

Κύπρος — το αύριο

ΣΧΕΔΙΟ ΑΝΑΚΑΜΨΗΣ ΚΑΙ ΑΝΘΕΚΤΙΚΟΤΗΤΑΣ



Cyprus Recovery and Resilience Plan 2021-2026



REPUBLIC OF CYPRUS



European Union

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FOREWORD

“Addressing the socioeconomic impacts caused by the COVID-19 has been set on the top of our priorities since the outburst of the pandemic.

Learning from the pandemic and turning the crisis into an opportunity, coming out of it even stronger than before, is our new goal. We need to move forward more prepared to be able to effectively deal with new challenges, risks and potentials.



Next Generation EU has paved the way towards greener, digitally transformed, stronger and resilient economies. To this end, our national plan, which sets out an ambitious but at the same time realistic set of reforms and investments, reflects our commitment to make the most of the possibilities given to us via the Recovery and Resilience Mechanism. A key initiative, which, through strong collaboration, is instrumental in achieving our goals towards sustainability and competitiveness, at both national and EU level.”

Constantinos Petrides, Minister of Finance of the Republic of Cyprus

EXECUTIVE SUMMARY

The Cyprus Recovery and Resilience Plan (the “RRP” or the “Plan”) reflects the integrated, ambitious and at the same time realistic plan of the Republic of Cyprus, for the effective utilisation of €1,2 bln to be allocated to Cyprus for the period 2021-2026, by the EU Recovery and Resilience Facility (the “RRF”).

The strategic objective of the RRP is “*to strengthen the economy’s resilience and the country’s potential for economically, socially and environmentally sustainable long-term growth and welfare*”. The RRP has been developed around five policy axes, namely (1) Public health, civil protection and lessons learned from the pandemic, (2) Accelerated transition to a green economy, (3) Strengthening the resilience and competitiveness of the economy, (4) Towards a digital era and (5) Labour market, social protection, education and human capital. Each policy axis comprises of appropriate country-specific investments and reforms that take into account the need to mitigate the economic and social impacts of the COVID-19 crisis and to strengthen the resilience and transformation of the economy through a robust new growth model which will contribute to enhancing resilience, sustainability and efficiency of the economy and to achieving the Union’s goals for the green and digital transitions.

The RRP is a key tool to repair, restart, and reconfigure Cyprus’ economic and social composition to positively impact the citizens’ well-being, the quality of human capital and the labour force, the efficiency of its institutions and the Country’s effective green and digital transition. The reforms outlined in the RRP recognise the need for resilience against unprecedented shocks and to deliver a cultural shift addressing the whole spectrum of the economy and society: public administration, private sector as well as all citizens. Cultural resilience can act catalytically towards the

development and success of a country's economic initiatives since it can bring about effective changes in society, which in turn have a positive impact on economic development.

Through the measures of RRP, the aim is to promote Cyprus as:

1. A country with high levels of resilience, productivity and competitiveness through a sustainable model of long-term growth;
2. A country where the education system and workforce development are aligned with the skills needed for the future;
3. A country that is among the pioneers in Green and Digital transition;
4. A country with a resilient health system that follows best practices from top health systems around the world;
5. A welfare state with a strong protection network for those in need of state assistance; and
6. A state of law, transparency and accountability, with strong anti-corruption mechanisms.

The RRP moves within the framework and directions specified by the long-term economic strategy (LTES) being prepared on behalf of the Cyprus Economic and Competitiveness Council, filtered by the European Commission's guidelines under the RRF, and encompassing the implementation of the Country Specific Recommendations in the context of the European Semester. The LTES aims to formulate and implement a new ambitious, long-term strategy and growth model, in order to fulfil the vision of transforming Cyprus into an international model based on a thriving and prosperous economy, with a high level of competitiveness, increased productivity and export orientation, at the same time encompassing a fair and inclusive society.

In alignment to this vision, the RRP contains reforms and investments under the above 5 policy axes and their respective components, 13 in total, with a total budget amounting to €1,2 bln. Through a number of targeted measures with a green and / or digital dimension, under almost all the policy axes, it is estimated that around 41% of the Plan contributes to the green transition and around 23% to digital transformation.

According to its economic impact assessment, the Cypriot RRP is expected to have significant macroeconomic impact in the short, medium and long term. More specifically, the results of the relevant assessment show that:

- ✓ The RRP can increase the GDP of Cyprus by about 3% in the short-term and by around 7% in the medium-term), compared to the baseline development of the economy without the RRP.
- ✓ The contribution of productivity to GDP and employment rises from 10,6% and 13,2% in the short-term and 23.5% and 29.3% in the medium-term.
- ✓ The Plan also increases employment by more than 2,5%, or by around 11,000 new jobs during the period 2021-2026, which can significantly reduce the unemployment rate in Cyprus.

Reforms, among others, of public and local administration, the judicial, and the labour market significantly affect productivity and GDP growth, in the medium-term and especially in the long-term. In the short-term, GDP growth is mainly induced directly by RRP investments and to a lesser extent by an increase in productivity and by additional employment stimulated by the Plan. In the medium-term, the effect of productivity becomes stronger due to the full implementation of reforms.

The positive effects of the RRP are projected to be largely maintained in the long-term. GDP levels are expected to be 16,5% higher 20 years ahead (i.e. in 2041) compared to a scenario without RRP implementation. This is mainly due to the lasting contribution of productivity (reforms), if all reforms foreseen in the RRP are realised.

PART 1
**GENERAL OBJECTIVES AND COHERENCE OF THE
PLAN**

PART 1: GENERAL OBJECTIVES AND COHERENCE OF THE PLAN

Introduction

Purpose of the plan and governance arrangements for its preparation

Cyprus's Recovery and Resilience Plan (the "RRP" or the "Plan") has been prepared on the basis of Articles 4(7), 18(4)(a) and 18(4)(c) and taking into consideration the criteria set out in Article 19(3)(a) and Annex V of the Regulation of the European Parliament and of the Council establishing a Recovery and Resilience Facility ("RRF") in order to obtain financing from this instrument. The strategic objective of the RRP is *"to strengthen the economy's resilience and the country's potential for economically, socially and environmentally sustainable long-term growth and welfare"*. The RRP has been developed around five policy axes, namely (1) Public health, civil protection and lessons learned from the pandemic, (2) Accelerated transition to a green economy, (3) Strengthening the resilience and competitiveness of the economy, (4) Towards a digital era and (5) Labour market, social protection, education and human capital. Each policy axes comprises of appropriate country-specific investments and reforms that take into account the need to mitigate the economic and social impacts of the COVID-19 crisis and to strengthen the resilience and transformation of the economy through a robust new growth model which will contribute to enhancing resilience, sustainability and efficiency of the economy and to achieving the Union's goals for the green and digital transitions.

The RRP contributes to and is aligned with, the following:

1. the Country Specific Recommendations ("CSRs");
2. the national priorities as reflected in the last National Reform Programme;
3. the existing national strategies and action plans, notably the National Energy and Climate Action Plan of January 2020 and the National Digital Strategy of June 2020;
4. the new Long-Term Economic Strategy for Cyprus ("LTES") to be completed by Q4 2021;
5. the EU green and digital transition agendas; and
6. the Youth Guarantee implementation plans, and the Territorial Just Transition plans under the Just Transition Fund.

The Council of Ministers' (CoM) decision of 22 August 2020 approved the overall priorities and governance structure for the RRP, according to which the RRP is being prepared by the Directorate General for European Programmes, Coordination and Development (DG EPCD), in cooperation with the Ministry of Finance (MoF) under the political guidance and supervision of the Minister of Finance. In order to secure the necessary coordination, by the same CoM decision, two committees were set up under the presidency of DG EPCD, one consisting of all Ministries which are responsible for the policy areas covered by the RRP, and another consisting of the three Ministries with policy responsibilities relating to green transition¹ and digital transformation². The latter was set up in order to ensure coordination as regards the green and digital elements of the RRP.

In preparing the Plan, extensive consultations have taken place with key stakeholders. Through this collaborative process, Cyprus has produced a plan that reflects the country's challenging, yet attainable, ambition to recover and emerge from the COVID-19 crisis more resilient and enhance its potential for sustainable long-term growth.

¹ Ministry of Energy, Commerce and Industry, Ministry of Agriculture, Rural Development and Environment and Ministry of Transport, Communications and Works

² Deputy Ministry for Research, Innovation and Digital Policy.

Context of the current state of the Cypriot economy

The global financial crisis of 2008 had a lagged and significant negative impact on the economy of Cyprus due to vulnerabilities in the country's banking sector and continuous deterioration of public finances. As a result, in June 2012, Cyprus requested assistance from the euro area and the IMF. In this context, the government implemented an EU-IMF macroeconomic adjustment programme during the period 2013-16, undertaking major reforms in the areas of public finance, the banking sector, the labour market and other structural and institutional reforms in key sectors of the economy, which resulted in stabilising and turning the economy into positive growth territory from 2015 onwards, whilst also addressing the social impact of the crisis. The successful and timely turnaround of growth trajectory demonstrates the economy's ability to overcome adversity and to recover relatively swiftly.

Since 2016, the government has continued its efforts to maintain financial stability and sustainable finances as well as to implement key structural reforms. However, despite significant progress, important challenges remain, including a high level of non-performing loans and private debt despite the deleverage that has taken place, concentration of economic activity in a limited number of sectors, reliance on imports, large investment needs in the areas of green and digital transition and relatively low competitiveness. At the same time, key reforms in areas such as public administration and local government reform, education, and the efficiency of the justice system have been planned and initiated but their completion is still pending.

The COVID-19 crisis took a toll on the economy and its social impact is extensive. The necessary measures taken by the government to protect public health as well as to address the ramifications of the country's heavy reliance on the services industries, including travel and tourism, on one hand mitigated the negative impact on growth, but on the other hand unavoidably had a significant impact on public finances. Furthermore, the crisis has widened further the investment gap vis-à-vis the euro area.

Building back better: Ensuring the RRP increases resilience and long-term economic growth

The RRP is a key tool to repair, restart, and reconfigure Cyprus' economic and social composition to positively impact the citizens' well-being, the quality of human capital and the labour force, the efficiency of its institutions and the Country's effective green and digital transition.

The reforms outlined in the RRP recognise the need for resilience against unprecedented shocks and to deliver a cultural shift addressing the whole spectrum of the economy and society: public administration, private sector as well as all citizens. Cultural resilience can act catalytically towards the development and success of a country's economic initiatives since it can bring about effective changes in society, which in turn have a positive impact on economic development.

Through the measures of RRP, the aim is to promote Cyprus as:

1. A country with high levels of resilience, productivity and competitiveness through a sustainable model of long-term growth;
2. A country where the education system and workforce development are aligned with the skills needed for the future;
3. A country that is among the pioneers in Green and Digital transition;
4. A country with a resilient health system that follows best practices from top health systems around the world;
5. A welfare state with a strong protection network for those in need of state assistance; and
6. A state of law, transparency and accountability, with strong anti-corruption mechanisms.

The RRP moves within the framework and directions specified by the project for the formulation of the LTES, thus preparing the ground for its implementation. This strategy, which is being

prepared on behalf of the Cyprus Economic and Competitiveness Council (“Council”), aims to formulate and implement an ambitious, comprehensive and long-term development strategy in order to make our country an international model based on a thriving and prosperous economy, with a high level of competitiveness, increased productivity and export orientation, at the same time encompassing a fair and inclusive society. Specifically, the strategy envisages the transformation of Cyprus into the “*Sustainable Business and Trade Centre of Europe*” with a simultaneous diversification of the production base, in a way that ensures long-term sustainable development. The development and utilisation of state-of-the-art technology as well as the promotion of environmental sustainability are key supporting parameters in all individual aspects of the vision, highlighting the level of ambition in terms of the contribution and future performance of Cyprus in terms of green and digital transition. The Plan is in fact moving in the direction specified by the LTES, filtered by the European Commission’s guidelines as reflected in the “pillars” of the RRF, whilst at the same time encompassing the implementation of the Country Specific Recommendations in the context of the European semester. Simply put, the LTES and the RRP are communicating vessels and are fully aligned.

In alignment to this vision, the RRP contains reforms and investments under the following policy axes and their respective components:

Policy axis / Component	Estimated budget (in euro mln)	Percentage of total estimated budget (%)
1. Public health, civil protection and lessons learned from the pandemic	74,1	6,0
1.1. Resilient and Effective Health System, Enhanced Civil Protection	74,1	6,0
2. Accelerated transition to a green economy	447,6	36,3
2.1. Climate neutrality, energy efficiency and renewable energy penetration	269,0	21,8
2.2. Sustainable transport	91,3	7,4
2.3. Smart and sustainable water management	87,3	7,1
3. Strengthening the resilience and competitiveness of the economy	449,3	36,4
3.1. New growth model and diversification of the economy	166,4	13,5
3.2. Enhanced research and innovation	64,0	5,2
3.3. Business support for competitiveness	78,4	6,4
3.4. Modernizing public and local authorities, making justice more efficient and fighting corruption	96,0	7,8
3.5. Safeguarding fiscal and financial stability	44,5	3,6
4. Towards a digital era	89,4	7,3
4.1. Upgrade infrastructure for connectivity	53,0	4,3
4.2. Promote e-government	36,4	3,0
5. Labour market, social protection, education and human capital	172,9	14,0
5.1. Educational system modernisation, upskilling and retraining	94,0	7,6
5.2. Labour market, social protection, social welfare and inclusion	78,9	6,4
Total	1.233	100
Green Transition	≈501	≈41
Digital Transformation	≈289	≈23

It is clarified that in addition to the measures included in the directly relevant Policy Axes (2 and 4), other measures with a green and / or digital dimension included in other Policy Axes also contribute to the green transition and digital transformation. As a result, the percentage (%) of the total cost of the Plan related to the financing of measures contributing to the green (41%) or digital (23%) transitions, exceeds the minimum percentages required by the Regulation (37% and 20%, respectively).

The total budget of the RRP amounts to € 1,233 bln, to be financed through grants of €1,006 bln (at current prices) and additional funding of €227 mln in the form of loan.

Finally, the RRP also includes an analysis of its overall impact (Part 4), a summary of the consultation process conducted for its preparation (Part 3), an outline of the communication strategy (Part 3) and a presentation of the Management and Control System (Part 3) to ensure the successful implementation of the Plan as well as compliance with the applicable Union and national law related to the protection of the financial interest of the Union and Cyprus, throughout its implementation.

1. General objectives and coherence of the plan

The overarching strategic objective of the RRP is to ***strengthen the economy's resilience and the country's potential for economically, socially and environmentally sustainable long-term growth and welfare.***

This strategic objective will be achieved through an appropriate mix of investments and reforms that will take into account the need to mitigate the economic and social impacts of the COVID-19 crisis, the need to strengthen the foundations and overall potential of the economy through a robust, new, diversified and sustainable growth model that will contribute to enhancing the resilience, sustainability and efficiency of the economy, social cohesion and to the achievement of the green and digital transitions.

The policy priorities presented in the form of investments and reforms contained under the five Policy Axes are complementary and synergetic and aim to collectively contribute to the economy's resilience and sustainable growth. At the same time, they transpose into the six specific objectives outlined by the European Commission guidance for the preparation of the national recovery and resilience plans as described below.

1.1 Green transition

Summary of key challenges

The need to focus resources on other areas of reform as well as toward the development of certain sectors to deliver economic growth has had a negative impact on the environment through time, hindering the Country's contribution in carbon neutrality.

In order to meet the EU targets toward the green transition, Cyprus is facing various challenges related to triggering green investments in households, enterprises as well as in municipalities, communities, the public and wider public sector and NGOs, making buildings, transport and other facilities and processes more energy and resource efficient preserving the environment and enhancing biodiversity and wildlife. These are summarised as follows:

Investment needs to reach the national energy efficiency and renewable energy target for 2030, are considerably high. They are expected to reach €12.893 mln for the transport sector and €816 mln for all other sectors as total investment cost, while the respective public financing needs are €1.890 mln and €386 mln, respectively. For increasing RES in heating and cooling, the total estimated investments cost for the period 2021-2030 will need to increase to €910 mln, as annual investment cost, cumulative up to 2030. To increase investments in RES in the electricity sector

(mainly PV, Wind and Biomass) the total accumulative investments cost up to 2030 is estimated to reach €1 bln.

In Cyprus there are more than 400.000 residential buildings and more than 30.000 non-residential buildings. Almost half of the residential buildings are single-family houses. The building stock of Cyprus is relatively new. However, as a result of the absence of any energy-related policy measure for the construction of these buildings, **most of the existing buildings have a low energy efficiency rating** which is reflected in the final energy consumption of the building sector, which rose dramatically since the late 1990s. Based on available statistics, no energy-saving measures have been taken in 49% of the homes, and some form of thermal insulation has been used on the building envelope only in 12% of the homes. Moreover, 83% of buildings used for the provision of services or other business purposes were constructed before adopting any minimum energy performance requirements.

Most **businesses claim that energy efficiency is of high priority to them**. However, smaller businesses are faced with a challenge to identify and/or implement adequate energy saving opportunities because they lack expert knowledge on the topic and / or due to high costs and lack of funding. It is important to note that electricity in Cyprus is expensive relative to the EU average, despite a relatively smaller proportion of taxes and VAT, which hampers business competitiveness.

The investments needed to significantly improve the energy efficiency require **high upfront costs** and finding suitable financing solutions is currently challenging, whilst although upfront investments are recovered from the generated energy and resource savings, the **payback period is often perceived as excessive**.

There is high **dependency on private vehicles** and high levels of aging vehicles not complying with current EU emission standards. At the same time, there is a lack of sustainable mobility and alternative **environment friendly fuel** infrastructure.

Eurostat's Water Exploitation Index shows that Cyprus has the highest rate of water exploitation in the EU, i.e. the highest rate of water abstraction, as a percentage of its long-term average available water from renewable freshwater resources. Cyprus supplements its low natural water supply with desalinated seawater to meet drinking water needs. This is an energy-intensive process, costly and polluting, relying on fossil fuels and contributing to greenhouse gas emissions. Climate change is exacerbating the country's **need to improve the water management** processes.

Contribution of various components

Cyprus prepared in January 2020 a comprehensive Integrated National Energy and Climate Plan (INECP). The components included under *Policy Axis 2 Accelerated transition to a green economy* are aligned with the INECP.

The RRP is a key means through which Cyprus will drive forward its green transition by devoting 41% of the estimated cost to climate objectives therefore complying with the draft RRF Regulation. The actions identified incorporate EC's recommendations in order to achieve the energy and climate targets in 2030 and beyond. These actions are primarily included in the following components:

Component 2.1 Climate neutrality, energy efficiency and renewable energy penetration includes measures which contribute to Cyprus' transition to climate neutrality, through the achievement of the national targets in energy efficiency and renewable energy for 2030. Specifically, the component aims to improve the environment policy through measures relating to green taxation, the opening-up of the electricity market and the facilitation of licensing of renewable energy and renovation projects. It aims to improve the energy efficiency of the building stock and other infrastructure, and support green investments in SMEs, housing, the wider public sector and

NGOs. It also targets the alleviation of energy poverty through reduced energy and water bills, while improving affordability of housing and living conditions. Furthermore, the component aims to address Cyprus' energy isolation and thus its vulnerability to energy supply and price shocks.

Component 2.2 Sustainable transport champions the European Flagship 'Recharge and refuel' and promotes clean technologies towards a sustainable, accessible and smart transport by accelerating the replacement of conventional rolling stock with zero and low emission vehicles accompanied with the necessary infrastructure, the use of alternative and cleaner means of transport.

Component 2.3 Smart and sustainable water management contribute significantly to ensure water adequacy and to reduce water waste by employing a series of interactive measures to reform water management and introduce new technology, which targets both water supply and demand for smart and efficient water management measures.

Component 3.1 New Growth Model and diversification of the economy contributes to the green transition through measures designed to develop and promote circular economy. Specifically, **sub-component 3.1.4 Circular Economy** aims to enhance the Cyprus circular economy model through the implementation of a concrete action plan which focuses, inter alia, on creating a culture among citizens (sustainable consumption) and businesses (manufacturers/entrepreneurs), provide effective incentives for industry to invest in the circular economy and develop the necessary infrastructure.

Component 3.2 Enhanced research and innovation aims to strengthen linkages between research organisations and private firms, commercialise research results, increase intensity of R&D activity hence investments by both public and private organisations, and make research infrastructure accessible to the entire ecosystem. It also includes measures which contribute to the green transition such as, the thematic research and innovation funding program on Green transition.

It should be noted that a number of reforms included in the Plan, with zero or very low budget, significantly contribute to the climate objectives, amongst others, through investments promoted in the relevant fields, either under this Plan or within the context of other funding programmes and schemes. The green taxation, the water management reform as well as the regulatory reforms aiming to facilitate and accelerate investments in electric mobility, are amongst the reforms where significant spill-over effects are anticipated.

In the context of the Plan, such a spill-over effect is identified under Component 2.3. In particular, the Water Resource Management reform promoted under this Component is expected to serve to smart water management with additional environmental benefits, due to avoided external damages from water scarcity and water pollution. In combination with a levy on water consumption, expected to be introduced under the green tax reform, such reforms are expected to encourage investments in low-water-consuming equipment and / or smart water saving systems. To this end, increased climate coefficients have been assigned to a number of investments under Component 2.3, serving to smart and sustainable water management mainly via new technologies, to take account of the accompanying reform that credibly increase their impact on the climate objectives.

1.2 Digital transformation

Summary of key challenges

In terms of digital transition, Cyprus ranks 24th out of the 28 EU Member States based on the 2020 edition of the European Commission's Digital Economy and Society Index (DESI).

The latest available data (prior to the pandemic) shows that Cyprus has improved its scores on all DESI dimensions but mostly in terms of connectivity and use of the internet, although it still scores below the EU average.

It is also noted that Cyprus ranks above the EU average on mobile broadband take-up but well below the EU average on the take-up of fast broadband. Over 10% of Cypriots have never used the internet, and one in two lack basic digital skills. Despite growing demand in the labour market, the supply of ICT specialists is still below the EU average.

Contribution of various components

The RRP is a key means through which Cyprus will drive forward its digital transformation by devoting 23% of the estimated cost to digital objectives therefore complying with the draft RRF Regulation. The actions identified incorporate recommendations stemming from the new National Digital Strategy (June 2020), which aims to achieve the digital transformation of the public sector, promote the digital transformation of the private sector, and promote innovation in line with the Country's level of digital maturity. These actions are primarily included in the components under the *Policy Axis 4 Towards a digital era*:

Component 4.1 Upgrade infrastructure for connectivity aims to bridge divides and ensure an inclusive digital transformation. Ensuring adequate access to communication infrastructures for all citizens is essential for the realisation of the opportunities of digital transformation. Specifically, it aims at ensuring 5G and fibre coverage for 100% of the population living in organised communities, including deployment of 5G along the main terrestrial corridors, and enabling universal and affordable access to Gigabit connectivity in all urban and rural areas, including 5G and Gigabit connectivity, in line with the EU's 2025 5G and Gigabit connectivity objectives.

Component 4.2 Promote e-government is a fundamental part of the overall policy and strategy of the Government for the digital transformation of Cyprus, fostering a new economic model with a vision to become a dynamic and competitive economy, driven by research, scientific excellence, innovation, technological development and entrepreneurship, and a regional hub in these fundamental areas.

In addition to these two components there are digital projects which relate to other CSR/reform areas and appear under the corresponding axes/components – e.g. Digital Transformation of Courts, Smart Cities and Reform of the Law Service under *Component 3.4 Modernizing public and local authorities, making justice more efficient and fighting corruption* and Deployment of generic cross border eHealth services in Cyprus under *Component 1.1 Resilient and Effective Health System, Enhanced Civil Protection*.

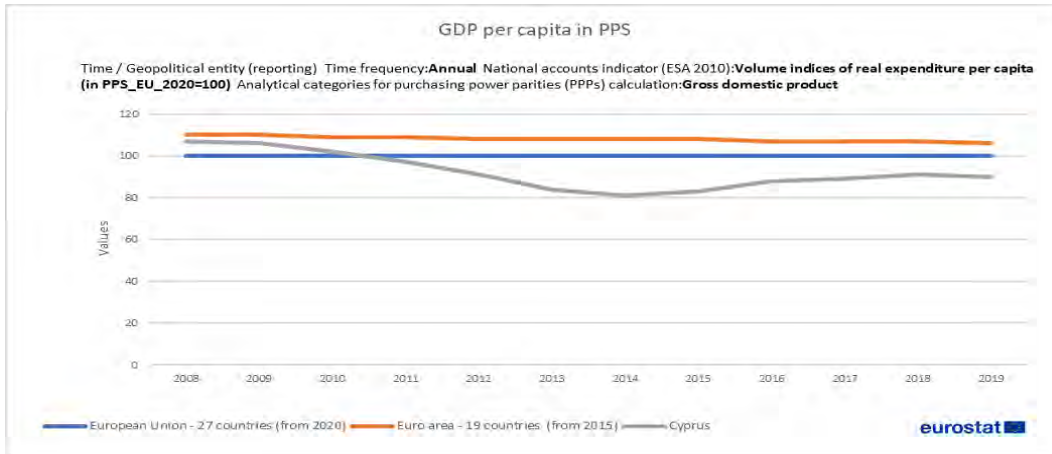
1.3 Smart, sustainable and inclusive growth

Description of the objective

In line with the Union's objective for smart, sustainable and inclusive growth, it is necessary to focus on measures that will lead to fast, robust and inclusive recovery and an accelerated GDP growth on a sustainable basis through real increase in output.

Summary of key challenges

Since 2015, Cyprus has made an impressive recovery, experiencing some of the fastest **economic growth** in the EU over the past five years. GDP growth has averaged 4.5% per annum, compared to a EU27 average of 1.7% per annum. However, in 2018, Cyprus' GDP per capita in Purchasing Power Standards (PPS), indexed to the EU27 average was still below the EU average (at 91%) and compared to the Eurozone countries, the gap is bigger at 85%.

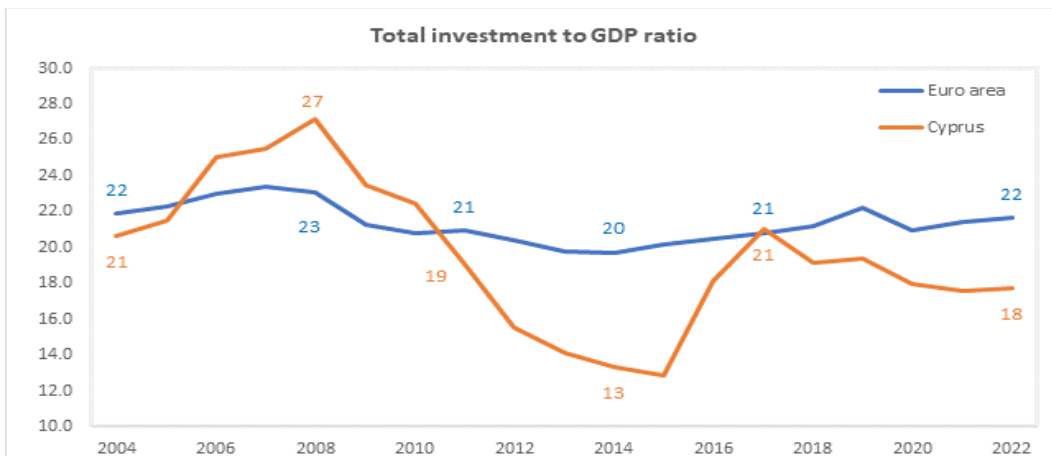


Source: Eurostat, dataset TEC00114 - GDP per capita in PPS (EU27_2020=100)

Cyprus’ underperformance in terms of economic growth is principally a result of low competitiveness, investment gap and a less diversified economy.

One of the long-standing challenges of the Cyprus economy is that economic growth has been reliant on specific sectors. Five sectors, namely construction, real estate services, travel and tourism, and wholesale and retail trade make up 70% of the country’s GDP. Whilst this is expected in a small and service-orientated economy, and despite the fact that some new sectors such as the ICT sector have been growing, the lack of adequate diversification is compounded by the fact that most of these sectors are reliant on external demand and are linked to international businesses and investments thereof. This makes Cyprus vulnerable to external shocks and has a negative impact on the economy’s overall resilience. At the same time, the outlook of some of the traditional sectors in terms of their potential for sustainable growth is now less positive than before. These facts point to the **need for further diversification of the Cyprus economy** as well as for actions to enhance the competitiveness and thus, growth prospects of existing sectors.

Moreover, as far as the **size and composition of investments** is concerned, since 2011, gross fixed capital formation as a percentage of GDP is below the euro area average, by 3,7p.p. From 2015 onwards, the gap narrowed to 2,8p.p., however the COVID-19 crisis has caused it to worsen further, projected to rise to 3,8p.p. by 2022. In addition, investment is largely concentrated in the construction sector – in particular, residential construction. The abolition of the Cyprus Investment Programme is expected to lead to more investments in other productive sectors.



In Cyprus at times of stress, productive investments decreased significantly. For example, investments proportion to GDP dropped from around 22% in 2010 to 13% in 2014 and in specific productive investments as proportion of GDP dropped from around 14% in 2010 to around 6% in

2014 - a drop of 8p.p. in less than four years. Overall, even today the levels of total and productive investment remain lower than the EU27 average for the period 2001 - 2019. For example, in 2019 for Cyprus the level of investments amounted to 19,4% of GDP, compared to an EU average of 22,2% and productive investments amounted to 9,6% of GDP, compared to an EU average of 16,7%. This also has a negative impact on productivity levels, which are lower relative to the EU27 average. There is a need to shift focus to productive investments as well as investments relating to the climate transition, which whilst promoting sustainability, will also have a positive impact on the economy's competitiveness.

Service exports are key to the Cypriot economy in terms of their contribution to GDP and are driven by four key sectors, namely travel and tourism, transport, finance and insurance, and ICT each of which accounts for around 20-25% of service exports, indicating a relatively concentrated market.

Cyprus's travel and tourism sector is currently reliant on international visitors and specifically the tourism receipts from two countries which account for two-thirds of total visitors. The lack of diversification in the number of countries that travel to Cyprus could expose the country to a demand shock due to economic, social and political developments. The coronavirus pandemic is a striking example of this. While the number of tourism numbers has continued to grow in recent years, growth in international tourism revenue has been stagnant, driven by a decline in the average expenditure per person/trip. This, combined with the fact that tourists are becoming ever more price conscious, aided by the abundance of online price comparison websites, reliance on "sun and sea" tourism may leave the island vulnerable to competition elsewhere, especially from neighbouring Mediterranean countries.

Furthermore, reliance on "sun and sea" as the main offering results in overcrowding during peak periods and an underuse of tourism infrastructure in off-peak periods. Finally, Cyprus' travel and tourism sector is reliant on the island's natural capital and is responsible for the degradation of this same natural capital. Overexploitation of attractions and oversaturation of tourist areas and peaks of demand for water and energy, combined with Cyprus' poor water and waste management and reliance on fossil fuels are reducing the sustainability of the tourism sector. There is a need for decisive efforts to shift towards eco-friendly tourism services, such as agrotourism, and to limit the flow of investment in accommodation and infrastructure, in order to address the risk of losing the sector's appeal and profitability. Furthermore, Cyprus could be promoted as a secure and safe destination (taking advantage of the good epidemiological conditions).

The growth of the ICT sector in recent years has helped to increase diversity in the Cypriot services export market; ten years ago, transport, travel, and finance and insurance each comprised around a third of service exports. As the ICT sector has doubled its share of the export market from 10% in 2008 to 20% in 2018, the finance and insurance sector has decreased in importance from 30% to 20% over the same time period.

In terms of exports of goods, the Cypriot market appears even less diversified, with industrial products of mineral or manufacturing origin accounting for almost 80% of exports in 2018. The former consists mainly of mineral fuels and oils, driven by the new petroleum distribution terminal that opened in 2014 in Limassol. Looking at more detailed product groups, just five products account for 70% of Cyprus' total exports; these are ships and boats (34% of total exports in 2018)³, petroleum oils⁴ (21% of total exports), medicaments (7% of total exports), cheese and curd (5% of total exports), and telecommunication equipment (4% of total exports).

³ It is noted that the proportion of Special Purpose Entities within goods trade is high, accounting for around a third of total goods trade, including registrations and de-registrations of ships

⁴ It is noted that exports reported in the category "petroleum oils" are re-exports.

Based on both the WEF and IMD Competitiveness rankings, Cyprus’ performance is below the EU average. The table below summarises a sample of the indicators in which Cyprus performs less well:

Report	Cyprus ranking	Weak performance
WEF Global Competitiveness Index	Cyprus: 44 out of 141 EU average: 31	Market size Innovation capability Financial system
IMD World Competitiveness Rankings	Cyprus: 41 out of 63 EU average: 32	Technological and scientific infrastructure Finances Management practices Domestic economy

Source: World Economic Forum – ‘The Global Competitiveness Report 2019’, International Institute for Management Development – ‘World Competitiveness Rankings 2019’

There are some common themes across both indices. Cyprus scores low on issues that relate to ICT and digital, as well as innovation indicators, such as entrepreneurial culture. Business efficiency measures such as productivity and management also allocate Cyprus a lower score. Weaknesses in institutions are apparent across both, namely efficiency in the judicial system and the readiness of the country for future change. Cyprus is also penalised for the size of its economy as well as the high levels of indebtedness – both public and private.

The relative position of Cyprus in terms of **competitiveness** is a consequence of the competitiveness of its factors of production – i.e., of its labour, capital and productivity – restricted further by the fact that Cyprus has a very high proportion of small and medium enterprises (SMEs). Beyond the impact on competitiveness these factors also lead to social and environmental challenges.

Cyprus also experiences low levels of **labour productivity**, when measured as a percentage of the EU27’s average (in 2018 Cyprus had nominal labour productivity per person employed and hour worked of 75,8% indexed to the EU27) and it has been largely stagnant over the past decade, increasing by just 1% over the past four years. In Cyprus, low productivity is a function of the institutional, economic and technological challenges prevalent across the country.



Source: Eurostat, dataset TESEM160 - Labour productivity per person employed and hour worked (EU27_2020=100)

Total Factor Productivity growth has not been the key driver for Cyprus' growth which diverges from the experience of other advanced economies. Specifically, in the 2015 to 2018 period more than half of the growth in GDP was driven by employing more people i.e. work 'more' rather than using the existing stock of workers more efficiently i.e. work 'smarter'. In fact, in 2015, TFP growth was 10% lower than it had been a decade before in 2005. TFP growth continued to steadily fall in the first half of the past decade, perhaps reflecting the building of stress in the financial system until 2013. Since 2013 TFP growth has picked up to some extent but remains relatively low.

Another challenge that needs to be addressed is that of **skills mismatch**. Evidence suggests that educational outcomes in Cyprus are not fully aligned to businesses' needs. For example, while the employment rate of recent graduates has steadily increased since 2013, growing almost 8% between 2017 and 2018 to 79%, around a third of graduates are employed in occupations that do not require tertiary education. This proportion has remained relatively stable over the past decade, indicating persistent structural challenges in the matching of labour market participants to appropriate employment relevant to their capability and skills. This could also indicate that the Cypriot economy lacks the capacity to create high-wage, high-productivity jobs. Based on Eurostat data, Cyprus also appears to have a significantly higher skills mismatch in the areas of which require high levels of technical competency including computing, science and mathematics.

Cypriot businesses are also constrained by a **lack of diversity in sources of investment finance**. There is a relatively inactive and small stock market. Three-quarters of external investment finance comes in the form of bank loans (excluding subsidised bank loans, overdrafts and other credit lines). A further 20% is generated from other forms of bank finance, leaving less than 5% financed through grants, additional loans, factoring/invoice discounting and newly issued bonds. As analysed further below, Cyprus still has a high stock of NPLs. The high levels of NPLs combined with still high administration costs weigh significantly on banks' profitability and the overall stability and competitiveness of the banking sector. As a result of the above, although nominal borrowing costs are low by historical standards, Cyprus has one of the **highest borrowing costs** for non-financial corporations at 208% of the Eurozone average during the first 11 months of 2020. Given the high proportion of small firms in Cyprus that tend to rely on banks as their main source of finance, these costs may place a burden on them relative to other European jurisdictions and so act as a source of comparative disadvantage.

Cyprus' ranking in the World Bank **Ease of Doing Business** Index (EODB) has been relatively volatile, and currently stands at 54th place out of 190 countries. This compares to an average EU rank of 40. There is also considerable variation within Cyprus' scoring. The country performs strongly on paying taxes, and relatively well on starting a business and resolving insolvency. Its performance on the latter has been driven by the government's recent improvements to reforming the insolvency framework through the country's Action Plan for Growth and recommendations from other bodies including the European Central Bank.

By mid-January 2021 more than 80 fiscal and borrowing measures with a total budget cost of €1,6 bln have been taken toward the strengthening of the protection network of both workers and vulnerable groups, as well as for health protection, the proper functioning of the public and wider public sector and for the protection and support of both citizens and businesses.

In addition, to strengthen market liquidity by utilising the tools offered by the European Union, three liquidity plans have been approved in cooperation with the European Investment Bank (EIB) which are expected to contribute more than €1,7 bln to the market liquidity.

The comprehensive and coherent support measures implemented so far have actively supported companies and citizens and have acted as a catalyst in maintaining the disposable income of the citizens. According to the European Commission's assessment of the 2020 Stability Programme during the first wave of the COVID-19 pandemic, the measures taken by Cyprus were in line with

the guidelines set out by the Commission in the relevant communication on a coordinated economic response to the COVID-19 outbreak.

Moreover, according to the Commission's updated assessment (published on 18.11.2020), the Draft Budgetary Plan of Cyprus for 2021 is overall in line with the recommendation adopted by the Council on 20.7.2020. Most of the measures set out in the Draft Budgetary Plan of Cyprus are supporting economic activity in an environment of considerable uncertainty. Cyprus is invited to regularly review the use, effectiveness and adequacy of the support measures and stand ready to adapt them as necessary to changing circumstances.

Despite the temporary support measures adopted by the Government, Cyprus' economy will be seriously affected by the COVID-19 outbreak, as is the case with all European economies. According to the latest estimates by the MoF, GDP is estimated to have declined by 5.5% during 2020. Even though the economy is expected to start recovering next year, forecasting a 4.5% growth compared to 2020, uncertainty and risks remain very high while the state's ability to provide further support outside the RRP is limited.

Contribution of various components

The RRP serves the purpose of providing a cyclical stimulus to the economy, directly and indirectly. In terms of direct measures, beyond the various investments that increase resilience and enhance cohesion, the RRP contains various investment initiatives which are expected to have a high-multiplier impact on the economy as well as promoting the green transition. In terms of indirect stimulus, the RRP includes certain fiscal support measures that are justified at a time of crisis as well as measures which will contribute to increased employment, upskilling and reskilling of the workforce and overall enhancement of the competitiveness of the Cypriot economy.

Component 2.1 *Climate neutrality, energy efficiency and renewable energy penetration* leads to economic growth through the adoption of a set of reforms and investments that aim at carbon neutrality and stimulation of significant local investments to improve the energy efficiency of the building stock and other infrastructures, support green investments in SMEs, the wider public sector and NGOs and foster the adoption of digital technologies. Policy reforms relate to green taxation, facilitation of the liberalisation of the electricity market, and licensing of renewable energy and renovation projects. A series of incentives aim at promoting investments by businesses in the aforementioned areas in addition to the public investments. This transformation will stimulate growth and job creation, both directly through the implementation of the required investments, as well as indirectly through the resulting increase in the competitiveness of businesses and the economy overall through reduced energy costs and increased attractiveness to foreign investors.

Component 2.2 *Sustainable transport* helps achieve economic efficiency through the promotion of clean technologies towards sustainable, accessible and smart transport, by accelerating the replacement of conventional rolling stock with zero and low emission vehicles, accompanied by the necessary infrastructure, the use of alternative and cleaner means of transport and wider use of public transport.

Component 3.1 *New growth model and diversification of the economy* contributes to this objective through the promotion of a resilient and competitive primary sector, the promotion of an innovative and competitive secondary sector, the promotion of a sustainable, high value-added tourism sector and the further development of a circular economy.

Specifically, the measures on primary sector focus on developing a competitive agriculture sector primarily through agri-tech and strong collaboration with business, higher-education institutions and research centres to excel.

The measures regarding the secondary section focus on developing a competitive light manufacturing sector that includes production in areas of green-tech, agri-tech, etc.

The measures concerning the tourism sector focus on enhancing the sustainability and added value of the tourism sector and includes suggestions for multiple investments linked to reforms, under the implementation of a new tourism strategy for sustainable development, greening of tourism and development of the tourism sector in the mountains, remote and inland areas.

Finally, the measures on the circular economy include a series of reforms which fall under the objective of enhancing the circular economy model through the implementation of a concrete action plan. The action plan includes actions that focus, inter alia, on creating a culture both among citizens (sustainable consumption) and among the manufacturers/entrepreneurs themselves, effective incentives for industry to invest in the circular economy and creation of the necessary infrastructure.

Component 3.2 *Enhanced research and innovation* focuses on strengthening the linkage and collaboration between research and industry, the commercialisation of research results, the increase in intensity of R&D activity hence investments by both public and private organisations, and in making the research infrastructure accessible to the entire ecosystem. Furthermore, it aims to enhance the financial support to start-ups, scale-ups and SMEs and to internationalise the local research and innovation (R&I) ecosystem while developing local talent and attracting talent from abroad to work in R&I with emphasis on specific thematic areas. These objectives will be achieved by utilising policy tools and processes to support the effective operation of the new R&I Governance System, the development of a comprehensive national R&I Strategy, the introduction and enrichment of incentives for local companies to invest in R&I and to attract foreign investment in R&I as well as reforms in the institutional framework pertaining to knowledge transfer.

Component 3.3 *Business support for competitiveness* includes reforms and investments which will lead to increased competitiveness through a simplified and investment-friendly business environment, an increase to the productivity of SMEs and better access to finance and internationalisation opportunities for Cypriot companies. These measures include an integrated framework for the procedures related to the investment and entrepreneurial activity in Cyprus and modernisation of the Cyprus Companies Law to address the current needs of companies, including the insolvency framework. Furthermore, measures include, capacity building through the provision of consulting and mentoring, the digital upgrade of the enterprises and the provision of incentives aimed at improving the productivity of the business community, and especially that of SMEs.

Reforms will also be implemented to facilitate and promote the creation of alternative financing mechanisms like equity funding, to meet the financing needs of enterprises, especially innovative enterprises and start-ups.

Also, this component includes the granting of interest rate subsidies for business loans to self-employed persons, SMEs and large enterprises thus enhancing the government's effort to support businesses outlast this unprecedented crisis.

Component 3.4 *Modernizing public and local authorities, making justice more efficient and fighting corruption* aims towards a modern, effective and transparent public administration that will ensure the provision of quality services to citizens and enterprises. In turn these actions will provide a favourable environment for further enhancing the "ease of doing business" and attracting additional investment activity in Cyprus, as well as promoting social prosperity and equality. To this end, this component includes a series of institutional and administrative reforms as well as a series of targeted investments aiming to upgrade the functioning and the services provided by a modernised public sector, an effectively reformed local administration and a reorganised judicial system, which combined with enhanced efforts for mitigating and tackling corruption, will all serve towards sustainable growth and increased resilience of the Cyprus economy.

Component 3.5 Safeguarding fiscal and financial stability in turn includes measures to improve the resilience of the economy through fiscal and financial stability. It includes strengthening and safeguarding the soundness of the banking system through an array of reforms including addressing NPEs and consolidating the insolvency framework, measures for combating private indebtedness as well as the enhancement of the supervisory function for insurance and pension funds as well as CYSEC. At the same time, it aims at increasing the efficiency, effectiveness and fairness of the tax system and tax administration and securing revenue collection.

Component 4.1 Upgrade infrastructure for connectivity ensures an inclusive digital transformation and adequate access to communication infrastructures for all citizens which is essential for the realisation of the opportunities of digital transformation. Through investments in infrastructure and reforms leading to a fair and competitive digital economy, an open, democratic and sustainable digital society and establishing Cyprus as a seamless business environment for the region.

Component 4.2 Promote e-government promotes e-government/digital public services mainly through the digitalisation of various Central Government Ministries and Services / Departments. It also includes actions that lead to improvements in the delivery, maintenance and operating model of large-scale e-government projects.

Component 5.1 Educational system modernisation, upskilling and retraining contains reforms and investments focused on enhancing the quality and effectiveness of education at all levels, to help all students acquire the right skills and competences for today's and tomorrow's society and economy therefore reducing the skills mismatch.

1.4 Health, and economic, social and institutional resilience

Description of the objective

The objective is to take measures to create more resilient economies that will be able to (i) reduce vulnerability to shocks; (ii) increase shock absorption capacity; and (iii) improve ability to recover quickly after a shock.

Summary of key challenges

At the start of the 21st century, the share of over 65 years olds in Cyprus' total population was 10%, increasing to around 15% at present and expected to rise to around 25% by 2050. **Ageing population** poses numerous economic, social and political challenges and amongst others they put significant resource pressure on health and social care. On its own this challenge calls for actions to ensure the adequacy of the healthcare system to cope with the emerging demographics. Additionally, as noted in the strategy of the Ministry of Health, the relative infancy of the National Health System (NHS) still presents challenges for Cyprus, both in terms of healthcare infrastructure as well as management of resources.

Additionally, in the area of **public health**, the COVID-19 pandemic revealed some structural failures as to the coordination of surveillance actions, long-term planning and monitoring techniques. Communicable diseases are of high-risk impact for the healthcare systems and their sustainability. The situation is riskier in the case of cross border health threats and pandemics. All efforts towards the resilience of the healthcare system ought to be compatible with the digital framework of the Country and the digital solutions available in the healthcare sector. Compatibility of e-health solutions and interoperability among the existing systems are major challenges in the area of health.

The recent pandemic further highlighted the importance of the preparedness of both the state and the general population to deal with emergencies and, in particular, the role of **Civil Protection** in a way that is directly useful to the state and society.

The economy's high concentration in a limited number of sectors, already outlined under section 1.1 above, renders it vulnerable to external shocks causing it to suffer relatively larger impacts from external crises compared to countries with diversified economic bases and thus has a significant bearing on its economic resilience and adjustment capacity.

Cyprus economy is experiencing **high levels of indebtedness**. Household debt as a percentage of GDP remains around double the average for the EU27. Cyprus' government debt remains above the EU's Stability and Growth Pact threshold of 60% of GDP and is one of the highest in the Eurozone and the EU. In comparison, most of the other countries that joined the EU along with Cyprus in 2004 have significantly lower relative levels of government debt as a proportion of their GDP. Following the global financial crisis, and spurred on further by the 2013 Cyprus crisis, public finances deteriorated, culminating in a government deficit of almost 9% of GDP and government debt of almost 110% of GDP in 2014. Over the past five years, there have been significant improvements on this front, bar the one-off deterioration in 2018 owing to one-off support measures for the Cyprus Cooperative Bank. Projections made ahead of the ongoing COVID-19 pandemic expected gross government debt to fall steadily from 100% of GDP in 2018 to 80% of GDP in 2021. However, the inevitable decrease in revenues and the inevitable increase in government spending required to support business and workers at risk of losing their jobs has led to a further increase in government debt.

The **level of NPLs** presents a challenge that needs to be addressed in order to increase the economy's resilience. In addition to the high NPL ratio, Cyprus has a high level of domestic credit as a percentage of GDP. This compares at 114% for Cyprus against the EU27 average of 86% for 2019. While credit flowing to the domestic private sector supports business growth, at the same time it poses a risk to the health of the banking sector therefore also impacting the resilience of the economy.

Total tax revenue equated to 34% of GDP in 2018, lower than the EU average of 39%. At the same time, income from taxes derives from a **relatively narrow tax base**, which is heavily dependent on consumption and corporate income tax. Taxes on labour are significantly lower than EU average at 12% of GDP, compared to the EU average of 20%. While having lower taxes on labour that have a positive impact on growth by attracting businesses to Cyprus at the same time, excessive reliance on too few sources of taxation means that Cyprus is potentially vulnerable to changes in the international corporate tax framework, which may cause companies to relocate thus depleting significantly the public finances.

Contribution of various components

Component 1.1 Resilient and Effective Health System, Enhanced Civil Protection focuses on the promotion of reforms and investments in the healthcare sector that will increase the efficiency, accessibility and overall resilience of the NHS. It also includes specific measures towards the development of policies and monitoring of key metrics to support data-driven decisions leading to assurance of adequate supplies and infrastructure that will improve the capacity of hospital units and the working conditions of health staff. In addition, it will provide the digitalisation of cross border healthcare and surveillance of infectious diseases, contributing to the digital transition and strengthening public health policies, assuring a patient-centred environment thus enriching social cohesion. Finally, it also includes incentives for hospitals to achieve a high level of standardised healthcare comparable to international standards and the accreditation of both private and public hospitals.

Also, the component includes the development of the strategic plan and coordination capacity for the treatment of COVID-19 patients. By strengthening the capacity of the main COVID-19 Care Unit, the need for further Units in other hospitals to treat COVID-19 patients will reduce, increasing predictability and effectiveness, coherence and capacity in the treatment of COVID-19 patients.

Furthermore, the component also includes a measure in relation to the overall enhancement of civil protection in terms of increased security measures to improve public safety, preparedness and resilience to imminent or developing disasters and the overall capability to handle emergencies.

Component 2.1 *Climate neutrality, energy efficiency and renewable energy penetration* includes incentives to renovate the existing stock of public buildings as well as social infrastructure and housing thus alleviating energy poverty concerns while improving affordability of housing and living conditions. In this respect, this component also contributes to social resilience.

Component 3.1 *New growth model and diversification of the economy*, which is based on output from the LTES, sets as its primary objective the reduction of dependence on a limited number of sectors of economic activity which are also susceptible to external shocks and enhance self-sufficiency in critical sectors.

Component 3.4 *Modernizing public and local authorities, making justice more efficient and fighting corruption* aims towards a modern, effective and transparent public administration that will ensure the provision of quality services to citizens and enterprises. To this end, this component includes a series of institutional and administrative reforms as well as a series of targeted investments aiming to upgrade the functioning and the services provided by a modernised public sector, an effectively reformed local administration and a reorganised judicial system, which combined with enhanced efforts for mitigating and tackling corruption, will all serve towards sustainable growth and increased resilience of the Cyprus economy

Component 3.5 *Safeguarding fiscal and financial stability* aims to improve the resilience of the economy through fiscal and financial stability. It includes measures toward increasing the efficiency, effectiveness and fairness of the tax system and tax administration and securing revenue collection. The component also includes measures to strengthening and safeguarding the soundness of, the financial system (banking, capital markets, society/users and beneficiaries of the system) through an array of reforms related to the high stock of NPLs and improvement of the insolvency regime as well as measures for combating private indebtedness as well as the enhancement of the supervisory function for insurance and pension funds.

Component 4.2 *Promote e-government* promotes e-government through the development of a predictable, transparent and trustworthy policy and regulatory environment, coupled with digital, user-centric and inter-operable public services and a modern, dynamic and attractive civil service. In this way, it contributes to the long lasting economic and social resilience.

Component 5.1 *Educational system modernisation, upskilling and retraining* contains reforms and investments focused on extending the entry age in compulsory pre-primary education and providing affordable childhood education and enhancing the quality and effectiveness of education at all levels, to help all students acquire the right skills and competences for today's and tomorrow's society and economy thus, also contributing to economic and social resilience.

1.5 Social and territorial cohesion

Description of the objective

In line with the Union's objective for social and territorial cohesion, it is necessary to focus on measures that will lead to enhancing cohesion, considering regional and national disparities, including the rural-urban gaps.

Summary of key challenges

While the Social Insurance Scheme covers compulsorily every person gainfully occupied in Cyprus either as an employed person or as a self-employed person, **employees** working with new

forms of employment such as zero-hour contract workers and digital platform workers do not enjoy the same protection as regular employees.

The labour market situation in Cyprus has deteriorated since the outbreak of COVID-19 pandemic as a result of the economic contraction (negative growth rate of -5,1% in 2020) resulting in an upward trend of **unemployment**, especially amongst the most vulnerable. The unemployment rate (15+ years old) increased to 7,6% in 2020 from 7,1% in 2019. Youth unemployment rate (15-24 years old) increased to 18,2% in 2020 from 16,6% in 2019. Unemployment of women in the age group 25-64 was higher than that of men of the same age group (7,3% vs 6,5% in 2020).

As regards the employment, there was a slight increase of the number of employed of 0,02% while the employment level (20-64 years old) dropped to 74,9% in 2020 from 75,7% in 2019 (69,1% in 2020 from 70,1% in 2019 for women and 81,1% in 2020 from 81,7% in 2019 for men). Youth employment rate (15-24 years old) dropped also to 31,3% in 2020 from 32,4% in 2019.

Outreach to young people Not in Employment, Education or Training (**NEETs**) continues to be one of the major issues as the Cyprus efforts to strengthen outreach activities by mapping and profiling the population of NEETs and by building partnerships with local actors have been interrupted due to the pandemic. According to DG Employment, the NEET rate for those aged 15-24, in 2019, was 13,7%. The unemployed NEETs accounted for 5,4% of the population aged 15-24 and 8,3% were inactive and not in education or training. The NEET rate for those aged 15-29 was 14,1% in 2019 compared to 12,6% for the EU-27.

Cyprus' spending on **social protection** is low relative to the EU. Compared to an EU27 average of 19% of GDP in 2018, Cyprus spent 12,5% of GDP, which accounts for around 29% of total government spending, significantly less than the 41% of total EU government spending on social protection. Most of social protection expenditure in Cyprus goes to pensions and healthcare, with relatively less being spent on benefits such as, family, unemployment, disability and housing.

The proportion of people at risk of poverty or social exclusion (AROPE) and of material and social deprivation is declining but still above the EU average (22,3% vs 20,1%) in 2019.

According to the Cyprus Country Report published in February 2020 early **childhood education and care** gap is higher for children under the age of three. While 92% of children aged four to six were enrolled in early childhood education and care (ECEC) in 2017 (EU average 95,4%), in 2018 31,4% of children under the age of three participated, below the EU average of 35,1% and the Barcelona target (33%). According to the same report, Cyprus relies heavily on informal settings or private institutions.

Free childcare is mainly limited only to guaranteed minimum income recipients, who also receive subsidisation for private childcare and that, depending on the age of the child, the type and provider of services, monthly fees range from €70 to €400, creating a disproportionate burden for families.

Contribution of various components

Component 1.1 Resilient and Effective Health System, Enhanced Civil Protection focuses on the promotion of reforms and investments in the healthcare sector that will increase the efficiency, accessibility and overall resilience of the NHS. In addition, it will contribute to the digital transition and strengthening public health policies, assuring a patient-centred environment thus enriching social cohesion. Finally, it also includes incentives for hospitals to achieve a high level of standardised healthcare comparable to international standards and the accreditation of both private and public hospitals.

Component 2.1 Climate neutrality, Energy efficiency and renewable energy penetration supports social resilience by providing incentives to renovate the existing stock of buildings, social

infrastructure and housing as well as alleviate energy poverty concerns in households with disabled people.

Component 3.4 Modernizing public and local authorities, making justice more efficient and fighting corruption contributes to this objective through investments such as the “Regeneration and Revitalisation of Nicosia Inner City” which aim to regenerate and revitalise the Nicosia inner city so as to provide an incentive towards attracting young residents in the area, new investments for enterprises and generally bolstering economic activity.

Component 4.1 Upgrade Infrastructure for Connectivity aims to bridge divides and ensure an inclusive digital transformation. Ensuring adequate access to communication infrastructures for all citizens is essential for the realisation of the opportunities of digital transformation.

Component 5.2 Labour market, social protection, social welfare and inclusion includes reforms and investment which aim at facilitating mainly youth and female employment, as well as members of the labour force with unforeseen caring responsibilities for children and other dependents, increasing employment for young people Not in Employment, Education or Training (NEETs).

Additionally, this component focuses on the reform of the Social Insurance System and the Restructuring of the Social Insurance Services as well as the investment for the improvement of the effectiveness of the Department of Labour and Public Employment Services, both of which will improve the capacity, efficiency and effectiveness of the aforementioned services, which will in turn reinforcing support for young people.

1.6 Promoting policies for the next generation

Description of the objective

In line with the Union’s objective for promoting policies for the next generation, it is necessary to focus on measures that will lead to the promotion of policies for early childhood education and care, education and skills, including digital skills, upskilling and reskilling, employment and intergenerational fairness.

Summary of key challenges

As previously stated, the Cyprus labour market situation has deteriorated since the outbreak of COVID-19 pandemic as a result of the economic contraction resulting in an upward trend of **unemployment**, especially amongst the most vulnerable; youth (15-24 years old).

Outreach to young people **NEETs** continues to be one of the major challenges as unemployed NEETS accounted for 5,4% of the population aged 15-24 and 8,3% were inactive and not in education or training. The NEET rate for those aged 15-29 was 14,1% in 2019 compared to 12,6% for the EU-27. Efforts to strengthen outreach activities to NEETs and build partnerships with local actors have been interrupted due to the pandemic.

Also, Cyprus faces challenges in relation to **early childhood education**. While 92% of children aged four to six were enrolled in early childhood education and care (ECEC) in 2017 (EU average 95,4%), in 2018 31,4% of children under the age of three participated, below the EU average of 35,1% and the Barcelona target (33%). According to the same report, Cyprus relies heavily on informal settings or private institutions.

As the Republic of Cyprus is facing an increasing **migration flow**, the number of unaccompanied minors entering the Republic has increased substantially and Cyprus faces a serious problem since the structures and programs currently operating to serve them are overloaded.

Additionally, the Cyprus labour market is characterised by **skill shortages** and a large digital and entrepreneurship skills gap.

Cyprus faces challenges regarding the modernisation of the **educational system** including the provision of quality education and better connecting the school with the labour market. CSR no.3 of 2019 asks Cyprus to “Deliver on the reform of the education and training system, including teacher evaluation, and increase employers’ engagement and learners’ participation in vocational education and training, and affordable childhood education and care”. CSR no.2 of 2020 explicitly states the need for “improving the labour-market relevance of education and training”.

Contribution of various components

Component 1.1 Resilient and Effective Health System, Enhanced Civil Protection includes the enhancement of the Makarios Hospital for Children to offer a complete treatment to children cases including Accidents and Emergency, Neurological cases, Intensive Care Unit for Neonates and rare children diseases.

Component 5.1 Educational system modernisation, upskilling and retraining focuses on the digital transformation of schools, while making sure that no child is left behind. Also, it includes the upgrading of school infrastructure and making appropriate equipment accessible to all students and teachers as well as supporting remote teaching. Moreover, it includes the upgrading and promotion of vocational education and training (VET) and more specifically its relevance to the Cyprus labour market and enhance its attractiveness. Similarly, the component addresses enhancing the attractiveness of STEM subjects from an early age.

The modernisation of both the primary and secondary education curricula, the digitalisation of education, the establishment of a new system for teacher and school evaluation, the addressing of skills mismatch between education and the labour market, and also the extension of free compulsory preschool education, are basic educational reforms which promote the improvement of students’ outcomes.

Component 5.2 Labour market, social protection, social welfare and inclusion includes the gradual extension of free compulsory pre-primary education from the age of four to promote, develop and ensure access to early childhood development and education. Also, it promotes affordable childhood education and equal opportunities to access education and motivates families to enrol their younger children to pre-primary schools by reducing financial barriers through grants to cover the tuition fees of private pre-primary schools. Moreover, it aims on the reduction of youth unemployment (aged 15-29) by increasing employment opportunities through subsidising a minimum wage level as motivation for employers to hire and retain individuals of the specific age group.

2. Link to the European Semester

Link to CSRs

Due to the extensive number of CSRs which need to be addressed, throughout the preparation of the RRP there was internal coordination within the DG EPCD which has the overall responsibility both for the RRP and the European Structural and Investment Funds (ESIF), in order to ensure that the measures under the RRP are complementary to the actions included under the ESIFs so as to achieve coverage of all relevant CSRs. Table A in Annex 1 sets-out how the contents of the RRP and the ESIF satisfy the CSRs.

In addition to the CSRs there are various other targets such as the actions for reduction of NPLs based on recent guidance from the European Commission as well as the Eurogroup statement of 30.11.2020. Furthermore, the most recent euro area Council Recommendations were considered in preparing the NRPP. The relevant components under Policy Axis 3 contribute to these actions.

Under the ESIF, the measures under Policy Objective 4 in response to 2019 CSR3.1 and 2020 CSR 2.2 include modernisation of the Department of Labour / Public Employment Services as well as various subsidy schemes especially addressing the youth, as well flexible working arrangements

for women. Under the same Policy Objective 4 there are also measures that provide VET, school actions for social inclusion, care services for very young children as well as young pupil support measures contributing to 2019 CSR3.2.

2019 CSR4.1 and 2020 CSR3.3 are addressed through various Policy Objectives. Under Policy Objective 1 there are various programmes for digitalisation of SMEs and promotion of Research & Innovation (R&I). Under Policy objective 2 there are measures of sustainable transport and environment protection as well as energy upgrade schemes for public and private buildings. Finally, under Policy Objective 3 there are measures for installation of traffic control management systems and upgrading of the existing road network to access remote areas.

2019 CSR4.3 and 2020 CSR3.1 are addressed through a combination of measures under Policy Objective 1 and Policy Objective 2. These include the enhancement of entrepreneurship, SME competitiveness in certain sectors of the economy and promotion of digitalisation of SMEs. It also includes the continuation of the current Energy Fund of Funds Financial Instrument.

2020 CSR2.1 is addressed through measures under Policy Objective 4 which include the restructuring of the Social Welfare Services, the enhancement of the Welfare Benefits Administration Service, home care services for persons with disabilities, as well as the provision of social support across various social groups.

Finally, 2020 CSR 4.2 is addressed through measures under Policy Objective 1 which includes digitisation projects in the public sector in the field of health and education, office automation of the public sector and Smart City infrastructure.

An analytical list is presented in Table B of Annex 1.

Link to the European Flagships

Analysis has been performed to map the reforms and investments, and thus Components, of the RRP to the European Flagships, revealing that the Cyprus Plan addresses all European Flagships and that most components correspond to one or more of the European Flagships. Please refer to Appendix 2.

In addition, existing strategies and targets (National Baseline) that are relevant and contribute to the European Flagships as well as the RRP reforms and investments were identified and mapped, revealing their alignment in terms of vision and objectives. Please refer to Annex 2.

3. Link to the United Nations 2030 Sustainable Development Goals

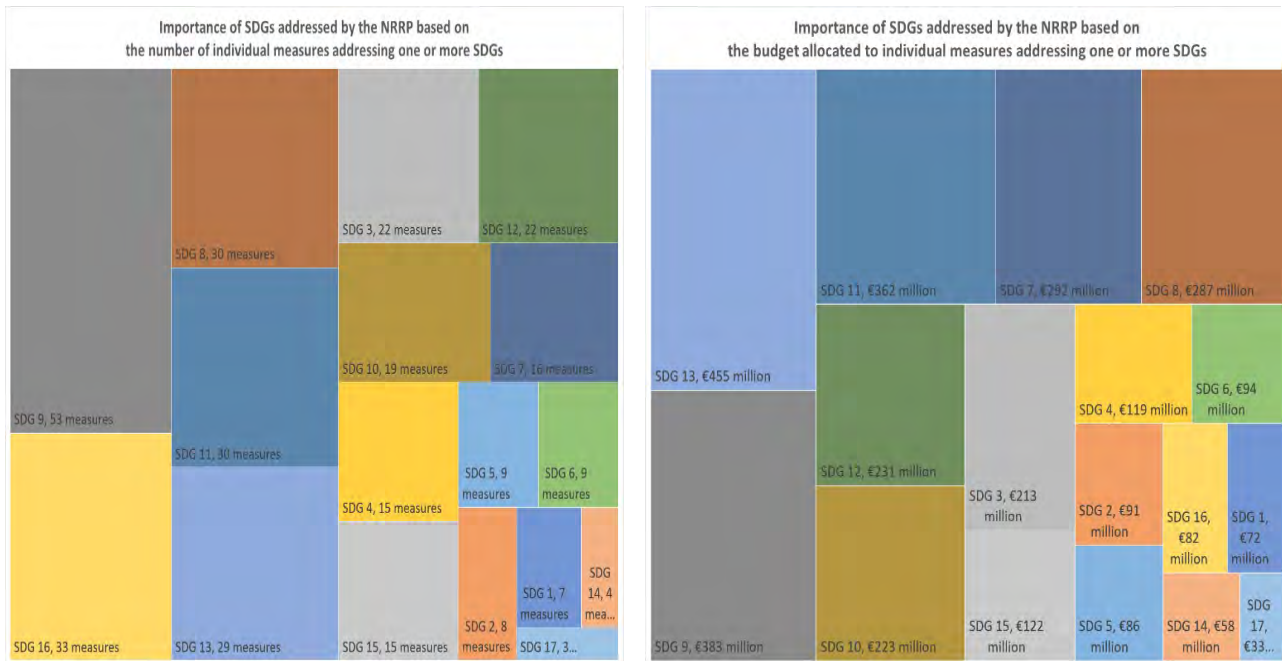
It is mentioned that, via responding to the CSRs the measures proposed under the RRP are expected to also address challenges identified under the UN Sustainable Development Goals (SDGs) for 2030, mainstreamed in the European Semester process as of last year. It should be noted that, a preliminary overview of the sustainable development governance in Cyprus pointed to the need for strengthening the country's SDG coordination mechanism with the view to make it a useful tool not only for conducting regular reviews of progress at the national level and for the purposes of Voluntary National Reports (VNR) submitted to the UN, but also for informing sectoral policies and programmes with SDGs, improving horizontal coordination and coherence of policies across sectors and also provide for regular engagement with other stakeholders outside of Government such as civil society organisations or local authorities.

To this end, a project named "Implementation and mainstreaming of the SDGs in the national policy framework in Cyprus" was launched in December 2020, through EC DG Reform support. The project, expected to be completed in Q3 2022, is being implemented with the lead of the United Nations Institute for Training and Research (UNITAR) and it is expected to support the initiatives of national authorities to design their reforms according to their priorities, also taking into account initial conditions and expected socioeconomic impacts. More specifically, the project

is expected to draw specific recommendations on how to reflect key environmental and social issues in the development of the country’s growth strategy, and accordingly inform sectoral growth strategies, as well as horizontal reforms.

Through the RRP’s holistic approach and support of sustainable development in all its dimensions - economic, social and environmental - the implementation of the measures under the RRP is expected to contribute to the improvement of our country’s performance in terms of the United Nations 2030 SDGs. The contribution of the RRP to the 17 SDGs, may be summarised with the following charts.

The first chart shows the importance of SDGs addressed by the RRP based on the number of individual measures addressing one or more SDGs and the second chart shows the importance of SDGs addressed by the RRP based on the budget allocated to individual measures addressing one or more SDGs:



Based on the analysis performed, the RRP seems to most significantly contribute to the following SDGs:

- *Goal 8 - Decent Work & Economic Growth*: 22,2% (30) of the measures included in the RRP and 23,2% (€287,0 mln) of the RRP budget contribute positively towards this SDG;
- *Goal 9 - Industry, Innovation & Infrastructure*: 39,3% (53) of the measures included in the RRP and 31% (€383,2 mln) of the RRP budget contribute positively towards this SDG;
- *Goal 11-Sustainable Cities & Communities*: 22,2% (30) of the measures included in the RRP and 29,3% (€362,0 mln) of the RRP budget contribute positively towards this SDG;
- *Goal 13 - Climate Action*: 21,5% (29) of the measures included in the RRP and 36,8% (€455,0 mln) of the RRP budget contribute positively towards this SDG;
- *Goal 16 - Peace Justice & Strong Institutions*: 24,4% (33) of the measures included in the RRP and 6,6% (€81,9 mln) of the RRP budget contribute positively towards this SDG.

4. Gender equality and equal opportunities for all

Cyprus has reinforced its legal and organisational mechanisms towards gender equality and equal opportunities for all, by developing and adding suitable and stronger ones to tackle the rising challenges, and further promote equality, and gender mainstreaming.

Gender equality is dealt as a horizontal policy, following the EU approach. Policy and legislative measures on gender equality are in place, reviewed, further expanded, and consolidated in the Gender Equality National Strategic Action Plan, addressing specific issues, and incorporating gender mainstreaming. Cyprus has ratified international human rights conventions including the Council of Europe Convention on Preventing and Combating Violence against Women and Domestic Violence (the Istanbul Convention). The Ministry of Justice and Public Order (MoJPO) is proceeding to fully adopt all the provisions of the Convention. To this effect, a bill is under preparation which will provide for a holistic approach to treating violence against women and domestic violence.

The MoJPO is the competent authority for the coordination, promotion and resolution of issues concerning women, aiming at their equal participation in all aspects of life and the modernisation of the Family Law. Under the Ministry's jurisdiction there operates the Gender Equality Unit which is the Government Service responsible for the design, coordination, and implementation of government policy on gender equality issues, evaluation of co-financed programmes/projects, as well as monitoring international developments in this area.

A key body in shaping and promoting the gender equality policy is the National Mechanism for Women's Rights (NMWR) established by decision of the Council of Ministers (2014), chaired by the Commissioner for Gender Equality. The Committees of the NMWR carry out actions and events aiming to raise awareness and inform civil society about issues on violence and abuse, trafficking women, abolition of traditional stereotypes, empowerment of women, driving women to join the labour market, bi-communal cooperation, European issues, as well other issues on equality and women's engagement and participation in the country's political, social, and economic setting and development.

The President of the Republic appointed the Commissioner of Gender Equality (March 2014). Particularly promising is also the establishment of the Gender Equality Committee in the Ministry of Education, Culture, Sports and Youth and the establishment of various interdepartmental committees on equality issues. It is noted that the local authorities are involved in the National Strategic Planning on Gender Equality through the implementation of programmes for the provision of care infrastructure for children and other dependents that promote equality at local level.

The Gender Equality Index (GEI) as defined by the European Institute for Gender Equality (EIGE) measures the complex concept of gender equality based on the EU policy framework and assists in the monitoring progress of gender equality across the EU over time. Considering the data of the latest GEI (2020), Cyprus stands at 56,9 out of 100 points compared to the EU28, which is estimated at 67,9. In 2010 the Cyprus Gender Equality Index stood at 49,0 compared to the EU of 63,8, a fact indicating the progress achieved. EIGE identifies improvements needed to narrow the gap of the current challenges.

Since 2010, Cyprus has improved in all domains of the Index showing considerable improvements in the domains of power (increased by 14,4 points) and time (5,4); in the domain of health, and money scores among the highest in the EU (respectively 88,0 and 81,7 compared to the EU 88,0 and 80,6). The least progress is recorded in the domains of work (increased by 0,3 points reaching 70,8 against the EU 72,2), knowledge (increased by 0,7 points reaching 56,2 against the EU 63,6) and money (increasing by 1,0 point reaching 81,7 against the EU 80,6). Gender inequalities are most pronounced in the domain of power scoring 29,8 points against all other EU Members of 53,5 points (Cyprus ranking 24th position in the EU). In general Cyprus GEI follows the same upward trend the EU follows but at a lower level of points.

Despite the improvement achieved so far, still there exist national challenges which need to be tackled. Specifically, the following challenges are identified in the National Action Plan for the Equality between Women and Men (2019-2023), few of which are also emphasised in the latest

GEI, which tracks gender inequality in Cyprus and several of them are identified and addressed in the RRP:

- Gender-based violence;
- Imbalanced participation in favour of men in decision making;
- Modernisation and improvement of the legislative framework;
- Gap in paid work;
- Women in vulnerable groups lack of empowerment;
- Empowerment of professional women;
- Enhancement of women entrepreneurship;
- Reconciliation of professional and family obligations;
- Uneven work-life balance/uneven distribution of time spent on care activities and unpaid work;
- Improvement of parental leave policies;
- Elimination of stereotypes and social prejudices;
- Education and training of women in the Information and Communication Technologies.

Women in Cyprus typically shoulder most of the household labour, which has a significant impact on unpaid home care and work-life balance since women spent, on average, 62 hours per week caring for children compared to 36 hours for men (according to the 2021 report on Gender Equality in the EU). On top of this, the COVID-19 pandemic inevitably seems to have disproportionately impacted women both economically and socially. The Cyprus RRP aims to promote and implement reforms and investments that will mitigate the economic and social impact of the COVID-19 crisis ensuring that no person is left behind by bridging gender equality gaps and safeguarding equal opportunities for all. It is worth noting that the plan will also positively contribute to the attainment of the targets set by the UN SDG 5 on gender equality.

To narrow the gap on improve across the challenges recognised today, it is necessary to improve on existing and introduce new legislative measures and organisational mechanisms, create additional shelters for violence victims, raise public awareness, improve research and conduct studies, train professionals in related areas, establish a code of ethics, increase the involvement of social partners in gender equality matters and enhance female entrepreneurship, etc. Many of the proposed reforms and investments in the RRP are geared towards this direction. It is noted that consultations among stakeholders - the National Mechanism for Women's Rights and the National authorities- took place to design measures that are included in the RRP and relate to gender equality, meeting the European Pillar of Social Rights and the Social Scoreboard.

Financial schemes promoting women entrepreneurship, education, and training programmes in the ITC for women, special structures for family violence victims, new care centres for children to help young parents especially young mothers to join or re-enter the labour market are provided in the RRP to be established. Financial and other measures are in place and extended in the RRP to help local authorities enhance their capacity to improve existing or set up and run care centres for children for the same reason. Understanding the different needs of sexes, the health system is reorganised and equipped with appropriate human and material resources to handle present and future health care requirements.

Foreseen sustainable urban mobility plans envisage positive impact on the dimension of equality. Measures that improve urban mobility infrastructures make everyday life easier to both women and men, in a more pronounced manner to women. Public transport improvements induce more benefits to women, urban planning impacts safety, income, and quality of life for all, and proves to be valuable to lower income groups.

Cyprus' objective for sustainable growth is underpinned on social cohesion. Specifically, the economy should provide equal opportunities to all and the growth should be inclusive and shared between all citizens. Cyprus performs strongly in many of these areas. The introduction of a guaranteed minimum income (GMI) in 2014 has helped to raise and support real household disposable incomes and reduce income inequality. It is noted that in 2019, 22,3% of the total population was at risk of poverty or social exclusion, specifically 21,2% of men and 23,3% of women.

Equal opportunities for all is a high priority for Cyprus and can be summarised in two main objectives; namely, the elimination of legislative discrimination in all areas of law, and the consolidation of the principle of equal opportunities and non-discrimination in practice, which presupposes, inter alia, a change of mentality, the promotion of specific programs that support vulnerable group, and the integration of the principle of equal opportunities and non-discrimination into all programs and policies.

The national laws and specifically the legislation which deals with non-discrimination are fully harmonised with the European Union Directives which provide against discrimination based on racial and ethnic origin, religion or belief, disability, age or sexual orientation. The Ministry of Labour, Welfare and Social Insurance as an advisory authority evaluates the proposed measures according to four (4) legislations; namely, the Persons with Disabilities Law, the Equal Treatment in Employment and Occupation Law, the Fight against Racial and Certain Discrimination (Commissioner) Law and the Equal Treatment (Racial or Origin Orientation) Law.

Cyprus Law No. 58(I)/2004, The Equal Treatment in Employment and Occupation Law of 2004 is fully harmonised with the Directives 2000/78/EC and 2000/43/EC. This Law provides a general framework for combating discrimination on the grounds of racial and ethnic origin, religion or belief, age or sexual orientation as regards employment and occupation, with a view to putting into effect the principle of equal treatment. Section 9 of the above Law provides for positive actions. It refers that a favourable treatment on the grounds of, inter alia, sexual orientation, is not considered as discrimination when the aim is to prevent or compensate for disadvantages linked to, inter alia, sexual orientation. Moreover, the above Law exceeds the minimum required by the Directive 2000/78 and covers and practically measures for protection implementing provisions which are favourable regarding the equal treatment (Section 13). Specifically, from the 1/5/2004 when the said law was entered into force, the Commissioner for Administration and Protection of the Human Rights operates and as an Authority of equal treatment in employment and occupation and as an Authority of combating racism with powers not only in the public but also in the private sectors.

The promotion of equal opportunities, non-discrimination and accessibility will be ensured through the involvement of the competent bodies during the implementation of the RRP that is in line and compatible with the European Pillar of Social Rights Action Plan. In particular, the measures taken to ensure compliance with the principles of equal opportunities and non-discrimination, through the implementation of the RRP are:

- a. Active participation in public consultation processes of competent public bodies;
- b. Representation of public authorities responsible for equal opportunities issues;
- c. Use of specialised criteria in the process of selection and evaluation of operations, where this is possible, and depending on the physical object of the measure, ensuring the accessibility of persons with disabilities;
- d. Monitoring on the measures taken in relation to the provision of equal opportunities, their effectiveness and the corrective measures required to ensure the principle of non-discrimination.

The government mechanism fully employs and implements in all aspects the principle of equal opportunities for all, but still there is a gap in the society at large. To this effect, the promotion of

equal opportunities is a horizontal principle that governs the whole of the RRP, and legislative measures are incorporated in the RRP focusing to further eliminate gender gaps, stereotypes, and social prejudices in the society. To speed up the process of elimination and narrow the gap, consultations among the various stakeholders take place.

Social exclusion is another major issue that the RRP tackles. Financial and administrative measures are provided in the RRP catering for different cases of deprived persons -women and men- who suffer social exclusion to improve their living conditions. For example, grants are available to low-income families/persons, to install photovoltaic equipment to enjoy thermal comfort at low cost. Within the same reasoning, grants to install photovoltaic equipment are provided to NGO's for the elderly and other deprived persons.

Gender equality of treatment and opportunities must be ensured and fostered in all areas, including participation in the labour market, terms and conditions of employment and career progression. Thus, proposed measures that promote reskilling and upskilling, securing better education and life-long training as well as affordable early childcare services, provide the support and create the conditions necessary to allow for better accessibility to a wider spectrum of employment opportunities. This in turn supports the reduction of existing gender gaps in employment, pay and representation in decision-making positions.

Investment in robust care infrastructure is specifically important to ensure gender equality and the economic empowerment of women, build resilient societies, combat precarious conditions in a female-dominated sector, prevent poverty and social exclusion. Investments in childcare services and reforms related to the work-life balance of employees are both important in supporting women's participation in paid work as well as their professional development and thus, addressing gender gaps in the labour market. It also creates potential for further job creation for both men and women. By giving employees the opportunity to choose flexible working arrangements (*Component 5.2 Labour Market Social protection, Social welfare and Inclusion*), establishing multifunctional centres and child centres (*Component 5.2*), child centres in municipalities (*Component 5.2*) and establishment of home structures for children, adolescent with conduct disorders and persons with disabilities and long-term care structures for the elderly (*Component 5.2*) will enable both men and women to thrive personally and professionally and at the same time promote the idea that both parents should feel responsible and entitled when it comes to family care.

Several components within the plan outline training programmes (e.g. digital transformation of school units with the aim of enhancing digital skills and skills related to STEM education and skilling, reskilling and upskilling in *Component 5.1 Educational system modernisation, upskilling and retraining*), which aim to improve the gender balance in traditionally male-dominated or female-dominated professions and address gender stereotypes.

Everyone has the right to **equal treatment and opportunities** in terms of employment, social protection, education, and access to goods and services available to the public.

The implementation of the envisaged reforms and investments comprises of several measures that promote equal opportunities for all such as, the transparency of recruitment and advancement processes and gender impact assessment of new policies and adoption of family-friendly policies (*e.g. in the context of Components 3.4 Modernizing public and local authorities, making justice more efficient and fighting corruption and 5.2 Labour market, social protection, social welfare and inclusion*).

Reforms and investments under *Component 3.4* and *Component 5.2* aim to enhance productivity, effectiveness and efficiency (e.g. by accelerating the digital transformation, improving the recruitment and promotion procedures and reforming of the performance appraisal system), increase participation of women in paid work and representation in decision-making positions, as well as reduce gender segregation in certain occupations and improve the working conditions for

employees with ability limitations (e.g. by promoting flexible working arrangements and organizing trainings across several sectors).

The plan ensures respect for the rights of people with disabilities in conformity with the UN Convention on the Rights of Persons with Disabilities and the rights of other under-represented, disadvantaged and marginalised populations. The plan also ensures disability (and otherwise) inclusive reforms in education, the labour market and health sector, accessibility of buildings, services and websites as well as transition from institutional to community-based services. Examples of reforms and investments promoting respect for the rights and **equal opportunities of under-represented groups** are the enhancement of the hospitals to offer a complete treatment of rare cases to all people (*Component 1.1 Resilient and Effective Health System, Enhanced Civil Protection*), the accessibility of people with disabilities in urban centres (*Component 2.2 Sustainable transport*), ensuring that all households have access to high speed internet networks (*Component 4.1 Upgrade infrastructure for connectivity*), promoting renewables and individual energy efficiency measures in dwellings and tackling energy poverty in households with disabled people (*Component 2.1 Climate neutrality, Energy efficiency and renewable energy penetration*) as well as providing employment opportunities to people living in rural and remote areas and upskilling the existing farming Community and professionalise future labour force by investing in human capital (*Component 3.1 New Growth Model and diversification of the economy*). In addition, by providing grants to community and private kindergartens in order to cover the tuition fees at private pre-primary schools (*Component 5.2 Labour market, social protection, social welfare and inclusion*), low income families will have access to private education for their children and at the same time by extending the free compulsory pre-primary education from the age of four (*Component 5.2*) can support women to return to work earlier. Finally, the establishment of incentive schemes for the employment of young people and improving the effectiveness of the Department of Labour and Public Employment Services and reinforcing support for young people (*Component 5.2*) provides youth with a much-needed opportunity to gain professional experience and on-the-job training, which then improves their future employment opportunities and career development.

These measures are based on solidarity, integration, social justice and a fair distribution of wealth with the aim of creating quality employment and sustainable growth, ensuring equality of, and access to, opportunities and social protection, protecting vulnerable groups and improving the living standards of all citizens. These reforms and investments contribute also to fighting poverty and tackling unemployment to support the rebound of the Cyprus economy while leaving none behind. Those reforms and investments will lead to the creation of high-quality and stable jobs, the inclusion and integration of disadvantaged groups, and enable the strengthening of social dialogue, infrastructure and services, as well as of social protection and welfare systems.

The reforms and investments envisaged in the plan should be coherent with, and effectively contribute to implementing the 2nd and 3rd principles of the European Pillar of Social Rights in relation to the dimensions of equal opportunities regardless of gender, racial or ethnic origin, religion or belief, disability, age or sexual orientation that will ensure the mainstreaming of those objectives across relevant policies. In Cyprus, the projects co-financed by the EU must comply with national and EU legislation on public procurement, state aid, protection and improvement of the environment and sustainable development, equality between men and women, and non-discrimination. Compliance, as well as the commitment to comply with national and EU legislation and policies, is a prerequisite for the projects accession decision, as well as during their implementation.

Specifically, the opinion of the MoJPO responsible for the promotion of equality between men and women and the opinion of the Ministry of Labour, Welfare and Social Insurance (MWLSI) responsible for the implementation of non-discrimination policy is required for the compatibility of the co-financed projects with the relevant EU and national legislation and EU policies. All

reforms and investments proposed under the RRP have been submitted to the aforementioned line ministries for their review and evaluation.

Following evaluation by the MoJPO, the Ministry proceeded with the issuance of the “Certificate of Compatibility related to the RRP” confirming compliance of the reforms and investments with the relevant national and EU legislations and policies concerning equality of gender and that there are no ingredients of the measures that challenge this policy. In summary:

- For Policy Axis 1, it concludes that the set of measures that make up the Axis in consideration, promote gender mainstreaming, and their expected impact is evaluated positive, with social and economic spill-over effects in the national setting contributing towards empowerment of both men and women, mitigating gender stereotypes and improving their economic status, participation in the society/socialisation and in general improving their well-being, on a long lasting horizon.
- For Policy Axis 2, it concludes that the set of measures are expected to positively benefit vulnerable citizens to live at home in comfort at affordable energy cost, improve urban mobility infrastructures make everyday life easier to both, benefit women through public transport improvement, impact safety, income, and quality of life to all through urban planning, and benefit lower income groups.
- For Policy Axis 3, it concludes that the set of measures resolve imbalances that risk long-term economic growth, create a prosperous and inclusive society, and align economic growth with environmental and social sustainability responding to needs and expectations of the society at large. The sustainability through the proposed measures is expected to boost sectoral employability strengthening the social and economic status of both women and men, whereas in some instances are more notably to women. Although the measures contain rich potential, much of their content does not conclusively convey hidden payoffs of gender equality. It is therefore suggested to review this issue. In particular, integrating the gender dimension into research and innovation content is a requirement. Also, gender equality plans will also gradually become part of the eligibility criteria for public bodies.
- For Policy Axis 4, it concludes that the set of measures tackle gender divide thus they facilitate gender main streaming in the Cyprus society. As the measures are set to function, the plan as an entity is an ambitious one, expected to bring about positive impacts on gender equality: empowering women and men, alleviating stereotypes, narrowing gender, age, and income, digital divide, improving working conditions of both sexes and other related impacts.
- For Policy Axis 5, it concludes that the set of measures yield positive impact on women and men. It provides skills for employment to enter the labour market to improve employability to both women and men, but more likely to women, enhances early school leavers and other vulnerable groups to acquire competencies and skills to enable them enjoy market potentials. The proposed actions qualify NEETs single mothers, short and long-term unemployed low-income family members, groups at risk of poverty and social exclusion to enter or re-enter the labour market. Thus, the Plan Axis, among others, contributes to empowering both women and men, improving their standard of living and well-being in general. Furthermore, it mitigates stereotypes and impacts adversely gender violence.

Following evaluation by the MWLSI, the Ministry concluded that all reforms and investments included in the RRP seem to be neutral in the context of the implementation of the relevant and applicable legislations for disabled persons, equal treatment in employment, combating discrimination and equal treatment. Additionally, due to the technical nature of the RRP, the reforms and investments included within do not include the national policy and EU legislation concerning non-discrimination. Regarding the investments related to the construction sector, the necessity to consider their compatibility with the principles of non-discrimination was highlighted. Specifically, it was noted that these investments require certification of compliance with the

standards of accessibility for disabled persons by the responsible Project Promoter. In any case, construction projects should be evaluated by the Department of Public Works of the Ministry of Transport, Communications and Works. It is also noted that measures related to legislative reforms under Policy Axis 3, have been perceived as neutral since they did not seem to have human-centered nature but rather a technical nature. It is worth noting that in the context of the Structure Funds, never before has it been requested by the MWLSI to perform an evaluation on legislative proposals as there are other controlling mechanisms around this. Finally, it was highlighted that the Managing Authority and all other involved stakeholders will need to take appropriate measures to prevent any discrimination on the grounds of sex, race or ethnic origin, religion or belief, disability, age or sexual orientation, during the implementation of the measures of the RRP.

Finally, it is noted that no reform or investment included in the RRP directly and specifically contributes towards **women and men having the right to equal pay for work of equal value**; however, it is noted the relevant law “*The Equal Remuneration Between Men and Women for the Same Work or for Work of Equal Value Law of 2002 (N. 177(I)/2002)*” has been in effect since 2002. As of December 2021, according to the Labour Minister, “In Cyprus, a working woman would have to work until February 7 to make the same amount a man makes in one year (until December 31)”.

In conclusion, the proposed plan through the implementation of the envisaged reforms and investments will be instrumental in addressing gender equality and promoting equal opportunities for all in the Cyprus economy and society.

PART 2

DESCRIPTION OF REFORMS AND INVESTMENTS

PART 2: DESCRIPTION OF REFORMS AND INVESTMENTS

1. COMPONENT 1.1 Resilient and Effective Health System, Enhanced Civil Protection

1.1 Description of the component

Policy area/domain: Health

The strategic goals of the Ministry of Health are related to the implementation of sustainable reforms, within a healthcare system that focuses on prevention, social provision and continuous upgrading of the provided services based on professionalism and respect, equally to all citizens. A key characteristic of the recently implemented National Health System (NHS) is the enhanced access of all citizens to healthcare services.

The COVID-19 pandemic demonstrated the need to further improve and modernise the health care system and complete the implementation of the sector reform. In this framework, the Republic of Cyprus has proceeded with the adoption and implementation of a "National Reform Program". This program is of a fiscal nature with the aim of safeguarding the public health system and ensuring financial support for businesses and employees. This includes measures aimed at strengthening the resilience of the health system and the ability of hospitals to deal with any future health crises and to establish the necessary infrastructure, equipment and procedures. The measures also concern the employment of additional medical, nursing and other support staff but also the application of appropriate human resource management methodologies in public hospitals.

Objectives:

The main objective is the promotion of those reforms and investments in the healthcare sector that will increase the efficiency, accessibility and overall resilience of the NHS. In addition, efforts are towards the assurance of adequate supplies and infrastructure, improving the capacity of hospital units and the working conditions of health staff.

In the framework of the planned reforms and investments in healthcare, a series of actions will be promoted through the RRP, aiming at:

- The upgrading of the quality of provided healthcare services including the establishment of a National Centre on Clinical Documentation, the accreditation of provided healthcare services and the upgrading of medical technology and medical devices in hospitals
- The development of eHealth solutions for easier access to patient summaries, ePrescriptions and eDispensing,
- The Electronic surveillance of Nosocomial Antibiotic Consumption and Healthcare - Associated Infections, as an important measure for health protection and promotion,
- The development of innovative public health ICT system in the general framework of surveillance and control of communicable diseases and preparedness for any pandemics,
- The investment in building infrastructures and equipment that will both serve to the benefit of the patients and the operability of the hospitals and public health authorities. This includes the refurbishment and construction of building premises for the provision of adequate quality services to all patients throughout the country, the construction of Catastrophic Communicable Diseases Unit within hospitals, the construction of a COVID-19 Unit within a hospital etc. These investments will

simultaneously create the required environment that will enable the improvement of the working conditions of the health workers and enhance their ability to provide better services to patients enabling better health promotion and protection. All projects within this area have taken into consideration the efficiency of energy and the accessibility for people with disabilities. The green investment is very high on the agenda on all investments.

Further to the reforms and investments regarding the improvement and modernisation of the health care sector, this component includes also a measure in relation to the overall enhancement of civil protection in terms of increased security measures to improve public safety, preparedness and resilience to imminent or developing disasters and the overall capability to handle emergencies.

Reforms:

- Reform 1: National Centre for Clinical Evidence and Quality Improvement.
- Reform 2: Design of an Electronic platform for the surveillance of Nosocomial Antibiotic Consumption and Healthcare – Associated Infections.
- Reform 3: Gradually shifting the healthcare provision and reimbursement framework towards value-based models.

Investments:

- Investment 1: New facilities for the Cyprus Blood Establishment and procurement of the latest technology attendant equipment.
- Investment 2: Cyprus Innovative Public Health ICT System (CIPHIS).
- Investment 3: Purchase/replacement of medical equipment in hospitals.
- Investment 4: Accreditation of public and private hospitals.
- Investment 5: Enhancement, modernisation and upgrade of Cyprus State Hospitals.
- Investment 6: Deployment of generic cross border ehealth services in Cyprus.
- Investment 7: Public warning system for supporting emergency operations through SMS.

Flagship initiatives: Modernise, Renovate

Total estimated budget to be funded through the RRP: €74,1 mln

1.2 Main challenges and objectives

Main challenges

The NHS has been implemented gradually in line with past health sector related CSRs. Thus, on 01/06/2019 Personal doctors, Outpatient Specialists, Pharmacies, Medical Devices and Supplies and Labs were incorporated into the NHS. On 01/06/2020 Inpatient Health Care Services were incorporated, followed by the Accident & Emergency Departments on 01/09/2020 and Preventive Dental Care, Nurses, midwives & allied health services and Allied health professionals on 01/12/2020. Palliative care and Rehabilitation care are the only services not incorporated yet, and these are expected to join the system during the second half of 2021. NHS enables the freedom of choice in healthcare treatment, universal coverage and equal access to healthcare services for all beneficiaries. It covers all medical care needs of beneficiaries including chronic, rare and serious conditions and the right to health within the NHS is independent from the payment of contributions. Beneficiaries without an income (unemployed, children, students, soldiers and others) have equal access to healthcare services. Specifically, NHS covers all citizens

who are permanent residents in the areas controlled by the Republic of Cyprus and the members of their families in accordance with the provisions of the national legislation.

In addition to that, the autonomation of Public Hospitals has been under way based on the Law for the Establishment of State Health Services Organisation (SHSO), as a structural reform for the proper functioning of the NHS.

In this framework, SHSO as a Legal Entity of Public Interest has undertaken the responsibility for the operation, management, control, surveillance and development of public hospitals and primary care centres. SHSO is currently preparing a detailed business plan with the support of external advisors which will define the focus activity areas for the next five years, aiming at financial sustainability, with additional actions already implemented such as the development of its organisational structure, the safeguarding of Public Health (e.g., COVID 19), the provision of Health services in remote areas and Services of General Economic Interest.

Primary care has also been identified as a basic component of healthcare sector reform and a main component for the smooth implementation of the NHS. Thus, upon the design of the reform, a detailed restructuring plan has been prepared, which entailed clustering of small healthcare facilities, extending opening hours, standardizing procedures and improving synergies and coordination with ambulance services and community care centres within the framework of the State Health Services Organisation. Overall, efforts are ongoing in the area of primary care with the adoption and implementation of several measures to enhance the ability of primary healthcare centres to support the patient and help the hospitals under the SHSO organisation to be upgraded.

The Strategy of the Ministry of Health recognises the structural challenges in the healthcare sector and includes among its strategic objectives the restructuring of the Health System of the Country. Challenges such as the until recently absence of a NHS, the outdated mode of operation of public hospitals, the heavy bureaucratic hierarchy among hospitals' staff with limited opportunities for professional growth and recognition of performance and more generally the opportunities to modernise staff management, the absence until recently of an ehealth Competent Authority etc. have been well recognised. Simultaneously, the outdated operation of primary healthcare centres has been recognised as well as the need for restructuring in terms of its organisational structure, working hours, processes, accessibility and efficiency.

The need for capital investments is significant, arising from a combination of the expected increased demand and the need for the upgrading of premises and medical equipment. For example, there is a need for investment in haemodialysis units across public hospitals, which reflects the increase in patients with nephrological problems that need urgent support. The current solution of providing this care at the Nicosia General Hospital is not sustainable and investment in the other hospitals' units is urgently needed. There is also a need for investment in the invasive radiology unit and equipment, reflecting the need to invest in modern methods of treatment and digital health. The equipment currently used are not obsolete but will be redeployed in the angiography unit where they will be used efficiently. There is also a need for significant investment in the Makarios Hospital reflecting the need for a comprehensive suite of medical services for children which currently does not exist. The building is also more than 40 years old and needs significant improvements. The same applies to the need for investments in Limassol and Paphos hospitals. In the area of public health, the COVID 19 pandemic revealed some structural failures as to the coordination of surveillance actions, long term planning and monitoring techniques. Communicable diseases are of high-risk impact for the healthcare systems and their sustainability. The situation is riskier in the case of cross border health threats and pandemics.

Another major public health issue faced in Cyprus as in other EU Countries is the high rate of antibiotic consumption, antimicrobial resistance and Healthcare - Associated Infections. Tackling

these problems is also a priority. In a similar perspective, the adequacy of blood components and their quality have been recognised as areas for further improvement within the health system.

All efforts towards the resilience of the system ought to be compatible with the digital framework of the Country and the digital solutions available in the healthcare sector. Compatibility of ehealth solutions and interoperability among the existing systems is a major challenge in the area of health.

Objectives

From a general perspective, all proposed reforms and investments under this component aim at the strengthening of the healthcare system and the availability of healthcare solutions to the patients, while respecting their rights for equal and easily accessible treatment. It is expected that through the RRP actions, any issues of health and gender inequalities will be addressed, since at the basis of the proposed reforms and investments is the equal treatment of all patients and their rights irrespectively of status, gender and socioeconomic position. In this respect, the policy development part is performed based on the recommendations of the Commission through CSRs, the Social Protection Committee work, the European Charter of Social Rights and other EU and International initiatives in the area of health and social systems.

In line with the past CSRs in the area of health, Cyprus has proceeded with the implementation of the National Healthcare System in two phases, the first one commencing in the mid-2019 and the 2nd one currently introduced and will be gradually completed within 2021. The aim of the Component is to introduce such reforms and investments that will support the newly introduced system and enhance its resilience, based on the principle of equal and easy access of patients to quality healthcare service.

Reforms such as the establishment of the National Centre for Clinical Evidence and Quality Improvement, the reform relating to gradual shifting of the healthcare provision and of the reimbursement framework towards value-based models, together with the upgrading of medical technology and medical devices in hospitals, aim to further strengthen the improvement of the quality of the provided services within the healthcare system.

The financing of the NHS through structural funds is not the ending point in terms of improving the ehealth infrastructure in Cyprus. The Ministry of Health identifies within its Strategy for 2021 – 2023 a series of ehealth projects that have already been implemented, such as the partial operation of OPSY (Integrated Health Information System) in Nicosia General Hospital, Ammochostos Hospital and a number of Primary Healthcare Centres of SHSO, the operation of PACS system for diagnostic examinations (PACS), as well as data centres for other sub systems. In parallel, various other ehealth projects are being promoted such as the expansion of OPSY in all hospitals and primary healthcare centres, digitalisation of medical records, the eHealth National Contact Point (ΚΑΙ ΕΕSSI), the electronic system for Population Screening programmes and others. In this context, legislation has been adopted for the establishment of the National eHealth Competent Authority aiming at the structured and coordinated promotion of ehealth projects in Cyprus.

The digitalisation of cross border healthcare and surveillance of infectious diseases aim to have a major effect not only in the digital transition but also in the strengthening of public health policies. Digital solutions in health can enable a patient-centered environment with better accessibility and equal rights for all citizens, further enriching social cohesion.

Investment in healthcare infrastructure and the provision of quality healthcare services are a priority for the country in the area of health. Improved building infrastructure and medical technology in hospitals as well as accreditation of clinical and administrative processes within hospitals, can mitigate the social impact of the crisis by providing better accessibility to quality services for all patients. They could also help make Cyprus an attractive medical destination.

The pandemic has highlighted the need for an agile and flexible workforce for mobilizing resources over a short period of time. In order to do this, investment in education programmes is required for significant reskilling to enable health workers to act effectively in periods of immediate, urgent needs. Further, the investment in modern equipment (e.g. Invasive radiology equipment) requires significant upskilling of the workforce. All these measures are included in the budget of SHSO and the respective programs are already in progress.

Furthermore, the investment in Public Health ICT aims at supporting and strengthening the public health capacity and its monitoring capabilities using evidence-based information extracted from sensory data.

CSRs addressed

Reforms / Investments	Year / CSR Numbers Recitals	Justification
Reform 1: National Centre for Clinical Evidence and Quality Improvement	CSR 1 2020, Recital 17 CSR 3 2019, Recital 12	<p>The reform will lead to the adaptation of international guidelines and clinical protocols for different levels of health care and the development and adaptation of the Diagnosis Related Groups System that will be valid within the National Health System. This will have, as an effect, the improvement of the efficiency of healthcare providers, including primary healthcare, as well as the safeguarding and sustainability of the system.</p> <p>It will also support the digital transition through the development of the necessary platform in order to enable healthcare staff access to clinical standards and protocols.</p>
Reform 2: Design of an electronic platform for the surveillance of Nosocomial Antibiotic Consumption and Healthcare Associated Infections	CSR 1 2020, Recital 17 CSR 3 2019, Recital 12	The reform will support the digital transition of the healthcare sector and strengthen the health system's effectiveness and resilience.
Reform 3: Gradually shifting the healthcare provision and reimbursement framework towards value-based models	CSR 1 2020, Recital 17 CSR 3 2019, Recital 12	The reform will enhance the efficiency and sustainability of the healthcare system and will improve the health of the wider population by reducing hospitalisation and over-treatment.

<p>Investment 1: New facilities for the Cyprus Blood Establishment and procurement of the latest technology attendant equipment</p>	<p>CSR 1 2020, Recital 17 CSR 3 2019, Recital 12</p>	<p>The construction of new facilities for the Cyprus Blood Establishment and the procurement of the latest technology attendant equipment is the key point towards strengthening resilience and is critical for meeting the significant increase in the demand of blood components due to the elevated numbers of surgical operations performed.</p>
<p>Investment 2: Cyprus Innovative Public Health ICT System (CIPHIS)</p>	<p>CSR 1 2020, Recital 17 CSR 3 2019, Recital 12</p>	<p>The project will support the digital transition of the healthcare sector and strengthen the health system's effectiveness and resilience.</p>
<p>Investment 3: Purchase/replacement of medical equipment in hospitals</p>	<p>CSR 1 2020, Recital 17</p>	<p>There is a need to upgrade medical equipment of public and private hospitals to improve quality within the General Health System in Cyprus.</p> <p>Investments in capital expenditure are critical for the high quality and continuous improvement of healthcare services in the Republic of Cyprus.</p>
<p>Investment 4: Accreditation of public and private hospitals</p>	<p>CSR 1 2020, Recital 17 CSR 3 2019, Recital 12</p>	<p>There is a need for improvement and standardisation of the quality of healthcare provision by all sectors. Cyprus also needs to harmonise its healthcare provision to be in line with European Standards.</p> <p>Through the accreditation process of public and private hospitals, the quality of healthcare services will be improved.</p>

<p>Construction and/or extension of Haemodialysis Unit across all Cyprus State hospitals</p> <p>Extension of Invasive Radiology Unit including medical equipment (e.g. Angiography unit) - Nicosia General Hospital</p> <p>Enhancement of the Makarios Hospital for Children to offer a complete treatment of cases to children</p> <p>Enhancement of the Paphos and Limassol General Hospitals</p>		<p>there is great room for upgrade and improvement.</p> <p>Strengthening the resilience and capacity of the Radiology Unit to ensure quality and quantity of treatment, is extremely important.</p> <p>The investment will contribute towards this direction.</p> <p>The crisis demonstrates the need for changes and improvements in the treatment of children pointing to further specialisation and introduction of modern health technologies.</p> <p>The investment will contribute towards this direction.</p> <p>This pandemic has highlighted the need of having well-structured and well-equipped hospitals across the Republic of Cyprus that can support emergency situations.</p> <p>The investments are critical to manage the increased need for better quality of treatment at the Paphos and Limassol districts.</p> <p>The COVID-19 crisis has a major negative impact in the efficiency and effectiveness of the operations of all Cyprus hospitals. Even though the overall handling of the COVID19 crisis was adequate and satisfactory, there have been periods that dangerous disruptions were observed.</p> <p>The crisis demonstrates the need for changes and improvements in the health system to be able to absorb all these cases under one hospital unit.</p> <p>The investment is extremely important for the effective handling of these cases.</p> <p>The crisis demonstrates the need for changes and improvements in the handling of crises caused by unexpected viruses. The</p>
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1.3 Description of the reforms and investments of the component

Reforms

- **Reform 1: National Centre for Clinical Evidence and Quality Improvement**

Challenges

The national health systems both in Europe and internationally, which are characterised by efficiency and the provision of high-quality services are based on the existence of best-practice quality standards, well-communicated guidelines and evidence-based Medicine (EBM). EBM covers the full range of medical services and answers important clinical questions regarding the physician's decision-making process regarding diagnosis and treatment (including the use of interventional methods). The main goal of EBM is to disseminate and apply the valid findings of clinical research in the context of daily clinical practice, in order to optimise clinical care taking into consideration country specific culture, country healthcare system design, patients' ideas, concerns and expectations.

The existence of guidelines, clinical protocols, EBM and other tools help the physician make clinical decisions in his or her daily practice, ensure the quality, adequacy and efficiency of the services provided and strengthen the cost-effectiveness index. Without the implementation of guidelines in the framework of the national health systems, the possibility of medical errors, triggered demand and increased health expenditure, both public and private increases. Guidelines & clinical protocols, in addition to contributing to patient safety, play a critical role in both cost containment and improvement of the level of health of the population. For these reasons, the vast majority of EU national health systems are based on EBM and have a robust quality improvement framework.

Internationally, the guidelines are developed by organisations and bodies of high scientific prestige and competence, but also European medical bodies. However, these guidelines need to be adapted to the specific characteristics of the population and the health system of each country, in order to be feasible and effective. Most European countries with highly efficient health systems have set up Centres and National Clinical Evidence Centres to monitor the implementation of guidelines and protocols, barriers to their adoption, updating, training and evaluation of the effectiveness of quality improvement measures. In addition to EBM services, these Centres incorporate guidelines, clinical protocols, paper reviews, inspections and clinical audit.

In Cyprus, the recent introduction of the NHS and the consequences of the pandemic further accentuated the need for the adoption and implementation of clinical protocols, pathways, guidelines, clinical audit, inspections and peer reviews as a measure not only to maintain and increase quality but also to safeguard the sustainability of the NHS. Due to lack of expertise there is an inevitable need for the implementation of the aforementioned quality improvement tools in Cyprus new NHS. Thus, the establishment and development of such a responsible Organisation is an undoubtful need. Until today the adoption of initiatives was based on needs in each case and thus variability of care, waste and abuse of the new NHS exists.

Objectives

In regard to the above, this Reform aims to establish a National Centre for Clinical Evidence and Quality Improvements, with the following key roles:

- Development or adaptation of international clinical guidelines, protocols and clinical pathways for different clinical entities and levels of care (primary, secondary and tertiary health care) according to clinical evidence and patients' concerns and expectations. Person-centered care shall be at the centre of the development /adaptation process. Healthcare

professionals and patients shall participate from the development /adaptation process until the evaluation phase.

- Development of quality indicators to evaluate the successful implementation of clinical guidelines/pathways.
- Development and evaluation of a patient safety model, patient empowerment framework in relation to the evidence-based medicine implementation.
- Development of a monitoring & follow-up system including clinical audit, inspections and peer reviews for the evaluation of the implementation of the guidelines and protocols (i.e. whether health professionals, health units, etc. follow what is recommended and if not, what obstacles they face, informing / educating users), as well as the results of these measures (outcomes).
- Development and provision of educational programmes to healthcare professionals and patient groups on specific disease areas, online (web platform) and onsite.
- Evaluation of Cyprus health policies exploring the impact of clinical effectiveness of Cyprus healthcare services, health technology assessment practices as well as quality of life.
- Dissemination of evidence-based medicine

As a result of this reform, it is expected that there will be:

- a better understanding of clinical guidelines, pathways, protocols by healthcare professionals and patients (patient education),
- improved interaction between healthcare professionals,
- improved interaction between healthcare professionals and patients/families,
- a reduction in GPs referrals to specialists,
- a more rational use of NHS resources,
- improved quality of care,
- cost savings for the Cyprus NHS,
- enhanced patient satisfaction,
- improved patient safety,
- improved quality of life for citizens.

All efforts will be made so that hospital financial incentives will not contradict best practice protocols. This will be achieved by:

- incorporating health evaluation (i.e. cost effectiveness analysis CEA) in protocols/guidelines development/adaptation,
- involving the Payor (Health Insurance Organisation) in the process of guidelines/protocols development/adaptation, and
- involving all the stakeholders including hospitals/physicians in the aforementioned protocols/guidelines development process.

Implementation

The project Steering Committee shall be the Coordination Committee of the National Centre for Clinical Evidence and Quality Improvement that was recently appointed and shall facilitate coordination and cooperation but will also promote key stakeholders' collaboration. In addition, the Steering Committee will have a coordinating / supervisory role, in order to ensure the high quality of the services provided and to normalise the effective execution of the project.

The implementation of the reform shall be accomplished through the following steps:

- A study will be undertaken which will:
 - identify the main clinical focus areas and will develop relevant quality indicators. Appropriate indicators will be introduced in order to identify the content and the type of clinical protocols that will be developed and to measure the process of production, implementation and acceptance of clinical guidelines and protocols.
 - create the Cyprus clinical guidelines, protocols and clinical pathways for all levels of care (primary, secondary and tertiary health care).
 - design the organisational structure, functions, roles and staffing needs of the National Clinical Documentation Centre/Unit which will oversee and maintain the clinical standards. Design also the monitoring & follow-up processes of the Centre e.g. clinical audit, peer reviews, inspections.
- Roll-out of clinical guidelines, protocols and pathways: This includes the communication of clinical standards and the design and delivery of training to health professionals on the specific issues of methodology of development and implementation of clinical guidelines, clinical protocols and pathways.
- Implementation of IT system to enable successful implementation and monitoring of EBM and quality improvement tools. Moreover, an e-learning platform shall be developed and implemented to ensure healthcare staff and patients training.

Stakeholder involvement

The Steering Committee shall be the Coordination Committee of the National Centre for Clinical Evidence and Quality Improvement consisting of representatives from the MoH, National Patient Association, Cyprus Medical Association and Academia.

Impediments

The project could face risks and obstacles related to the many different project teams or delays in legislation relating to the implementation and functioning of NHS. In order to address these problems, it was decided that the Steering Committee will prepare a risk management plan. In addition, the project will be a strategic priority for the government in the context of the broad governmental decision for health reform.

Target population

Citizens and businesses will be benefited from a comprehensive patient centered evidence based, quality improvement system, which is the outcome of the project.

State Aid

Not applicable

Timeline

Q4 2024: At least 50 protocols will be prepared, audited and peer reviewed by team of experts, with key characteristics of protocols being: EBM clinical practice recommendations, implementation guide and audit plan

Q4 2025: At least 90 protocols will be prepared, audited and peer reviewed by team of experts, with key characteristics of protocols being: EBM clinical practice recommendations, implementation guide and audit plan

- **Reform 2: Design of an Electronic platform for the surveillance of Nosocomial Antibiotic Consumption and Healthcare – Associated Infections**

Challenges

Antibiotic consumption

- At the moment, antibiotic consumption data are based on data obtained from pharmaceutical company sales. It is not possible to separate community and hospital consumption and it is not certain that sales equate consumption.
- The recent implementation of the General Healthcare System will enable the collection of antibiotic consumption data in primary care as prescriptions in primary care are submitted electronically. It will not, however, allow for the collection of data regarding antibiotic consumption in hospitals.

Antimicrobial resistance

- At the moment, antimicrobial resistance data are only collected from the five largest public hospitals.
- The current system does not enable detailed processing of the collected data Healthcare-Associated Infections (HAI).
- There is no organised system for the collection and processing of HAI data from either the public or private hospitals.

Objectives

The aim is to introduce a reform in this area, in order to broaden the scope, health establishments involved and administrative arrangements for data collection and also to create a platform that will enable the MOH to:

- Collect antibiotic consumption data from secondary and tertiary care.
- Collect and process antimicrobial resistance data and give feedback to healthcare providers.
- Collect and process healthcare associated infection data and give feedback to healthcare providers.
- Plan measures to tackle the above problems and monitor their effectiveness

Implementation

The Reform is related to the implementation of the Cyprus Strategy for Tackling Antimicrobial Resistance.

Data from hospital pharmacies (nosocomial antibiotic consumption), microbiology laboratories (antimicrobial resistance), and hospitals (HAIs) will be submitted into and processed by the platform.

The aim is the participation of both the public and private hospitals. The feasibility of making hospital enrolment on the platform obligatory by law will be explored. If this proves not to be feasible, the benefits of enrolment will be explained to hospital management and infection control teams to promote voluntary enrolment.

Data will be submitted by:

- Hospital pharmacies (antibiotic consumption)
- Microbiology departments (antimicrobial resistance)
- Hospital Infection Control Committees (HAIs)

The above administrators will be able to process their own data via the platform. The data will also be processed centrally by administrators at the MOH.

The proposed project includes financing for the development of the project, the platform installation at the hospitals and the Ministry of Health as well as the training of the staff that will be using the platform (both staff entering data into the platform and staff analysing the data and producing reports).

Stakeholder involvement

There will be extensive cooperation among stakeholders, such as the private Microbiology Labs and the Microbiology Labs of the State Health Services Organisation, the Hospital Infection Control Committee, the Ministry of Health, the hospitals of the State Health Services Organisation etc.

Impediments

The main impediment to the implementation of the reform is expected to be the local availability of staff collecting and submitting the data into the platform. The establishment of a specific framework creating an obligation to submit the data will facilitate stakeholder involvement.

Target population

The objectives of the reform will affect the general population, health establishments and health professionals.

State Aid

Not applicable

Timeline

Q1 2023: Preparation of the list of health care facilities that will be providing information to the Health Insurance Organisation on antibiotic consumption and will be monitored by the Health Insurance Organisation.

Q4 2025: Electronic platform to process data from hospital pharmacies (nosocomial antibiotic consumption), microbiology laboratories (antimicrobial resistance), and hospitals (HAIs) is fully operational (Installed at all points of use and real data are being entered) and a system monitoring its effectiveness is in place.

- **Reform 3: Gradually shifting the healthcare provision and reimbursement framework towards value-based models**

Challenges

Traditionally, healthcare systems across the world had relied on volume-based reimbursement (e.g. fee for service), where payment is made on the basis of the number of services provided. This model results in a definite conflict of interest from a patient's perspective as the focus is on quantity rather than quality of service. Also, certain global health trends such as ageing population, rise of chronic conditions and rising costs of care make the volume-based reimbursement model less financially viable as time goes by.

Therefore, health care systems across the world are gradually introducing value - based care models to complement volume-based care models. In value-based models payment depends on outcomes and providers are paid based on the quality of the care they provide and their ability to reduce the cost of care e.g. The 'value' is derived from measuring health outcomes against the cost of delivering the outcomes.

The General Health System in Cyprus is currently using an age adjusted capitation model for primary care where Personal Doctors (PDs) are paid based on the number of patients on their list based on their age category) and a volume-based reimbursement model for all other services (e.g. diagnostic laboratories, outpatient specialist doctors, inpatient care etc). So far, the capitation model used for primary care has not been complemented with value-based incentives, quality KPIs and controls, hence, PDs are not fully effective in their gatekeeping role. For instance, PDs in Cyprus issue referrals to outpatient specialist doctors at a rate of 40% of their visits, whereas in other systems (where GPs have a similar gatekeeping role, the average of referrals is between 20% - 25%). Partly due to these reasons, Cyprus is facing excess healthcare costs attributed to unnecessary treatment and inefficient use of services.

It is not practical to abolish the current volume-based models at once or try to integrate value-based care too soon without the right infrastructure and collaborative ecosystem. Therefore, there has to be a gradual shift towards value-based care. Given the importance of the gatekeeping role of PDs in terms of keeping outpatient specialist volumes in check and the current issues explained above, primary care needs to be addressed first followed by the inpatient care. At later stages, value-based models and initiatives across other providers should be developed to cover the entire continuum of care and integrate care in a more direct way.

It is important to note that moving forward, value-based models are likely to require the utilisation of appropriate technology and data-driven performance such as disease management IT systems. In addition, PDs should be supported by the right training support.

The above factors, coupled with the rising patient expectations demanding better quality of services and the objective for Cyprus to offer an internationally competitive health care system that can contribute towards new economic growth through the attraction of new, long-term residents and/or medical tourists to the island, create a strong case for the introduction of value-based models.

Objectives

In regard to the above, this project aims to establish appropriate value-based models and initiatives within primary care and inpatient care with the following aims:

- improve health outcomes for the Cyprus population,
- enhance customer experience,
- avoid unnecessary treatment and associated costs,
- create a culture of collaborative working amongst doctors and settings,
- standardise outcomes and cost of care.

In **primary care the target** is to move from a 100% capitation reimbursement to introducing reimbursement based on quality indicators. In **inpatient care** the aim is the introduction of quality KPIs as the reimbursement now is volume based using a pre-agreed unit price with each hospital. More specifically, the high-level monitoring indicators of the design and development phase include:

Design: Monitoring indicators

- Assessment of the current primary care and inpatient care practice in Cyprus and identification of trouble areas that the introduction of value-based models and incentives could address, e.g. for primary care these could focus on changing the practices of PDs within the System covering things like referral pattern to Specialists, how PDs offer services in their practice and how they fulfil their gatekeeping role (use of clinical guidelines, implementation of relevant instructions by HIO, training needs, interaction with other providers, etc) and for secondary care these could focus on the additional data requests from hospitals and using it to link reimbursement to quality standards such as for

example readmission rates and infection rates. Also, how to use the results of the MOH project on clinical protocols in order to link reimbursement to this.

- Identification of best practices in terms of suitable value-based models from comparable national healthcare systems which could be used in Cyprus.
- Consultation with PDs/hospitals and patients in Cyprus to discuss these models and adapt them so that they can be incorporated within the NHS system.
- HIO confirmation of the final value-based models and working out the implementation action plan and the details around implementation. This will include designing detailed KPIs to monitor the compliance and effectiveness of value-based models once implemented.

Implementation Monitoring indicators

- Communication by HIO of the final value-based models together with the relevant *Timelines* to PDs and hospital management and staff.
- Further development of the NHS IT infrastructure by HIO to support the reimbursement of the value-based models.
- Provision of training to healthcare professionals coordinated by the HIO to support the implementation of models.
- Transition period where HIO will monitor the implementation of value-based models and provide guidance.

In addition to the aims above centered on the Cyprus population, in defining the new economic growth model for Cyprus, the long-term economic strategy (LTES) project has identified health and wellness tourism as a sub-sector that has potential to drive new, future economic growth for Cyprus and thus enhancing Cyprus economic resilience and the robustness of its economy model. Enhancing the future-proof nature of the Cyprus health care system through the improved patient experience and outcomes-based provision of care that will be achieved with this transition towards a value-based care model, means improved international competitiveness that can contribute to new economic growth through the attraction of new, long-term residents and/or medical tourists to the island. Similarly, the reforms and investments included in later sections of this plan - Axis 3, Component 3.1 - also align to the strategic objectives of the LTES and support in achieving new, diversified, and sustainable economic growth.

Implementation

The Health Insurance Organisation which is the organisation responsible for the implementation and operation of the General Healthcare System of Cyprus and is also the payer will lead this project with the participation and support from the Ministry of Health.

The implementation of this reform will be accomplished through the following key steps:

- Review and analysis of the current situation within primary care in Cyprus (e.g. PD incentives and motivations, referral patterns, collaboration between primary and secondary care, patient visitations to PDs, PDs' and patients' gain and pain points etc).
- Review and analysis of the current situation within hospital care in Cyprus.
- Review of best practices from other systems and understanding of how these could be employed in Cyprus (e.g. cultural fit, political fit, technical fit).
- Development of appropriate value-based models and initiatives, with relevant monitoring mechanisms to measure and track the success of the reform.
- Consultation with relevant stakeholders (patients, providers, policy makers) to discuss, inform and agree the final value-based models and initiatives and KPIs.
- Introduction of models and initiatives and monitoring of adoption.

Target population

Primary care and hospital care (inpatient care)

State Aid

Not applicable

Timeline

Q1 2023: Value-based reimbursement to be reflected in the Reimbursement Decision for primary and in-patient care for 2022 as per the General Health System Legislation.

Investments

- **Investment 1: New facilities for the Cyprus Blood Establishment (CBE) and procurement of the latest technology attendant equipment**

Challenges

The COVID-19 crisis had a major negative impact in the efficiency and effectiveness of the Blood Establishment (BE) operations. Even though the overall blood component adequacy was satisfactory, there have been periods that dangerous shortages were observed.

The crisis demonstrated the need for changes and improvements in the CBE. Strengthening the resilience and capacity of the Ministry to ensure quality and quantity of blood components is very important.

Also, the implementation of the National Health System with the improved access, universal health coverage has led to a significant increase in the demand of blood components due to the elevated numbers of surgical operations performed.

The investment concerns the construction of new facilities for the Cyprus Blood Establishment and the procurement of the latest technology attendant equipment.

The present building infrastructure of the BE and the lack of relevant equipment negatively impacts the optimal implementation of the decision to centralise this service and hinders further improvements and developments regarding the quality of the service provision. The management and the laboratories of the BE are hosted in Nicosia General Hospital, serious shortcomings on size and layout are to be faced:

- The building infrastructure does not abide by the required guidelines of the European Directives, so as to conform to the European Acquis. The increase in the supply and demand of blood and blood components brought upon by the centralisation of BE services and the new National Health System, has caused serious operational limitations, which cannot be better accommodated in the Hospital's premises.
- Although, the BE has been certified with the ISO 9001:2015, an ideal quality Management System cannot be established. To ensure quality and safety throughout the transfusion chain, the quality system needs to be based on the principles of Good Manufacturing Practice (GMP) and the legal framework defining the quality and safety standards for blood and its components as is set out in European Directives.
 - The infrastructure of the building does not achieve the correct workflow. There is only one entrance/exit for both reception of collected blood by the laboratory staff and distribution of tested blood and blood components to the blood banks.
 - There is no available space for installing new laboratory equipment, as well as space for storage and back up equipment.
 - Lack of appropriate room for staff meetings and training seminars.

- Implementing a three-shift working model is not possible due to the lack of area for staff rest and refreshment.

In the event of disasters, as lately seen in other countries, the present premises of the BE cannot cope with the enormous volume of work that such events may effectuate.

This investment is recognised as an important one that greatly impact the health services provided to patients. Blood components are therapeutic tools of irreplaceable value in many pathological conditions. They are necessary for the performance of surgical operations and are potentially lifesaving in instances of injuries and other emergency situations. The adequacy of blood supply ensures the efficient operations of surgeries in the public and private sector. In addition, it eliminates rescheduling of operations or transfusions, which has great impact on the health of patients and also increases the cost of health provision.

The above points are important and become vital if one considers the increased need for blood supply due to:

- The development/implementation of new medical interventions that require blood transfusion.
- The increase in the number of cases that request blood transfusion.
- The substantial decrease in the number of patients that travel abroad for treatment.
- The increase in the number of the large private hospitals.
- Medical Tourism.
- The need in blood components is sometimes overbearing, due to the high number of Thalassaemia patients. One third of the total blood supply is issued to this category of patients.

The main challenges to be met by the investment include the need for:

- The increase of the efficiency and effectiveness in the operations of the BE of the Ministry of Health.
- The maintenance, improvement and protection of Public Health.
- The improvement of the quality of health services.
- The more efficient implementation of the Health System.

Objectives

- Increase in the number of collected units.
- Uniform distribution of blood donation throughout the year.
- Uniform distribution of blood donation in all districts.
- Uniform adequacy of blood components (FFP, Plt, RC) in all districts.
- Fulfilment of the daily needs in blood components.
- Efficient management of serious events (serious accidents, disasters, pandemic etc.)
- Efficient management of cases requiring special blood groups with low incidence in the population.
- Avoidance of blood component shortages.
- Uniformity of processes, better quality and safety in the blood components distributed.

Implementation

In January 2017 the Minister of Health approved a proposal concerning the centralisation of the blood collection services from all areas of the Republic of Cyprus under the Blood Establishment (BE), which was at that time acting only for the Nicosia District. The proposal was based on a previous Council of Ministers' relevant decision. This led to the gradual centralisation of services and the extension of the BE responsibilities in all districts. The decision to centralise the blood collection services under one organisation posed the following three major changes:

- Central organisation and coordination of blood collection services.
- Central management of blood product inventory and creation of a national safety reserve.
- Central blood testing and processing of whole blood units at the BE laboratories.

The construction for the new facilities for the Cyprus Blood Establishment will be undertaken by the Department of Public Works, in cooperation with the Ministry of Health.

Target population

The whole population.

State Aid

Not applicable

Timeline

Q3 2022: Contract signed for the construction of the Cyprus Blood Establishment facilities in line with the DNSH principles. The contract is a "Design, Build and Maintenance" construction contract and it is based on the pro-forma Government contracts and on FIDIC.

Q2 2025: The new blood establishment facilities are constructed and fully operational in a new building housing the Blood Establishment. New relevant equipment are operational and the transfer of the existing equipment from the present Blood Establishment premises to the new facilities are complete. About 80.000 blood products (e.g. red blood cells, platelets and fresh frozen plasma) will be distributed for clinical use across the whole country, thus about 20.000 patients will benefit from the infrastructure.

- **Investment 2: Cyprus Innovative Public Health ICT System (CIPHIS)**

Challenges

The Unit for Surveillance and Control of Communicable Diseases (Medical and Public Health Services, Ministry of Health) needs to enhance the public health capacity and its monitoring capabilities using evidence-based information extracted from sensory data.

Objectives

The proposed project aims at enabling a well-functioning, capable and resilient national public health ICT system which is not only a top priority but a necessary condition for the normal functioning of the country's Public Health services. The aim is to:

- enrich evidence-informed health policymaking.
- strengthen national, regional public health, local health policies, and the health system pillars in line with WHO and ECDC strategies and policies and the Sustainable Development Goals.

- strengthen, adopt and implement policies that promote health, prevent illness and facilitate access to quality health services by ensuring an inclusive approach across the life course of the population.
- build capacity for data innovation.
- promote emergency preparedness and response in line with WHO/ECDC strategies and policies and the Sustainable Development Goals.
- strengthen the direct link between public health and schools' medical services and at the same time evaluate data on attitudes, lifestyles demography in schools.

In order to achieve the above aims of the Unit, it is essential to transform the existing paperwork processes to digital form by developing and implementing a collaborative data-centric ICT platform. The platform will enable the systematic collection, management and analysis of epidemiological and other sensing data using data analytics and dynamical systems theory. It is noted that as a result of the COVID-19 crisis, the MoH in collaboration with the KIOS Centre of Excellence of the University of Cyprus, have developed the KIOS Emergency Management Information System (EMIS), which is currently being used by all health actors (MoH, GPs, private/public laboratories, Coordination Centres, and other relevant Ministries) for handling the COVID-19 crisis in Cyprus. Hence, the two parties will use the accumulated knowledge and scientific and technical expertise to develop a novel system for efficient and effective monitoring of public health (including epidemiological data) in Cyprus and enable raising awareness at a European level through the ECDC and WHO.

It is noted that this investment is a new initiative for which funding has not been previously requested from any other funding source.

Implementation

This investment aims at establishing a digital coordination centre (CI PHIS) to support public sector bodies in making data-driven evidence-based decisions for public health matters. The investment covers both the development of the necessary digital tools (i.e. software and ICT infrastructure) and the upskilling/training of staff to use the system for data collection, and information extraction.

The specific technical and scientific tools to be developed, implemented and integrated into a CIPHIS system are as follows:

- Module 1a: Digitalise the Influenza Sentinel Surveillance system (ISS) in Cyprus according to ECDC and WHO recommendations
- Module 1b: Based on the collected data and user requirements from the various actors, develop the necessary algorithms for advanced data analytics
- Module 2: Develop an electronic platform based on the ECDC, CDC and WHO recommendations for the:
 - Surveillance and real time monitoring of viral infectious diseases in hospitals (i.e. monitoring of Severe Acute Respiratory Infections (SARI) in the framework of the Influenza Surveillance system)
 - Surveillance and real time monitoring of Hospital acquired infections (HAIs) and outbreaks (e.g. Central line-related bloodstream infection (CLABSI), Ventilator-associated pneumonia (VAP), Catheter-associated Urinary Tract Infections (CAUTI), Surgical site infections (SSIs) etc)
 - Surveillance and real time monitoring of antimicrobial consumption and establishment of antimicrobial stewardship programs,
 - Surveillance and real time monitoring of antimicrobial resistance rates in the Hospitals (e.g. ESBL, KPC, MDR, XDR)

- Surveillance and real time monitoring of hospital ICU admissions and mortality (crude mortality, SARI and HAI associated mortality)
- Module 3: Digitalise the National Notifiable diseases surveillance system for a centralised reporting and monitoring system with integration to the NHS
- Module 4: Develop an electronic platform for the collection, surveillance and real time monitoring of Public Health data for school students of age <18yrs to promote National preventive strategies for childhood
- Module 5: Produce digital tool modules to enable data presentation and automatic reporting on a dedicated Ministry of Health Website and promote early warning, risk estimation, epidemiological model/simulations using the collected data from all the modules.

Scientific and technical development will be carried out by the KIOS Centre of Excellence of the University of Cyprus, which is also accredited European Digital Innovation Hub providing consulting and bringing together expertise on ICT technology and especially AI, optimisation and control theory.

Impediments

The quality of the data collected will drive data analytics results and decision-support algorithms. Since the data collection will be done primarily by health professionals, health professionals' standard practices need to be properly understood, checks during data input needs to be conducted and the data need to be reviewed before final submission to the system. To minimise the impact of this risk a public health official will be assigned the role of ensuring the data collection compliance.

Target population

Public sector bodies at all levels of government, personal doctors (GPs), public health non-governmental organisation, citizens.

State Aid

Not applicable

Timeline

Q2 2022: The Influenza Sentinel Surveillance System (ISS) module of the Cyprus Innovative Public Health ICT System is operational and a system monitoring its effectiveness is in place.

Q4 2023: SARI module will be delivered.

Q4 2024: Integration of other complementary systems for relevant data collection by Q4 2024.

Q4 2025: Following the ECDC and WHO guidelines the Influenza Sentinel Surveillance System (ISS) module of the Cyprus Innovative Public Health ICT System will record epidemiological data entered in the online digital platform by GPs to inform the Ministry of Health of potential outbursts. The Ministry of Health will assign approximately 150 doctors as sentinels that will enter data in the ISS module of the Cyprus Innovative Public Health ICT System.

- **Investment 3: Purchase/replacement of medical equipment in hospitals**

Challenges

In May 2019, after the newly formed health environment in Cyprus but before the introduction of the National Health System, the Minister of Health announced the intent of the government to financially help private hospitals to upgrade or replace their medical equipment.

The challenge involved is, through the implementation of a specific Scheme for the

purchase/replacement of medical equipment in private hospitals, to evenly distribute the available funding to accommodate as many private sector hospitals in upgrading or replacing their medical devices

The intent is also to provide public hospitals with upgraded medical equipment, as the use of modernised medical devices is vital for the upgrading of public hospitals as well, and the effectiveness of the overall healthcare system in Cyprus. The Scheme's provisions are only related to medical equipment and no consumables or other recurrent costs are included.

Objectives

Provide financial aid in a time frame of three financial years as part of their “de-minimis” aid received from the state.

Implementation & Stakeholder involvement

Assessment of applications for state funding for medical equipment upgrade or replacement will be carried out by a section of Medical and Public Health Services of the Ministry of Health, which will be responsible for the inspection and control of private hospitals/clinics. Applications for funding will be assessed by a special Assessment Committee which will be appointed by the Cyprus Minister of Health. If the Committee deems necessary to consult representatives from other departments, they can do so.

Successful applicants of the Scheme will be entitled to funding of 50% of the cost of upgrading or purchasing new medical equipment.

The design of the support scheme will ensure that the financed investment respects the ‘do no significant harm’ principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call for tenders of the Scheme.

Target population

Private and public hospitals.

State Aid

The De Minimis Regulation EU 1407/2013 will be applied. The cumulative amount of support received by the hospitals will respect the de minimis threshold.

Timeline

Q4 2023: At least 10 health institutions have benefited from the support scheme for acquisition of (fixed capital health investments) medical equipment.

Q4 2025: At least 23 of the applicant health institutions of various categories supported for medical equipment acquisition in line with the DNSH principle and excluding recurrent costs.

• **Investment 4: Accreditation of public and private hospitals**

Challenges

On 22 May 2019, the Council of Ministers approved a Scheme for Government funding of private hospitals/clinics to facilitate the process of official Accreditation. The scheme has been in force from September 2019 until 31 December 2020. However, few private hospitals have yet made an application regarding the accreditation funding due to the very strict entry requirements for the hospitals.

The Accreditation Scheme will though be extended to all hospitals, so that there is equal access to benefits to all hospitals. This will also lead to the overall improvement in the quality and standards of health care in Cyprus.

Up to the introduction of NHS in 2019, the healthcare provision was fragmented and of varying standards, with little control over the services provided by the private hospitals/clinics. Once the primary care section of the NHS was introduced and universal health coverage was achieved for the first time for the population of Cyprus, there was even a greater need to strengthen and standardise the secondary healthcare sector.

The sustainability of the hospital sector was under threat due to the lack of accredited hospitals that could be registered with the NHS.

The whole procedure for being accredited is very costly and many small hospitals were unable to afford it.

The main challenges regarding the Accreditation of the private hospitals were the lack of technical and economic support and the lack of incentives up to the introduction of the NHS. The private hospitals were acutely aware of the necessity of being accredited in order to be registered in as health providers in the new NHS. The COVID pandemic has exposed the weaknesses within the healthcare system and the need to access to health services.

The purpose of the Scheme is to help hospitals get accredited in order to achieve a high level of standardised healthcare comparable to international standards. Efforts will be towards including accreditation of hospitals as a prerequisite for participation to NHS, based on respective amendments in legislation if this deemed necessary. Consultation with stakeholders will also be performed towards this direction.

The main challenges are:

- To overcome any system discrepancies and assure official accreditation of public and private hospitals through the adoption of international minimum standards for raising the overall standard of healthcare through improvement in the quality of the services provided.
- Administrative work to be done through the development of accredited processes towards the organisation and provision of patient-oriented care, based on qualitative standards.
- Consultation with stakeholders and respective measures to be adopted for including accreditation as a prerequisite for NHS participation.

The stakeholders and Federation of Employers support the Scheme already announced and agree that financial support will greatly increase the possibility of hospitals funding their Accreditation, especially in this difficult period of economic downturn. The Federation has proposed a modification of the existing regulations so that a graded accreditation process for the private hospitals will be followed with access to funding, if 50% of accreditation has been achieved.

On the 10th of June 2020, the Council of Ministers approved an extension of the Scheme for Government funding of the process of gaining Accreditation for the private hospitals/clinics from 31/12/2020 until 30/06/2021. Further Ministerial Decision might be needed for the revision and extension of the scheme under the new framework set within RRP.

Objectives

- To increase the number of public and private hospitals accredited by a recognised Accreditation Body.
- To increase the number of Accredited hospitals within the NHS, thus increasing quality.

- To improve the overall standards and quality of healthcare in the Republic of Cyprus over the next 5 years.
- To enable hospitals to secure contracts with international health insurance companies and health services organisations.
- To enhance the image and reputation of the Republic of Cyprus on an international playing field as a country providing high quality health services with all the economic benefits of cross border healthcare and medical tourism.
- Hospitals to be able to compete on an equal basis with other hospitals in the field of healthcare provision and thus be more sustainable.

Implementation & Stakeholder involvement

With the introduction of the National Health System in June 2019 and the entry of secondary care in July 2020, the Ministry of Health has recognised the need for Accreditation of public and private hospitals in order to improve the quality and standards of health care.

The recognised Accreditation Bodies have been approved by the national authorities and through the ISQua system.

Assessment of applications for state funding for accreditation is carried out by a section of Medical and Public Health Services of the Ministry of Health, which is responsible for the inspection, and control of private hospitals/clinics. Applications for funding are assessed by a special Assessment Committee comprising of 3 representatives of the Ministry of Health, one accountant and one representative from the Ministry of Finance. If the committee deems necessary to consult representatives from other departments, they can do so.

Successful applicants are entitled to funding of 50% of the cost of advisory services from external experts on how to make the necessary preparations for the Accreditation. The successful applicant is also entitled to 70% of the total cost of Accreditation from the recognised Accreditation Body.

A special Advisory Committee might assist the Competent Authority prior to the issue of any decision. The Advisory Committee has been appointed as an independent group consisting of representatives from the General Healthcare System, the Federation of Employers and Industries and the Focal Point for Health Planning.

The design of the support scheme will ensure that the financed investment respects the 'do no significant harm' principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call for tenders of the Scheme.

Target population

Private hospitals and Hospitals of SHSO.

State Aid

The sponsorship Scheme is under Regulation (EC) No. 1407/2013 on the application of Articles 107 and 108 of the Treaty of the Functioning of the European Union for the De Minimis Aid, and its amended Regulation (EC) No. 2020/972 or as amended thereof, for the purpose of accreditation of Private and Public Hospitals by internationally recognised accreditation bodies.

The cumulative amount of support received by the hospitals will respect the de minimis threshold.

Timeline

Q2 2024: At least 20 Health Institutions have benefited from the scheme and gained an accreditation in line with the DNSH principle.

Q4 2025: At least 45 successful applicants have profited from the scheme and gained an accreditation in line with the DNSH principle.

- **Investment 5: Enhancement, modernisation and upgrade of Cyprus State Hospitals**

- Enhancement of the Accident and Emergency Units across all Cyprus State hospitals.
- Construction and/or extension of Haemodialysis Unit across all Cyprus State hospitals.
- Extension of Invasive Radiology Unit including medical equipment (e.g. Angiography unit) - Nicosia General Hospital.
- Enhancement of the Makarios Hospital for Children to offer a complete treatment of cases to children.
- Enhancement of the Paphos General Hospital.
- Enhancement of the Limassol General Hospital.
- Construction of a COVID19 unit at the Famagusta Hospital.
- Creation of a Communicable Diseases Unit at the Limassol General hospital.
- Construction of a new Mental Health Hospital and procurement of the latest technology attendant equipment.

The projects under this Investment aim to enhance, modernise and upgrade the Cyprus State Hospitals to enable them to compete on an equal basis with the private sector whilst at the same time improving the quality of service to patients.

The main challenges that this investment will address are the following:

- The increase of the efficiency and effectiveness in the operations of the Cyprus State Hospitals and their various Units,
 - The maintenance, improvement and protection of Public Health,
 - The improvement of the quality of health services,
 - The more efficient implementation of the Health System.
- **Enhancement of the Accident and Emergency Units across all Cyprus State hospitals**

Enhancement of the Accident and Emergency (A&E) Units by increasing the capacity to treat patients and all supporting areas and equipment. Meanwhile, the State Health Services Organisation (SHSO) is working on measures for possible substitution of existing hospital inpatient (bed) capacity such as the creation of one-day surgery facilities/wards to avoid unnecessary hospitalisations that are not cost efficient. Further, the proposed investments in the enhancements of the Limassol and Paphos hospitals also provide for such facilities which will be located very close to the Accidents and Emergency Units. The investment concerns the upgrade and construction of new facilities for the A&E units.

Challenges

The present building infrastructure of the A&E units and the lack of relevant equipment negatively impacts the effective treatment of patients and hinders further improvement and development of quality delivered services.

There is an urgent need to increase the patient capacity at the Accident and Emergency Units across all hospitals in Cyprus as well as adding new services such as “short stay” rooms for patients, upgrading the facilities and equipment.

This project is very important for the adequacy and quality of the health services provided to patients. A&E is the first line of admission for a big number of patients and holds an irreplaceable value in many pathological conditions. They are necessary for ensuring that the other operations of the hospitals do not receive unnecessary operational pressure, at the same time engaging in lifesaving treatment in instances of injuries and other emergency situations. The adequacy in A&E capacity and the availability of quality services ensures the efficient operations of the A&E units. In addition, it eliminates waiting times and reduces unnecessary admissions, which have great impact on the health of patients, as well as increasing the cost of health provision.

The above points are important and become vital if one considers the increased need for effective Accidents and Emergency Units due to:

- The increase in the number of cases that require immediate treatment due to the continuous increase in the number of different type of accidents (car accidents, work related accidents etc.).
- The substantial rise in the number of patients due to migration.
- The need to decongest the Accidents and Emergency through triages when not faced with life threatening situations
- The need to avoid unnecessary admissions by creating services such as “short stay” rooms within A&E.

Objectives

Objectives include strengthening the financial position, growth potential and resilience of the healthcare system, as the country experiences growing needs of quick response in the accident and emergency cases especially when faced with growing demand like the one experienced under COVID19. Regional cohesion is also enhanced because it strengthens the A&E departments in all cities of Cyprus and ensures that emergency situations are handled effectively, eliminating the need for transfer to the Nicosia General Hospital.

The aim is to enhance the capacity of the health system of Cyprus to treat patients who need immediate treatment, increasing the predictability and effectiveness and coherence and inclusiveness in the treatment of accident and emergency cases.

Specific objectives include:

- Increase in the number of bed capacity.
- Construction of new A&E facilities where necessary.
- Avoidance of capacity shortages that lead to inability to treat patients.
- Enhancement of the resilience of the health system when faced with growing demand.
- Fulfilment of the daily needs in treatment of emergency cases.
- Efficient management of cases requiring special treatment.
- Efficient management of cases that need short stay service in the A&E before being discharged.
- Uniformity of processes and better quality and safety across all A&E units in the Republic of Cyprus hospitals.

Implementation

Since its incorporation, SHSO has set as one of its main priorities the enhancement of the Accident and Emergency Units across all public hospitals of the Republic of Cyprus. The proposal was based on a previous Ministry of Health decision. The decision to enhance the A&E units poses the following two major changes:

- Enhancement of current facilities to accommodate a higher number of patients to eliminate long waiting times at the A&E units.
- Adding new services, such as, “short stay rooms” for patients.

Target population

Patients who need immediate treatment.

➤ **Construction and/or extension of Haemodialysis Unit across all Cyprus’ hospitals**

The investment concerns the construction of haemodialysis units in all the hospitals of the Republic of Cyprus and upgrade of current facilities at the Nicosia General Hospital.

Challenges

As there is currently only one unit at the Nicosia General Hospital that covers all Cyprus, people from other cities are forced to daily travel more than 100km to have a Haemodialysis treatment. It is imperative that this issue is addressed also because the waiting times are high and the support to patients needs to be upgraded.

The present building infrastructure of the haemodialysis units at the Nicosia General Hospital and the lack of adequate equipment negatively impacts the effective treatment of patients and hinders further improvement and development of quality delivered services.

This project is very important for the adequacy and quality of patient treatment that greatly impact the health services provided to patients. Cyprus faces an increasing number of patients with nephrological problems and eliminating waiting times holds an irreplaceable value in ensuring the well-being of these people. It is necessary to provide support for these patients in all Cyprus public hospitals in an effort to support the patients’ needs, improve working conditions and eliminate operational pressure at the haemodialysis unit of the Nicosia General Hospital. The adequacy in capacity and availability of quality services ensures the efficient operations of the units. In addition, it eliminates waiting times, which has great impact on the health of patients and also decreases the cost of health provision.

The above points are important and become vital if one considers the increased need for effective Haemodialysis Units due to:

- The increase in the number of patients with nephrological problems that require weekly treatment.
- The need to enhance the equipment and provide modern treatment to patients.

Objectives

The Unit will ensure better quality of support of patients with nephrological problems, reduce waiting times and will also enhance the bed capacity and all supporting areas and equipment. It will also increase predictability and effectiveness and coherence and inclusiveness in the treatment of people with nephrological problems.

This project promotes regional and social cohesion within Cyprus, as the country experiences growing needs of haemodialysis units and enhances the resilience of the health system to treat patients with nephrological problems.

Specific objectives include:

- Increase in the number of bed capacity
- Construction of new haemodialysis units in all Cyprus’ hospitals
- Avoidance of capacity shortages that lead to inability to treat patients
- Enhancement of the resilience of the health system when faced with growing demand

- Fulfilment of the daily needs in treatment of emergency cases
- Efficient management of cases requiring special treatment
- Uniformity of processes, better quality and safety across all haemodialysis units in the Republic of Cyprus hospitals.

Implementation

SHSO will be responsible for the construction and extension of the Haemodialysis Units across all public hospitals of the Republic of Cyprus. The decision to enhance the Haemodialysis Units entails the following two major changes:

- Enhancement of current facilities to accommodate a higher number of patients to eliminate long waiting times at the haemodialysis units.
- Improve working conditions and treatment service provided to patients with nephrological problems.

Target population

Patients with nephrological problems.

- **Extension of Invasive Radiology Unit including medical equipment (e.g. Angiography unit) - Nicosia General Hospital**

Challenges

There is an urgent need for the enhancement of the invasive radiology unit with the creation of a specialised neuro invasive radiology unit including an angiography unit.

The Invasive and Neuro invasive radiology represent modern and very promising digital health practices. This project concerns the substantial upgrade of the Invasive and Neuro Invasive Radiology Unit of the Nicosia General Hospital that will provide treatment to all patients in Cyprus. It will provide specialised examinations and treatment across all areas of the Republic of Cyprus. The proposal is one of the key digital health initiatives of SHSO. During 2019, the unit has performed 1.409 invasive treatments, 240 of which were emergencies. The unit also enhances the collaboration between public and private sector as it also treats incidents that are admitted to the unit from private hospitals.

The present building infrastructure of the Invasive Radiology Unit does not have the capacity to treat the growing number of cases. Also, the lack of relevant equipment negatively impacts the optimal implementation of the modern digital health technologies and hinders further improvements and development of quality delivered services. The management and the laboratories of the Invasive Radiology Unit are hosted in Nicosia General Hospital, where there are serious shortcomings with regards to the support offered to the medical staff to perform their duties.

This project is very important for the adequacy and quality of the Invasive Radiology treatment that greatly impacts the health services provided to patients. Invasive Radiology is a modern therapeutic tool of irreplaceable value in many pathological conditions and complex incidents. It represents the future of surgical operations and it is potentially lifesaving in instances of injuries and other emergency situations.

The investment relates mainly to the purchase of a Biplane Angiography Suite. The biplane system has two rotating digital cameras that recreate detailed 3D views of the blood vessels leading to the brain and within the brain and their relationship to the tissues of the head and neck. The system is capable of producing images simultaneously from two regions of a patient's head, from front to back and side to side, decreasing the amount of time it takes to complete a neurological angiogram. The direct use of the equipment is used both for diagnostic purposes

and for surgical interventions. It is actually an assisted imaging platform that is used during interventions. It is a minimally invasive procedure, the digital nature of which, offers patients less risk of bleeding and infection as well as a faster recovery compared to traditional brain surgery. In addition, the equipment is not a stand-alone equipment. Its operating platform is integrated with the hospital's operation system therefore, any medical activity is interfaced into the medical file of the patient. The information about any medical activity is updated automatically and can be viewed by any doctor that has access to the patient's file. This enables the automated sharing of information and improvement of the ability to treat the patient effectively.

The appropriate capacity of this unit ensures the efficient operations of surgeries.

The above points are important and become vital if one considers the increased need for digital health technologies due to:

- The development/implementation of new medical interventions that can be performed using invasive radiology.
- The increase in the number of cases that request neuro invasive radiology.
- The substantial decrease in the number of patients that travel abroad for treatment.
- Medical Tourism
- The need for a modern approach in treating strokes, with mechanical thrombotic surgery approaches.

Objectives

The aim is to enhance the capacity of the health system of Cyprus to transition to the digital health technologies. The use of invasive and neuro invasive radiology will increase predictability and effectiveness, coherence and inclusiveness.

The invasive and neuro invasive radiology are the digital health technologies of the future. They will support patients across Cyprus. The enhancement will cover the extension in the patient facilities as well as the equipment.

This project promotes the technological upgrade of Cyprus Health System, as the country focuses on the digital transition in the area of health, as well as:

- Increase in the capacity of the unit to enable an increase in the number of treatments.
- Neuro-interventional suite with Biplane Angiography.
- Enhancement of the treatments provided through the construction of an independent Biplane Cath-Lab neuro interventional suite with Biplane Angiography.
- Fulfilment of the daily needs in treatment of incidents.
- Efficient management of serious events (serious accidents).
- Enabling the unit to become a centre of excellence in the invasive radiology in the region.

Implementation

The decision to extend the unit is focused on the following major changes:

- Extend the capacity of the unit to be able to treat a higher number of patients.
- Upgrade with the latest technology equipment including the installation of Biplane Angiography Systems.
- Construction of an independent Biplane Cath lab – Neuro-interventional suite with Biplane Angiography.

Target population

Patients of the Invasive and Neuro Invasive Neurology Unit

- **Enhancement of the Makarios Hospital for Children to offer a complete treatment of cases to children**

Challenges

The Makarios Hospital for Children is the only hospital in Cyprus especially dedicated to the treatment of children. However, the hospital lacks specialised areas for Children A&E and a clinic to treat neurological cases for children. It also needs to strengthen its Intensive Care Unit for Neonates, as there is no other specific infrastructure for specialised treatment of children outside the Makarios Hospital.

The present building infrastructure of the Makarios Hospital, which is a building constructed in the 1980s lacks basic infrastructure and relevant equipment to accomplish its mission. This negatively impacts the optimal implementation of the resources to provide specialised treatment support to children and hinders further improvements in the quality of the services delivered. It also fails to provide appropriate working conditions to medical staff.

This project is very important for the adequacy and quality of treatment of children as well to be able to handle new types of incidents and also to be able to accommodate digital health technologies in the treatment of children that will have significant positive impact on the health services provided to patients. This has an irreplaceable value in the well-being of the young population of Cyprus since it will cover the needs across the Republic of Cyprus. It also supports the collaboration between public and private sector as the hospital accepts complex cases that the private sector is unable to treat. It is also necessary for the performance of lifesaving interventions in instances of injuries and other emergency situations especially for children. In addition, it eliminates waiting times for surgery or other treatments, which has great impact on the health of patients and also reduces the cost of health provision.

The above points are important and become vital if one considers the increased need to have an upgraded dedicated hospital for children in order to achieve/address the following challenges:

- The development/implementation of new digital health technologies for the treatment of children.
- The increase in the number of children cases that require specialised support.
- The substantial decrease in the number of patients that travel abroad for treatment.

Objectives

The main objective is to enhance the Makarios Hospital for Children to offer a complete treatment to children cases including Accidents and Emergency, Neurological cases, Intensive Care Unit for Neonates and rare children diseases (National Health strategy). Additional objectives include:

- Increase in the number of children patients that find treatment.
- Uniform approach of treatment for children's cases.
- Fulfilment of the daily needs in treating effectively a variety of children's cases.
- Efficient management of serious events (serious accidents, rare diseases etc.).
- Efficient management of children cases requiring special treatment.
- Uniformity of processes, better quality and safety in the treatment of young children.

Implementation

The SHSO has assigned the upgrade of the Makarios Hospital as a hospital that can support a complete set of treatments to incidents relating to young children as a project of top priority. This has also been approved by the Ministry of Health. The proposal was also based on a previous

Council of Ministers' relevant decision. This led to the preparation of a detailed architectural, civil and mechanical engineering work to enable this project to happen as soon as possible. The decision to upgrade the Makarios Hospital entails the following changes:

- Construction of an Accidents and Emergency Unit especially dedicated to children.
- Construction of specialised treatments units for children such as paedo-neurological clinic and the Burns Unit for children.
- Construction of clinics for rare children diseases and genetics.

Target population

Children treated at the Makarios Hospital.

➤ **Enhancement of the Paphos General Hospital**

The investment concerns the renovation and enhancement of the facilities of the Paphos General Hospital, including the creation of one-day surgery facilities/wards to avoid unnecessary hospitalisations that are not cost efficient.

Challenges

The capabilities and infrastructure of the Paphos General Hospital are currently limited and need to be strengthened.

The Paphos General Hospital offers treatment to a big geographical area which covers not only the Paphos district but also a big number of remote villages in Cyprus including some that are on the green line, next to the occupied area currently held by Turkey.

The present building infrastructure of the Paphos General Hospital, which is a building constructed many years ago lacks basic infrastructure and relevant equipment to accomplish its mission. This negatively impacts the optimal implementation of the resources to provide treatment to patients and hinders further improvements to the quality of the services delivered. It also fails to provide appropriate working conditions to medical staff. As a hospital that also supports remote areas, it needs to have the necessary infrastructure and equipment to be able to support incidents within a logical timeframe, rather than having to transfer patients to other hospitals, in this way unnecessarily delaying treatment.

This project is very important for the adequacy and quality of treatment of patients in the Paphos district which includes a big number of remote villages near the green line, which due to the political situation is difficult to have quick access to any other hospital of the Republic of Cyprus. The hospital, in its current state is unable to handle new types of incidents nor it is able to introduce new methods or accommodate digital health technologies in the treatment of patients. Implementing this project will have significant positive impact on the health services provided to patients. This has an irreplaceable value in the well-being of the population of the Paphos district since it will cover the needs of patients from an extended geographical area. It also supports the collaboration between public and private sector as the hospital accepts cases that the private sector in the Paphos area is unable to treat. It is also necessary for the performance of lifesaving interventions in instances of injuries and other emergency situations especially for patients living in remote areas or near the green line which has great positive impact on the health of patients and also reduces the cost of health provision.

The above points are important and become vital if one considers the increased need to have capable and well-equipped hospital units in districts outside the capital which also cover rural areas:

- The development/implementation of new digital health technologies across the hospitals of Cyprus.

- The increase in the number of cases that require support in remote areas.
- The substantial decrease in the number of patients that travel abroad for treatment.

Objectives

In the context of the National Health strategy, specific focus will be placed on further developing the necessary infrastructure for treating patients and improving the work conditions of the medical staff by expanding the capabilities of the two General Hospitals, adding to their bed capacity, extending the wards, and creating new services such as a “short stay” patient ward for inpatients.

These actions will also contribute to the modernisation of the hospitals, while it also strengthening the regional cohesion. Other objectives include:

- Increase in the number of patients that can be offered treatment.
- Fulfilment of the daily needs in treating effectively a variety of cases across the Paphos district.
- Efficient management of serious incidents (serious accidents, other emergencies etc).
- Efficient management of cases requiring special treatment.
- Uniformity of processes, better quality and safety in the treatment of patients, improvement of working conditions of medical staff.

Implementation

The SHSO has assigned the upgrade of the Paphos Hospital as part of its priorities as it is currently unable to accomplish its mission. This has also been approved by the Ministry of Health. The decision to upgrade the Paphos General Hospital entails the following changes:

- Extension and full renovation of the existing wards to increase bed capacity to 145 beds.
- Restructuring of current structure to enable the creation of a “short stay unit” for patients waiting to be transferred to other hospitals or to be discharged.
- Renovate and create a small facility at the Emergency department as a short stay unit for inpatients.

Target population

Patients living in the wider district of Paphos.

➤ **Enhancement of the Limassol General Hospital**

The investment concerns the renovation and enhancement of the facilities of the Limassol General Hospital, including the creation of one-day surgery facilities/wards to avoid unnecessary hospitalisations that are not cost efficient.

Challenges

The capabilities and infrastructure of the Limassol General Hospital are currently limited and need to be strengthened.

The Limassol General Hospital offers treatment to a big geographical area which covers not only the Limassol district but also a big number of villages in Cyprus.

The present building infrastructure of the Limassol General Hospital, which is a building constructed many years ago lacks basic infrastructure and relevant equipment to accomplish its mission. This negatively impacts the optimal implementation of the resources to provide treatment to patients and hinders further improvements and development of quality delivered services. It also fails to provide appropriate working conditions to medical staff. As a hospital that

also supports remote areas, it needs to have the necessary infrastructure and equipment to be able to support incidents within an appropriate timeframe, rather than having to transfer patients to other hospitals, in this way unnecessarily delaying treatment.

This project is very important for the adequacy and quality of treatment of patients in the Limassol district which has seen an increase in its population due to the economic growth and immigration. The hospital, in its current state, is unable to handle new types of incidents, introduce new methods or accommodate digital health technologies in the treatment of patients. Doing this will have significant positive impact on the health services provided to patients. This has an irreplaceable value in the well-being of the population of the Limassol district since it will cover the needs of patients from an extended geographical area. It also supports the collaboration between public and private sector as the hospital accepts cases that the private sector in the Limassol area is unable to treat. It is also necessary for the performance of lifesaving interventions in instances of injuries and other emergency situations especially for patients living in remote areas or near the green line which has great positive impact on the health of patients and also reduces the cost of health provision.

The above points are important and become vital if one considers the increased need to have capable and well-equipped hospital units in districts outside the capital:

- The development/implementation of new digital health technologies across the hospitals of Cyprus.
- The increase in the number of cases that require support in an area with increased population.
- The substantial decrease in the number of patients that travel abroad for treatment.

Objectives

The Limassol General Hospital needs to have upgraded and enhancement of capabilities in the areas of the ICU and Accidents and Emergency Department. In addition, the creation of a Short Stay Unit will be created to cover the Oncology, endoscopy and other clinics. This will add to the modernisation of the hospital, strengthen the regional cohesion and improve the general working conditions at the hospital.

In this regard, specific focus should be on further developing the necessary infrastructure for treating patients by expanding the capabilities of the Limassol General Hospital to include the planning and constructing an Intensive Care Unit to enable its autonomous operation. The ICU will include two new operating rooms and a recovery room. There is also a need to extend the patient capacity of the Accidents and Emergency Unit, as well as creating new services such as a “short stay” room for inpatients (National Health strategy). Additional objectives include:

- Increase in the number of patients that can be offered treatment.
- Fulfilment of the daily needs in treating effectively a variety of cases across the Paphos district.
- Efficient management of serious incidents (serious accidents, other emergencies etc).
- Efficient management of cases requiring special treatment.
- Uniformity of processes, better quality and safety in the treatment of patients, improvement of working conditions of medical staff.

Implementation

The SHSO has assigned the upgrade of the Hospitals of the Districts of Cyprus as part of its priorities as with their current state are unable to accomplish their mission. This has also been approved by the Ministry of Health. The decision to upgrade the Limassol General Hospital entails the following changes:

- Extension and full renovation of the existing wards to enable the conversion to clinics of oncology, endoscopy, rheumatology and ophthalmology.
- Restructuring of current structure to enable the creation of a “short stay unit” for patients waiting to be transferred to other hospitals or to be discharged.
- Renovate and create a small facility at the Emergency department as a short stay unit for inpatients.

Target population

Patients in Limassol town and district.

➤ **Construction of a COVID19 unit at the Famagusta Hospital**

The investment concerns the construction of a dedicated unit with adequate capacity in order to support patients from all districts of Cyprus for diseases like COVID-19 and other related diseases, and the procurement of the latest technology attendant equipment.

Challenges

The Famagusta Hospital was assigned as the main hospital treating the COVID19 cases. As the cases were increasing, all other hospitals of the Republic of Cyprus had to be engaged to support the emergency caused by the crisis. This has caused problems in the uniformity of treatment as well as disrupting the operation of the other hospitals, leading to a significant reduction in the available wards. This a proposal concerning the construction of a dedicated COVID 19 unit at the Famagusta hospital that will create enough capacity to handle all COVID19 cases, eliminating the need for transfer to other areas.

The present building infrastructure of the Famagusta Hospital lacks the capacity and equipment to absorb the increasing number of the COVID19 cases and this negatively impacts the optimal implementation of the decision to centralise the treatment and hinders further improvements to the quality of services delivered also in other hospitals.

This project is very important for the adequacy and quality of COVID19 treatment that greatly impacts the health services provided to patients. The construction of the unit is of great value for the whole health system of the Republic of Cyprus. It enables the smooth operation of all other hospitals which is necessary for the continuation of the performance of surgical and other operations and it is potentially lifesaving in instances of injuries and other emergency situations. The adequacy of capacity to treat all COVID19 cases under one hospital unit ensures the efficient operations of all hospitals both in the public and private sector.

The above points are important and become vital if one considers the increased need for treatment due to:

- The increase in the number of cases that request COVID19 treatment.
- The importance to continue the smooth operation of other hospitals but also the health system of Cyprus in general.

Objectives

Specific focus should be on further developing the strategic planning and coordination capacity of how Cyprus treats COVID19 patients. By strengthening the COVID 19 Unit capacity at the Famagusta Hospital, the need for units in other hospitals to treat COVID19 cases will be reduced. This will increase predictability and effectiveness, coherence and capacity in the treatment of COVID19 patients by ensuring these are treated in a single unit which is properly equipped in means of equipment and medical personnel (National Health strategy). Other objectives include:

- Increase in the number of available beds to treat COVID19 cases.
- Uniform treatment of COVID19 cases.

- Efficient management of serious events that happen across Cyprus (serious accidents, emergencies etc).
- Efficient management of COVID19 cases which require special treatment.
- Better allocation of dedicated resources and avoidance of disruption in the medical staff resources of other hospitals.
- Uniformity of processes, better quality and safety.

Implementation

The decision to construct the dedicated unit entails the following major changes:

- Central organisation and coordination of the treatment of COVID19 cases.
- Central management of the protocols governing the treatment of the COVID19 cases.
- Extension and upgrade of the wards and equipment used for the care and treatment of the COVID19 patients.

Target population

All patients of Cyprus, for a more effective management of the covid-19 crisis and any future health crises.

- **Creation of a Communicable Diseases Unit at the Limassol General hospital**

Challenges

During the last few years, there has been an increase in the number of dangerous viruses which were the main causes of health crises, either regional or international. Recent examples relate to SARS, Ebola, and now COVID19. The effective handling of this crisis and the protection of Public Health is one of the key priorities of both the Ministry of Health and the SHSO.

The present building infrastructure of the Cyprus hospitals as well as the lack of relevant equipment negatively impacts the optimal implementation of the decision to centralise the treatment of such patients and hinders further improvements and development of quality delivered services.

This project is very important for the adequacy and quality of treatment of communicable diseases that greatly impact the health services provided to patients. These facilities and equipment are necessary to enable other hospitals to continue their smooth operation without any disruption in the performance of surgical operations and can prove lifesaving in instances of injuries and other emergency situations.

The above points are important and become vital if one considers the increased need for specialised facilities and equipment due to:

- The continuous development of new viruses that require immediate response.
- The increase in the number of cases that require urgent treatment.
- The nature of diseases that are highly communicable and present a clear risk to Public Health.

Objectives

This investment focuses on creating a new unit for the treatment of all patients across Cyprus with communicable diseases such as Ebola and Tuberculosis, with separate entry and exit points to avoid transmission.

By increasing predictability and effectiveness, coherence and inclusiveness in the treatment of communicable diseases, the probability of transmission is minimised.

The project promotes regional cohesion within Cyprus, as the country experiences growing needs of quick responses when faced with a communicable disease outbreak. An additional list of objectives includes:

- Effective handling of health crises arising from communicable diseases.
- Uniform and coordinated approach of handling of such crises.
- Safety and security of patients and medical staff.
- Ability in times of crises to continue supporting the handling of other serious events (serious accidents, other emergencies etc).
- Improvement of working conditions for medical staff.
- Uniformity of processes, better quality and safety.

Implementation

SHSO is responsible for providing treatment and support in all these cases as it has the knowledge and expertise to handle these successfully. In accordance with the European Union guidance but also the ECDC guidelines, for the successful handling of these crises, specialised facilities, infrastructure and modern equipment are required. This will lead to the enhancement of the security of the patients but also the medical staff. This decision posed the following major changes:

- Construction of the necessary facilities to enable the positive response to such crises.
- Creation of specially organised spaces that enable treatment, isolation rooms to support the patients.

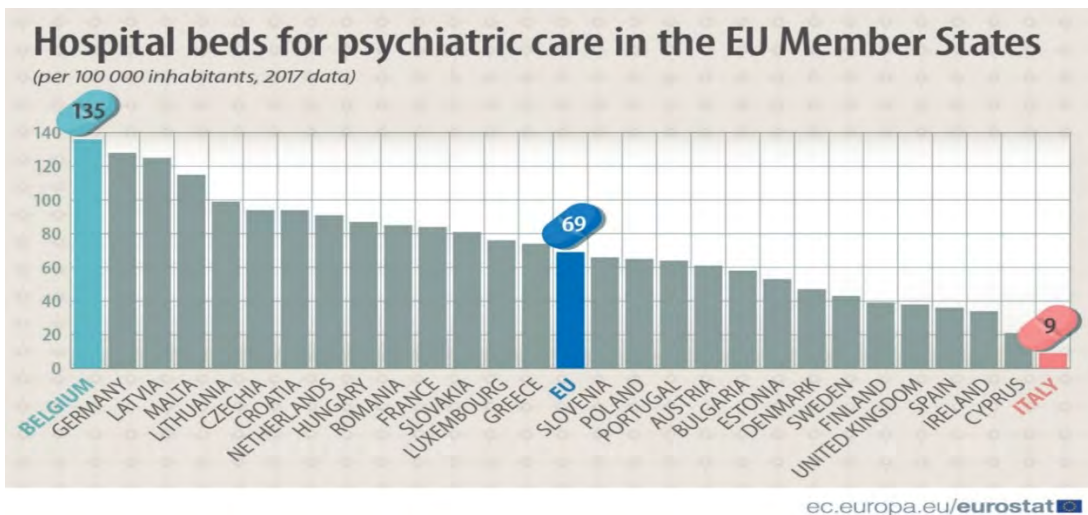
Target population

Patients with communicable diseases.

- **Construction of a new Mental Health Hospital**

Challenges

Cyprus, based on data of 2017, occupied the 27th place among the 28 EU member states for the availability of hospital beds for psychiatric care per population (Source: Eurostat).



During last years the number for compulsory hospitalisation has been increasing and during the last months the cases of compulsory hospitalisation at Athalassa Hospital increased by 130% - 140% above the number of the beds, resulting in problems because of the fullness on a regular basis.

The present building infrastructure of the Athalassa Mental Hospital, which is a building constructed in the 1960s lacks basic infrastructure and relevant equipment to accomplish its mission. This negatively impacts the optimal implementation of the resources to provide specialised treatment support to the mentally ill and hinders further improvements and development of quality delivered services. It also fails to provide appropriate and safe working conditions to medical staff.

The building infrastructure must abide by the required guidelines according to the European Directives and the World Health Organisation, so as to conform to the European and International Acquis. Also, the security system needs to be based on the principles of Good practice as these are dictated by the United Nations and the organisations for the human rights, so as to ensure quality and safety.

This project is very important for the adequacy and quality of treatment of the mentally ill as well to be able to handle new types of incidents and also to be able to accommodate modern mental health methodologies and treatments that will have significant positive impact on the mental health services provided to patients. This has an irreplaceable value in the well-being of the population of Cyprus since it will cover the needs across the Republic of Cyprus. It also supports the collaboration between public and private sector as the hospital is the only one dedicated to Mental Health. In addition, it will provide a refuge for people in serious condition that pose a threat to the members of their families.

The above points are important and become vital if one considers the increased need to have a dedicated hospital to support the Mental Health patients:

- The development/implementation of modern mental health treatments.
- The increase in the number of mental health cases that require specialised support across Cyprus.

Objectives

The investment concerns the construction and enhancement of the facilities of the Athalassa Mental Hospital and the procurement of the latest technology attendant equipment

The objectives include the following:

- Increase in the number of patients that can receive treatment
- Uniform approach of treatment for mental cases
- Fulfilment of the daily needs in treating effectively a variety of mental health problems
- Efficient management of serious incidents that pose a threat to other people
- Security and safety for patients and medical staff
- Uniformity of processes, better quality and safety in the treatment of mental illnesses.

It is moreover noted that the Ministry of Health is aiming at the holistic treatment of the mentally ill patients through prevention and medical care, psychological treatment and rehabilitation (first, second- and third-degree intervention). This covers the modernisation of services and therapeutic approaches in line with EU and WHO recommendations, decentralising community and socially oriented services, promoting multisectoral collaboration especially with primary health care services, social welfare departments, the Ministry of Education and Culture; encouragement of the involvement of voluntary sector and the community in general in psychosocial rehabilitation and prevention (especially in relation to drug addiction and domestic violence), quality of life and mental health promotion.

The current structure of the Mental Health Services, reflecting the National Strategy to Mental Disability, operates within a deinstitutionalisation environment. Currently, there are more than 50

community-based offices with their main objective being to support patients living independently.

Priority is be given in investing in creating alternatives to residential care facilities/Mental Hospitals so that persons with mental disabilities have the opportunity to choose their living arrangements. For this reason, the Mental Health Services continuously invest in these structures both in human and in capital resources.

Significant emphasis is also placed in providing psychological and other support to people in order to prevent them from coming to a state where submission to a mental hospital is required.

Another objective of this deinstitutionalised approach is also to categorise the needs of the patients to enable the Mental Health Services to focus on them depending on their needs and to providing them with dedicated and effective support as necessary.

The investment aims in providing relief to those patients for whom the care received from informal carers is inadequate.

Due to the serious inadequacies of the current infrastructure, unnecessary burden falls on the other health care institutions such as city general hospitals. However, these are not designed for supporting this type of patients and this tactic entails significant risks to other patients.

Integration of primary health care with local community based mental health offices is also a significant part of the National Strategy as most of them operate closely together in order for the local offices to receive support but also for the primary health care sector to solve issues at source relieving the burden away from the mental health centre offices.

In terms of EU funding complementarity, it is noted that ESF+ already supports the establishment of structures of supported living for persons with disabilities in the community, including persons with mental health issues. With the support of ESF+ in the 2014-2020 programming period 7 structures for supporting living have been established. In the current programming period, ESF+ will continue to support the operation of the existing structures and in addition 5 more structures will be established.

Implementation

The Mental Health Hospital is the only hospital in Cyprus specially dedicated to treating and supporting patients with mental illnesses or issues. The SHSO has assigned the construction of a new Mental Health Hospital as a hospital that can support a complete set of treatments and support to patients with mental issues as a project of top priority. This has also been approved by the Ministry of Health. The proposal was also based on a previous Council of Ministers' relevant decision. This led to the performance of a detailed architectural, civil and mechanical engineering work to enable this project to be implemented as soon as possible. The decision to construct a new Mental Health Hospital entails the following:

- Construction of specialised rooms for the mentally ill with rooms of high security for those patients that require close supervision.
- Construction of specialised treatments units for patients that require psychologic or psychiatric support.
- Construction of specialised clinics for detoxification and rehabilitation.

Target population

Patients with mental diseases

State Aid (for entire Investment 5)

Not applicable

Timeline (for entire Investment 5)

Q2 2024: At least 7 State Hospitals are enhanced, constructed and/or upgraded in line with the awarded contracts and taking over certificates, of the completed works, issued.

Q2 2026: 9 State Hospitals are enhanced, constructed and/or upgraded in line with the awarded contracts and taking over certificates of the completed works, issued for (1) Enhancement of the Makarios Hospital for Children to offer a complete treatment of cases to children, (2) Construction and/or extension of Haemodialysis Unit at Paphos and Limassol Hospitals, (3) Construction of Mental Health Hospital, (4) Enhancement of the Limassol General Hospital, (5) Enhancement of the Accident and Emergency Units' across all State Cyprus hospitals, (6) Enhancement of the Paphos General Hospital, (7) Extension of Invasive Radiology Unit including medical equipment (e.g. Angiography Unit), (8) Construction of a COVID 19 Unit at the Famagusta Hospital, (9) Creation of a Communicable Diseases Unit at the Limassol General Hospital.

- **Investment 6: Deployment of generic cross border eHealth services in Cyprus: a) Patient summary and b) ePrescription / eDispensing (part of e-health)**

Challenges

The National e-Health Authority (NeHA) established by Law is acting as the National Contact Point for eHealth with other Member States. In this area there are certain challenges that need to be addressed as follows:

- To establish the appropriate data security and data protection systems for the purposes of complying with cross-border e-services requirements and all applicable national requirements.
- To take all reasonable measures to ensure data security, including confidentiality of data, integrity, authenticity, availability and non-discouragement.
- To implement a proper health data control route to and from Member States which will allow authorised official bodies to properly monitor established mechanisms for collection, processing, translation and transmission of data.

Objectives

The main objective of this reform is to support Cyprus efforts to be part of a secure peer-to-peer network allowing the exchange of Patient Summaries and ePrescriptions, reaching the following general objectives:

- Enable seamless cross-border care and secure access to patient health information between European healthcare systems, particularly with respect to the exchange of Patient Summary and ePrescription.
- Contribute to patient safety by reducing the frequency of medical errors and by providing quick access to patient health information, as well as by increasing the accessibility of a patient's own prescriptions, also when abroad.
- Provide medical personnel with life-saving information in emergency situations and reduce the repetition of diagnostic procedures.

- Support COVID-19 ongoing discussions about guidelines and practices in EU bodies (including the eHealth Network) related to required eHealth infrastructure with respect to cross-border services.
- Enable the national deployment of cross-border services across all healthcare stakeholders integrated with the currently emerging national eHealth digital infrastructure.
- Enable Cyprus to accelerate its pace towards the creation of the European Health Data Space for the exchange and access to different types of health data (electronic health records, genomics data, data from patient registries etc.), not only to support healthcare delivery (so-called primary use of data) but also for health research and health policy making purposes (so-called secondary use of data).
- Support the integration of Artificial Intelligence functionality integration in cross-border services with respect to patient management, analytics and decision making.

Implementation

The implementation will be carried out as a continuation and enhancement of the existing system funded under INEA CEF initiative in a complementary way, through building synergies.

It is noted in this respect that the EU INEA CEF budget was spent in the time span 1/1/2017 to 31/12/2020 for the pilot study for cross border and functionality of the NCP. Although an extension of the INEA CEF project was granted up to the end of Dec. 2021, no additional budget was obtained for this extension from EU. Furthermore, no budget was given for building the technical infrastructure and the deployment from the pilot to the actual system which is aimed by the proposed project.

Investment 6 will include (a) the expansion and improvement of CEF NCP services, and (b) new services:

(a) Expansion and improvement of CEF NCP Services:

- Improvement and expansion of the services to all districts covering all sectors according NeHA's planning (For the moment after audit the functionality will cover only 2 districts.) Providing continuous training and operational support.
- Improvement of reporting capabilities in cooperation with existing infrastructure. This action includes transcoding for the pharmaceuticals list, investments on standardisation.

(b) New Services

- MVC compliance of HIO S/W (updates according MVC)
- Development of secure new interfaces with NHIS and the new IHCIS. Improve security (H/W, S/W, services) according eHN continuously updated requirements.
- Governance Activities.
- New Documentation development and updates regarding BCP, information security, DPIA and other NCP documentation
- X- Health new functionalities (To be available beginning 2022).
- Imaging, under Technical Specifications for Images
- X-eHealth Implementation Guide: Hospital Discharge Report
- D5.3 Laboratory Requests and Reports guideline and functional specifications
- D5.4 Medical Imaging and Reports guideline and functional specifications
- D5.5 Hospital Discharge Reports guideline and functional specifications
- D5.6 Refine PS functional specifications to account for eHN Guidelines and rare diseases
- Interoperability for vaccination certificate.

The specific technical and scientific tools to be developed, implemented, and integrated into a final system are outlined below:

Pillar 1: NCPeH CY Upgrading of existing services based on EHDSI and auditing requirements: At present the NCPeH Cyprus services PS A and eP A & PS B, eP B and eD⁵ are under evaluation in the Wave 4 Formal and Upgrade Pre-Production Testing: 15/02/2021-19/03/2021. Moreover, NCPeH is expecting audit to be carried out in April 2021 (subject to an official confirmation) for going live next month with the services covering Famagusta General Hospital (PS A and B & eP A and B) and Nicosia General Hospital (PS A and B & eP A). This pillar will cover the wave yearly updates prescribed by EHDSI, i.e. for Wave 5, Wave 6, Wave 7 and Wave 8 to be set up in operations in 2022 – 2025, respectively.

Pillar 2: NCPeH CY Roll out for national coverage: This pillar will cover the roll out of the NCPeH Cyprus services PS A and eP A & PS B, eP B and eD to be deployed and be operational covering the whole country. These services under the Wave 4 cover the Famagusta General Hospital and Nicosia General Hospital (outpatient department, A&E, and Health Centres) to be rolled out to the rest of the Government Hospitals in Limassol, Larnaca and Paphos (outpatient departments, A&E, and Health Centres) as well as Private Sector Hospitals and Clinics (outpatient department, A&E, and Health Centres). Doctors and pharmacists training to be carried out in collaboration with all involved stakeholders is also included.

Pillar 3: NCPeH CY Creation of new services to enable the exchange of unstructured clinical documents (images/images reports, discharge letters (encounter report), electronic health record, and laboratory results) & to allow a patient to access the cross border exchanged health data/clinical documents: Ongoing discussions are taking place among 46 EU health actors to prepare the scenery, schema and infrastructure for extending the existing services with the creation of a new service for exchanging unstructured clinical documents that may include images/images reports, discharge letters (encounter report), electronic health record, and laboratory results.

Pillar 4: NCPeH CY Integration with NeHA national infrastructure (including seamless connectivity with the information systems of the Health Insurance Organisation (HIO) and the State Health Services Organisation (SHSO): This will cover the NCPeH CY cross-border services infrastructure integration with the NeHA national infrastructure, incorporating also the seamless connectivity with the HIO and SHSO information systems. It is noted that the NeHA is in advanced negotiations with HIO to set up the patient summary

⁵ PSA: Patient Summary A. CY Beneficiary visits a provider (doctor, or A&E) while in the EU. The provider requests a Patient Summary for Beneficiary from their NCP and a request is made on the CY-NCP.

ePA: e prescription A. CY Beneficiary visits a provider (Pharmacist) while in the EU. The provider requests e Prescription for Beneficiary from their NCP and a request is made on the CY-NCP.

PsB: Patient Summary B. The provider (CY doctor) requests Patient Summary for EU Beneficiary from EU NCP and a request is made through the CY-NCP.

eP B and eD: e-Prescription B. EU Patient requests medication from Cy Pharmacist. Pharmacist request and receives EU e prescription through CY NCP.

E Dispensing. The GHS pharmacist dispenses the medication for the EU beneficiary.

interfacing between the HIO IT system and the NCPeH CY one. Moreover, data regarding COVID-19 cases exchange will be considered through an interface with the existing NCPeH CY platform. In addition, this infrastructure will significantly contribute towards the Cyprus Health Data Space, aligning Cyprus with the emerging European Health Data Space (EHDS) and will enable the NeHA to define and create anonymous data banks to further enable the secondary use of data and decision support mechanisms can also be provided, in the form of recommendations and best practices for the handling of emergency cases. In addition, the integration of NCPeH services with the integrated Electronic Health Record can facilitate precision medicine services and intelligent diagnostics based on AI.

The aforementioned will be implemented through activities concerning Preparation and Implementation, Service testing, approval, and deployment, Operation, Dissemination, Training and Support and Governance and management.

Stakeholder involvement

The partnership of the project consists of the National eHealth Authority (NeHA), the Ministry of Health (MOH) and the University of Cyprus (UCY), the State Health Services Organisation (SHSO), the Health Insurance Organisation (HIO), Private Hospitals, Medical Professionals, the Pancyprian Medical Association (PIS), and the Federation of Patients Associations (OSAK). The project leader is the National eHealth Authority. There is a strong commitment for collaboration among the partnership and an example is the recently signed trilateral agreement the context of the INEA CEF project. A supporter of the national initiatives is also the EU eHealth Network where the NeHA is representing Cyprus.

Target population

The target population consists of all European citizens who travel between Member States receiving medical care on a cross border basis. The project affects the EU health sector as well as health professionals (medical doctors and pharmacists), shaping a new era of healthcare services.

State Aid

Not applicable

Timeline

Q4 2023: Completion of the analysis, design and development of the IT system phase.

Q2 2025: Fully operational cross-border data exchange between Countries with Operational NCPeH with Cyprus (i.e. ePrescriptions, eDispensations, Patient Summaries exchanged with Cyprus) and additional data sets (i.e. discharge forms, lab and imaging) as agreed with eHDSI.

• **Investment 7: Public warning system for supporting emergency operations through SMS**

Challenges

The recent pandemic further highlighted the importance of the preparedness of both state and general population for dealing with emergencies and in particular the role of Civil Protection in a way that is directly useful to the state and society. Civil Protection is of utmost importance not only when there are imminent or obvious dangers but also in peace time. Specific action plans and public preparedness must be in place in order to deal effectively with any danger or hazard. This new initiative will deal with the following challenges:

- Extreme weather events as a result of climate change.
- International terrorism.
- Pandemics.

- Cyber-attacks on critical infrastructure.
- Lack of public awareness.

Objectives

The investment's aim is to ensure that a public warning system regarding imminent or developing major emergencies and disasters is in place, and that public warnings will be transmitted by providers of mobile number-based interpersonal communications services to the end-users concerned, located in or around the disaster area. In this respect, the ultimate objectives are to:

- Increase public safety, preparedness and resilience to imminent or developing disasters.
- Improve critical infrastructure resilience.
- Improve civil protection overall capability to handle emergencies.

Implementation & Stakeholder involvement:

The Cyprus Civil Defence (CCD) will be the central administrator and project manager. The public warning system will be installed in the Main Command Centre of the CCD which is operated 24/7 by five (5) CCD Assistant Officers (A2-5-7). The personnel for the implementation of the investment will be increased (after hiring) to eight (8) CCD Assistant Officers and a CCD Officer (A8-10-11) who will serve as a supervisor.

It is noted that there is no similar public warning system in place in Cyprus. In the light of the pandemic experience, this is the first time that it will be implemented and there has been no request for related funding under any different funding program.

A technical committee established is composed by representatives of the CCD, the Deputy Ministry of Research Innovation and Digital Policy (DMRID), the Office of the Commissioner for Electronic Communications and Postal Regulation (OCECPR), the Cyprus Radio-Television Authority and the Cyprus Police. The committee will be in charge of preparing the technical specifications of the project and implementing the appropriate tendering procedures. After the award of the procurement both the committee and project manager will be in charge of the timely implementation of the deliverables and thus the correct usage of the funds.

Target population

The public warning system targets the general population as a means of alerting them for imminent or developing emergencies.

State Aid

Not applicable

Timeline

Q4 2025: Newly established public warning system is operational, monitoring its effectiveness is in place and it reaches the whole population through a mobile application.

1.4 Open strategic autonomy and security issues

The measures of this component will result in the enhancement of the local health care provision and treatment. The upgrading of the quality of provided healthcare services and the upgrading of medical technology and medical devices in hospitals will result in the provision of adequate quality services to all patients throughout the country. It will result in the efficient management of cases that require special treatment, will lead to the increase in the number of bed capacity giving thus the opportunity to more patients to receive their treatment, as well as to the enhancement of the resilience of the health system when faced with high demand especially at

times of crises. This upgrade of capacity will make Cyprus more self-sufficient in the area of health and thus less dependent on patients' treatment abroad.

1.5 Cross border and multi-country projects

This component does not include a cross-border or multi-country project.

1.6 Green dimension of the component

- The following elements of Component 1.1 have a green dimension:
- Online training and e-learning education under reform 1, without the need of physical presence leads to the reduction of carbon footprint.
- The electronic platform under reform 2 will lead to the development of a paperless surveillance system.
- The proposed project under investment 2 envisions to transform paperwork procedures to fully digitalised ones, benefiting the environment through the reduction of paper.
- The new building under Investment 1 will comply with the energy efficiency criteria (i.e. 20% lower than NZEB which, as per national directives Κ.Δ.Π. 122/2020, corresponds to primary energy consumption of 125kw/m² for non-residential buildings) since it is expected to have an annual consumption of primary energy less than 100kwh / m².
- All additions, buildings, or PU systems and units installed under investment 5 will be part of an overall improvement using alternative energy solutions to cover the electrical energy requirements. The buildings/extensions will be verified as class A to assure that the thermal installation materials will be used on the walls and roof top. All openings (windows, doors etc.) will also be thermal insulated and according to the regulations of the certifying office. Renovations / enhancements will result to, on average, at least 30% reduction on energy consumption compared to current buildings.
- Investment 6 will be executed in line with the European Green Deal which aims to make the EU economy sustainable by turning climate and environmental challenges into opportunities. NCPeH Cyprus cross border services will abide by the action plan of the European Green Deal in order to boost the efficient use of resources.
- Investment 7 contributes to the green transition, as its technology has zero greenhouse gas emissions.

1.7 Digital dimension of the component

The following elements of Component 1.1 have a digital dimension:

- The development of the platform under Reform 1 will provide an electronic access to the healthcare staff on the clinical standards and protocols, supporting thus the digital transition of the healthcare sector.
- The platform under Reform 2 will create a digital health dataset regarding antibiotic consumption, antimicrobial resistance and Healthcare Associated Infections.
- The proposed project under investment 2 will benefit the Units' operational efficiency by eliminating all unnecessary trips to access and evaluate collected data. CIPHIS contributes directly to the digital transition. The project will create tools for the digitisation of current paperwork processes for the online surveillance of infectious disease and monitoring of epidemiological data and the analysis of such data. It will develop all necessary tools that will significantly improve the monitoring, and decision support for public health measures. The digitalisation will further ensure quality, accessibility, efficiency and equity of healthcare. Furthermore, through this proposal we aim to educate our dedicated personnel in proper and sustainable usage of digital tools. This objective is directly in line with the digital transition objective at EU level in the social sectors (including public

administration and public services). More importantly, by transitioning to the digital services, the Unit will be able to make intelligent decisions in real time and thus more responsive to factors such as Covid19. Through these activities, CIPHIS will significantly contribute to the improvement of DESI indexes (with Cyprus being a digital follower, 24th in the EU), especially in digital public services, and the integration of digital technology.

- The project on the Invasive and Neuro invasive radiology (Investment 5) represents modern and very promising digital health practices and promotes regional cohesion within Cyprus, as the country focuses on the digital transition in the area of health.
- The project for Investment 6, operating under the European Green deal will involve investing in environmentally friendly technologies as part of their efforts to reduce the digital sector's carbon emissions. NCPeH Cyprus cross border services contribute in shaping Europe's digital future by developing the core of electronic health records based on a common European exchange format to give European citizens secure access to and exchange of health data across the EU while designed to comply with requirements for a European Health Data Space to improve safe and secure accessibility of health data allowing for targeted and faster research, diagnosis and treatment as per the Open, Democratic, and Sustainable Society pillar. At the same time, data analytics modules to be developed will reply and endorse trustworthy AI as defined in the white paper on AI and Technology that works for people pillar.
- Investment 7 on public warning system contributes to the digital transition as it employs innovative digital technology (software development, connection with telecommunication providers and hardware).

1.8 Do no significant harm

In all measures included in this component that foresee construction works and purchase of new equipment, machinery, vehicles etc., all procurement procedures will require compliance with the DNSH principle as explained in detail in the separate DNSH assessment of the corresponding measure. This will apply both for investments in the public sector and for financial support schemes to the private sector.

See separate assessment performed on this area included as ANNEX 3 - Assessment of the compliance of the Cyprus Recovery and Resilience Plan with the 'Do No Significant Harm' Principle.

1.9 Milestones, targets and timeline

The milestones and targets for the investments/reforms of this component are presented in the attached table.

1.10 Financing and costs

The cost for each milestone and target is presented in the attached table.

1.11 Loan request justification (if applicable)

The following measures will be included in the loan request:

- Reform 3: Gradually shifting of the healthcare provision and reimbursement framework towards value-based models,
- Investment 5: Enhancement, modernisation and upgrade of Cyprus State Hospitals
 - Enhancement of the Accident and Emergency Units across all Cyprus State hospitals.
 - Construction and/or extension of Haemodialysis Unit across all Cyprus State hospitals.

- Extension of Invasive Radiology Unit including medical equipment (e.g. Angiography unit) - Nicosia General Hospital.
- Enhancement of the Makarios Hospital for Children to offer a complete treatment of cases to children.
- Enhancement of the Paphos General Hospital.
- Enhancement of the Limassol General Hospital.
- Construction of a COVID19 unit at the Famagusta Hospital

The reasons for a loan request by Cyprus in this area include the high financial needs in order to mitigate the economic and social impacts of the COVID-19 crisis, the need to upgrade the health care service provision to citizens and the need to address the CSRs related to health (2019: CSR3, 2020: CSR1).

The remaining measures of this Axis will be covered by the Grant element of the Plan.

Policy Axis 2 Accelerated transition to a green economy

COMPONENT 2.1 Climate neutrality, energy efficiency and renewable energy penetration

2. COMPONENT 2.1 Climate neutrality, Energy efficiency and Renewable Energy penetration

2.1 Description of the component

Policy area/domain: Energy Policy

Objectives:

The aim of the component is to contribute to the transition to climate neutrality, through the achievement of the national targets in energy efficiency and renewable energy for 2030. Specifically, Cyprus is committed to increase the share of Renewable Energy Sources (RES) to 23% of the total gross final energy consumption and to 26% of the total gross final electricity consumption, as well as to maintain 39% in heating and cooling and 14% in the transport sector. Respectively, the quantitative targets for 2030 for improving energy efficiency refer to the obligatory targets for achieving cumulative energy saving of 243,04 ktoe during 2021-2030, by applying measures over and above of those set by EU legislation, reaching final Energy Consumption¹ of 2,0 Mtoe in 2030 (representing 13% reduction in final energy consumption) and maintaining Primary Energy Consumption of 2,4 Mtoe in 2030 (representing 17% reduction in primary energy consumption).⁶

The measures included in this component are part of the key policies and measures of the National Energy and Climate Plan (NECP), aiming at the optimal attainment of the national energy and environmental objectives, considering the “energy efficiency first” principle, with expected positive effects on growth, job creation and socio-economic resilience.

Specifically, the component aims to improve the environment policy through measures relating to taxation, the opening up of the electricity market and the facilitation of licensing of renewable energy and renovation projects. It aims to improve the energy efficiency of the building stock and other infrastructure, and support green investments in SMEs, housing, the wider public sector and NGOs. It also aims to enhance the uptake of sustainable construction materials, increase resource efficiency and realise climate benefits. It also targets the alleviation of energy poverty through reduced energy and water bills, while improving affordability of housing and living conditions. A sustainable transformation will also stimulate job creation, as the economy transitions into more digital and less carbon intensive activity, both directly through the implementation of the required investments and indirectly through the resulting increased competitiveness of the economy. Furthermore, the component aims to address Cyprus’ energy isolation and thus its vulnerability to energy supply and prices shocks.

The component includes reforms relating to the introduction of green taxation, the independence of the Transmission System Operator from the incumbent electricity supplier in order to facilitate the opening of the electricity market to competition, as well as the establishment of digital one stop shops for licensing RES projects licensing and facilitating energy renovations in buildings.

The component further includes various support schemes aiming to assist households, enterprises, municipalities, communities and the wider public sector and NGOs to implement energy efficiency and renewable energy investments. It includes investments related to the energy upgrade of public buildings and other public infrastructure, including

⁶ Compared to the respective projection for Cyprus in 2007 in the EU PRIMES 2007 Reference Scenario.

in the water treatment sector. Incentives for the reduction of greenhouse gas emissions in agriculture, industries, businesses and other organisations, are also incorporated in this component, as well as the development of advanced testing procedures in the area of renewable energy and smart grids for promoting high-quality research. Last but not least, the component includes investments relating to smart metering and the opening up of the electricity market to competition. Furthermore, a project of common interest aiming to enhance energy interconnection between Cyprus and Greece is also included in the component.

This component is in line with the country specific recommendations (CSRs) for the years 2019 and 2020, which recommend focusing investment and investment-related policies on energy efficiency and renewable energy.

Reforms:

- Reform 1: Green Taxation
- Reform 2: Independence of Cyprus Transmission System Operator (TSOC) from the incumbent Electricity Authority of Cyprus
- Reform 3: Digital One-Stop Shops to streamline RES projects permitting and to facilitate Energy Renovation in Buildings
- Reform 4: Energy Storage Regulatory Framework

Investments⁷:

- Investment 1: Promoting energy efficiency investments in SMEs, municipalities, communities and the wider public sector
- Investment 2: Promoting renewables and individual energy efficiency measures in dwellings and tackling energy poverty in households with disabled people
- Investment 3: Encouraging the use of renewables and energy savings by local/wider public authorities as well as NGOs and facilitate the transition of local communities towards climate mitigation & adaptation
- Investment 4: Reduction of CO2 emissions in industries, businesses and organisations
- Investment 5: Energy efficiency upgrading of government buildings.
- Investment 6: Upgrading renewable energy and smart grids testing infrastructure at the University of Cyprus
- Investment 7: Mass installation and operation by the Distribution System Operator (DSO) of Smart Metering Infrastructure (Advanced Metering Infrastructure)
- Investment 8: Monitoring and reduction of GHG emissions in agriculture
- Investment 9: Forests fire protection
- Investment 10: Market Management System to facilitate the opening of the electricity market to competition
- Investment 11: Ending energy isolation-Project of Common Interest "EuroAsia Interconnector"

Flagship initiatives: Power up, Renovate, Recharge and Refuel and Modernise

Total estimated budget to be funded through the RRP: € 269,1 mln

⁷ Including COFOQ (General Government Expenditure by Function) Classification

2.2 Main challenges and objectives

Main challenges

The challenges of the component relate to the need to trigger green investments in households, enterprises as well as in municipalities, communities, the wider public sector and NGOs, for buildings, other facilities and processes to become more energy and resource efficient. The major specific challenges relate to:

- **Investment needs:** According to the NECP and the Long-Term Renovation Strategy, the investment needs for reaching the national energy efficiency and renewable energy target for 2030, are considerably high. The relevant investments are expected to reach €12.893m for the transport sector and €816m for all other sectors as total investment cost, while the corresponding public financing needs are €1.890m and €386m, respectively. For increasing renewable energy sources (RES) in heating and cooling, the total estimated investments cost for the period 2021-2030 will reach €910m. To increase investments in RES in the electricity sector (mainly photovoltaics (PV), Wind and Biomass) the total accumulative investments for the same period will reach €1bn.
- **Old building stock:** There are more than 400.000 residential buildings and more than 30.000 non-residential ones. Almost half of the residential buildings are single-family houses. The building stock is relatively new, as most buildings were built between 1980-2000. However, as a result of the absence of energy-related policy measures for the construction of these buildings, most of the existing buildings have a low energy efficiency rating. This is reflected in the final energy consumption of the building sector, which rose dramatically from the late 1990s onwards, with a slight drop in 2013 due to the economic crisis. Based on available statistics, no energy-saving measures have been taken in 49% of the homes, and some form of thermal insulation has been used on the building envelope only in 12% of the homes. Moreover, 83% of buildings used for the provision of services or other business purposes were constructed before adopting any minimum energy performance requirements in July 2020.
- **Business needs and interest on energy efficiency:** Based on current energy efficiency levels in Cypriot businesses the interest in energy efficiency for businesses is high. However, many businesses cannot identify energy saving opportunities, especially smaller businesses, which lack expert knowledge. There is high implementation of simple and low-cost measures, such as replacement of inefficient lighting, but low uptake of measures with higher initial capital investment. High interest exists also in energy renovations of buildings, energy upgrades of process equipment and modernisation of fleet, but these measures are rarely implemented by SMEs due to high costs and lack of funding. Businesses require therefore financial support from the government for the implementation of such measures.
- **Development of the renewable energy and smart grids infrastructure:** Investment in state-of-the-art renewable energy and smart grids infrastructure is necessary to promote high-quality research in emerging renewable energy technologies and smart grids, in order to maximise the penetration of renewable energy sources on the island.
- **High upfront costs:** The investments needed to significantly improve the energy efficiency requires high upfront costs and finding suitable financing solutions is currently challenging.
- **Long payback periods:** Even though upfront investments are recovered from the generated energy and resource savings; the payback period is often perceived as excessive.

- **Generation and supply of electricity:** Currently there is no competitive electricity market in Cyprus based on the European Target Model, and therefore independent generators can only sell their generated energy to the incumbent Electricity Authority of Cyprus or enter into energy only bilateral contracts with the independent suppliers, via the Transitional Electricity Market Regulations.
- **Permitting Procedures: for RES Projects:** The licensing of RES projects and energy renovation of buildings should be streamlined, transparent, non-discriminatory and proportionate. Digitalisation of the process can help to speed up and streamline the process.

Objectives

This component aims to contribute to the green transition and the achievement of the NECP goals, to growth, job creation and social resilience, as well as to the promotion of relevant high-quality research, as follows:

- 1) **Green transition:** The component will contribute to the achievement of the national energy efficiency and renewable energy targets for 2030, as defined in the NECP. It aims to increase resource efficiency, increase the uptake of sustainable construction materials, realise climate benefits and raise public awareness with respect to energy conservation.
- 2) **Sustainable Growth and Jobs:** The component aims to stimulate local investments and, foster the adoption of digital technologies, improve the energy efficiency of the building stock and support green investments in housing, SMEs, NGOs and the wider public sector. Such transformation will enhance the country's growth potential, stimulate sustainable economic activity and job creation, as the economy transitions into more digital and less carbon intensive activity, both directly through the implementation of the required investments and indirectly through the resulting increased competitiveness of the economy.
- 3) **Mitigation of the impact of the crisis:** In response to the current COVID-19 crisis, this component aims at addressing the economic and social impact of the crisis, mainly through the immediate provision of financial support and facilitation of investments.
- 4) **Social resilience:** Energy poverty is affecting the social well-being of the population, producing an energy inequality which affects their living conditions. The transition towards a climate-neutral economy envisages to empower the social integration of the vulnerable consumers and support Just Transition. By providing incentives to renovate the existing stock of buildings, as well as social infrastructure and housing, energy poverty concerns can be alleviated through reduced energy and water bills, while improving affordability of housing and living conditions.
- 5) **High quality research:** Through the development of new advanced testing procedures for the assessment of novel photovoltaic technologies, battery storage systems and enabling technologies for resilient smart grids the aim is to promote the use of cleaner technologies, storage technologies and smart management, assist the decarbonisation of the energy system, create new jobs for high-quality research and technical positions and promote the utilisation of these technologies by the local industry, SMEs and spin-off companies.
- 6) **Competition in the electricity market:** This component aims further at the introduction of competition in the electricity market through the implementation of an appropriate model that will allow the participation of independent suppliers and generators. At the same time, it is also aimed at reforming key stakeholders, such as the Electricity Authority of Cyprus and the Cyprus Transmission System Operator, with a view to creating transparency and confidence for new investors.

- 7) **Front-loading mature public investment projects and facilitating private investment:** By providing clear, streamlined and transparent procedures through a digital platform, both private and public investments can be fast-tracked and implemented in time. The online platform can identify the mature projects and provide comprehensive, easily accessible, and practical information, tools and guidance to assist in the development of bankable renewable energy projects and deep renovation in buildings.

CSRs addressed

This component is in line with the country specific recommendations (CSRs) for the years 2019 and 2020, which recommend focusing investment and investment-related policies on energy efficiency and renewable energy. Proposed investments aim to increase investments in energy efficiency and renewable energy and promote the digital transition.

CSRs Addressed		
Reforms /Investments	Year / CSR Number Recital/s	Justification
Reform 1: Green Taxation	CSR 4.1 2019, Recital 14	The proposed policy tool aims to enhance sustainable transport, by inducing a shift towards more environmentally friendly inland transports and an increase in the penetration of renewable energy, reducing thus air pollution and greenhouse gas emissions.
Reform 2: Independence of Cyprus Transmission System Operator (TSOC) from the incumbent Electricity Authority of Cyprus	CSR 4.1 2019, Recital 17	The reform aims to enhance competition in the electricity market.
Reform 3: Digital One-Stop Shops to streamline RES projects permitting and to facilitate Energy Renovation in Buildings	CSR 4.1 2019, Recital 14, 15 CSR 3.2 2020, Recital 23,24,28	The reform related to the policy on energy efficiency and renewable energy, to the green and digital transition, in particular on clean and efficient production and use of energy.
Reform 4: Energy Storage Regulatory Framework	CSR 4.1 2019, Recital 14 CSR 32. 2020, Recital 23	This reform aims to introduce energy storage to achieve a carbon-neutral energy mix, including contributing to the decarbonisation of transportation, buildings and industry.
Investment 1: Promoting energy efficiency investments in SMEs, municipalities, communities and the wider public sector	CSR 4.1 2019, Recital 14 CSR 3.2 2020, Recital 23	The specific support scheme aims to contribute towards the national climate targets by implementing energy efficiency

		measures such as major renovation of buildings, individual energy efficiency measures for buildings and sport facilities, replacement of street lighting etc, for municipalities and communities and individual energy measures in SMEs.
Investment 2: Promoting renewables and individual energy efficiency measures in dwellings and tackling energy poverty in households with disabled people		The specific support scheme aims to contribute towards the national climate targets by encouraging the use of RES and energy saving in existing dwellings as well as by subsidizing the implementation of small-scale energy renovations and tailored solutions in households with disabled people.
Investment 3: Encouraging the use of renewables and energy savings by local/wider public authorities as well as NGOs and facilitate the transition of local communities towards climate mitigation & adaptation		The specific support scheme aims to contribute towards the national climate targets by providing financial incentives for e.g. thermal insulation of roofs of public buildings, installation of photovoltaic systems and energy efficiency in public building lighting. It further aims to build a substantial pipeline of sustainable energy and climate adaptation investment projects across municipalities and communities in Cyprus, by providing targeted financial, technical, legal and capacity-building support.
Investment 4: Reduction of CO2 emissions in industries, businesses and organisations	CSR 4.1 2019, Recitals 14 and 15 CSR 3.2 2020, Recitals 23, 24 and 25	This investment involves incentivizing 'polluters' by giving them money corresponding to GHG emissions they will avoid.
Investment 5: Energy Efficiency Upgrading of Government buildings	CSR 4.1 2019, Recital 14 CSR 3.2 2020, Recital 23	The specific investment aims at achieving the national targets for reducing greenhouse gas emissions by increasing the participation of Renewable Energy Sources of Government Buildings' energy consumption, enhancing energy supply

		security, promoting energy efficiency and renewable energy sources penetration and investing in energy storage systems, cooling and heating systems.
Investment 6: Upgrading renewable energy and smart grids testing infrastructure at the University of Cyprus		The specific investment aims at the creation of significant research capacity for Cyprus in order to develop its renewable energy and smart grids infrastructure and to shift towards clean energy. This will enable technologies such as energy storage, smart meters and intelligent systems as well as energy efficiency in order to achieve the decarbonisation of its energy system.
Investment 7: Mass installation and operation by the Distribution System Operator (DSO) of Smart Metering Infrastructure (Advanced Metering Infrastructure)		The gradual installation of 400.000 electricity smart metering infrastructure on Cyprus' building stock will further contribute towards the national climate targets.
Investment 8: Monitoring and reduction of GHG emissions in agriculture	CSR 4.1 2019, Recital 14 CSR 3.2 2020, Recital 23	This investment aims to improve accuracy in monitoring GHG emissions from agriculture so that current policies effectiveness can be assessed and mitigated, and future policies can be more targeted and effective.
Investment 9: Forests fire protection	CSR 4.1 2019, Recital 13 CSR 3.2 2020, Recital 23	<p>The investment will contribute to the sustainable management and efficient use of natural resources mitigate adverse climate change effects, preserve and restore natural environment and ensure sustainable economic growth in the long term.</p> <p>The project will help towards the transition to a climate neutral economy through the protection of forests which act as a carbon sink and oxygen supplier.</p>

Investment 10: Market Management System to facilitate the opening of the electricity market to competition	CSR 4.1 2019, Recital 17	The investment aims to enhance competition in the electricity market.
Investment 11: Ending energy isolation-Project of Common Interest "EuroAsia Interconnector"	CSR 4.1 2019, Recital 14 CSR 3.2 2020, Recital 23	The project aims to enhance the energy and resource efficiency, supporting the development and deployment of innovative clean technologies and the use of renewable energy sources.

2.3 Description of the reforms and investments of the component

Reforms

- **Reform 1: Green Taxation**

Challenges

As per recital 23 in the Council Recommendation on the 2020 Stability Programme, “Cyprus faces important challenges in reaching its 2030 target for greenhouse gas emissions not covered by the EU emissions trading system. These challenges need to be addressed by planning and adopting additional measures in a timely manner in accordance with the country’s National Energy and Climate Plan”. In this context the “green tax reform” will complement the direct investments of the component by providing the required tax incentives to all market participants to switch to greener options.

The proposed reform is also related to the “Green Growth indicators”, p.80 of the Country Report for Cyprus 2020 and to the “Indicators ensuring progress with Sustainable Development Goals (SDG) 13 Climate Action,” p.87 of the same Country Report.

Objectives

The proposed tax reform, entails shifting towards more efficient use of the economy’s resources for environmentally sustainable development and the increase in the penetration of renewable energy.

In order to address the serious climate challenges, the Government of the Republic of Cyprus is promoting a fiscally neutral green reform, in accordance also to the European Green Deal. The reform will introduce a carbon tax for fuels used in the sectors of the economy that do not fall under the Greenhouse Gas Emissions Trading Scheme. The reform will also entail the gradual introduction of a levy on water that will reflect the scarcity of this natural resource and the cost to the environment of its use, as well as the introduction of a country wide charge on household/landfill waste. The fiscal neutral Green Tax Reform will take into consideration the effects of the tax on vulnerable households and may propose compensatory measures. The reform aims at reducing greenhouse gas emissions, which are detrimental to the environment, in order to achieve our set goals of reducing emissions by 24% until 2030 (compared to 2005).

Implementation

The reform will be implemented through administrative and legislative measures. The relevant legislation will be drafted within the Ministry of Finance, in cooperation with other competent Ministries (Ministry of Agriculture, Rural Development and Environment, Ministry of Interior,

Ministry of Energy, Commerce and Trade) and the local authorities as well as other stakeholders. Following legal vetting, the draft bill/bills will be tabled to the House of Representatives for enactment and implementation. The main challenge relates to the engagement of all stakeholders and the approval of the legislative reform by the House of Representatives.

The reform is the subject of a technical assistance project under the TSI, which will provide for (i) identification of best practices at EU level on the three environmental levies/taxes that Cyprus intends to introduce (on CO₂ emissions for non-ETS sectors, on water usage and on landfill waste), (ii) assessments of the economic, environmental and social impacts of the reform, focusing on the tax base and revenues for the three above mentioned environmental taxes/levies and (iii) and recommendations as the best way forward in implementing the green tax reform. Based on this the government will proceed to the preparation of draft legislation.

The implementation process will include the following stages:

- Identification of best practices at EU level on the three environmental levies/taxes that Cyprus intends to introduce (on CO₂ for non-ETS sectors, on water usage and on household/landfill waste),
- Assessment of the economic, environmental and social impacts, focusing on the tax base and revenues for the three environmental taxes/levies,
- Enactment of a bill addressing the challenges in reaching 2030 target for greenhouse gas emissions, aiming at:
 - the introduction of a carbon tax for fuels used in the sectors of the economy that do not fall under the EU greenhouse gas Emissions Trading Scheme,
 - the gradual introduction of a levy on water that will reflect the scarcity of this natural resource and the cost to the environment of its use,
 - the introduction of a country wide charge on household/ landfill waste,
- Assessment of the actual impact of the measures of the reform.

According to a preliminary study, the effects from the introduction of carbon tax will lead to a reduction in the use of energy by 100-130 ktoe or 6-8% annually after five years from the initial introduction of the tax.

State Aid

National authorities will safeguard the avoidance of favourable tax treatment for certain companies within the scope of these taxes.

Target population

All natural and legal persons living in Cyprus.

Timeline

Q2 2023: Enactment of a bill, introducing the necessary legislative changes, based on the findings of the independent study that will be undertaken, addressing the challenges in reaching 2030 target for greenhouse gas emissions. Objective of the bill is (a) to introduce a carbon tax for fuels used in the sectors of the economy that do not fall under the EU greenhouse gas Emissions Trading Scheme, (b) the gradual introduction of a levy on water that will reflect the scarcity of this natural resource and the cost to the environment of its use and (c) the introduction of a country wide charge on household/ landfill waste.

Q2 2026: Impact assessment of the measures introduced every year, on the effect on the environment and economic effect on households and businesses as well as adaptation of the measures accordingly.

- **Reform 2: Independence of Cyprus Transmission System Operator (TSOC) from the incumbent Electricity Authority of Cyprus**

Challenges

The Republic of Cyprus' energy policy needs to focus on maintaining supply security, while at the same time enhancing the competitiveness and sustainability of the Cypriot economy, through the introduction of competition in the electricity market. Previous efforts have focused on enhancing transparency and good governance, as central parameters in encouraging new players to participate in both sectors of electricity (generation and supply) and thus increasing competition. Policy needs to focus now on reducing the cost of electricity for domestic and commercial/industrial customers.

Objectives

The Reform facilitates the impartial operation of the competitive electricity market and enhances the competitiveness of the Cypriot economy by increasing the participation of new market players, while at the same time achieving the national energy and environment targets.

Specifically, the Reform aims at creating conditions of trust and transparency for new investors, so that they are motivated to participate in the generation (including electricity generated from RES), energy storage (including the storage of electricity generated from RES), aggregation, demand response and supply, among other functions, of electricity.

Following the approval by CERA of the Trade and Settlement Rules according to the EU Target Model, the accounting unbundling of EAC according to CERA's Regulatory Decisions No. 03/2014 "Accounting Unbundling of EAC activities" and No. 02/2014 "Regulatory Accounting Rules for the preparation of Separated Regulatory Accounts" and the functional unbundling of EAC according to CERA's Regulatory Decision No. 04/2014 "Functional Unbundling of EAC activities", this Reform goes a step further by removing any dependencies between the TSOC (who is also the Market Operator) and the incumbent EAC at all levels. This reform is legally addressed via the Bill "Law for the Regulation of the Electricity Market of 2021", that was submitted to the Parliament on the 23/4/2021 and is envisaged to replace the law currently in force.

Both the EAC and the TSOC will continue to be Legal Entities of Public Law. EAC and TSOC are not "controlled" by a single Ministry since their Boards of Directors and General Management (EAC) or Directorships (TSOC) have extensive decision-making authority and responsibility. On the other hand, both entities are legally responsible for implementing overall government policies (environmental, energy, fiscal), obtaining approvals, and reporting data concerning, for example, their economic position. In that sense, they are obliged to follow horizontal legislative provisions (e.g. related to their financial responsibility, budgeting and budget approval, auditing, etc.). Article 9A of the Electricity Development Law (Chapter 171), grants the Minister of Energy, Commerce, and Industry with authority/powers over EAC. The Regulation of the Electricity Market Law, on the other hand, does not expressly grant the Minister of Energy, Commerce, and Industry authority/powers over the TSOC. The Council of Ministers with its Decision no. E86.257, dated 4/7/2018 has approved the Principles' Paper with respect to the independence of the TSOC from the vertically integrated EAC, upon which related provisions of the Bill titled "Regulation of the Electricity Market (Amending) Law of 2021" were drafted. Section C of the Principles' Paper (paragraphs 11 – 13) is devoted to the independence of the TSOC personnel from EAC, including a transitional period at the end of which any EAC seconded personnel will return back to the EAC. Electricity Authority of Cyprus will remain the owner of the transmission system, under its function as the "Transmission System Owner".

Expected to participate in the electricity market in the short term are:

- Independent Suppliers (17 licensed by CERA).
- Independent Renewable Energy Generators (at minimum 225 projects = 376MW).

- Independent Power Producers (630MW).

In the medium and long-term the following new market players will be able to participate, according to the Bill for harmonizing the national legislation with the Directive (EU) 2019/944 which was submitted to the Parliament on the 23/4/2021:

- Demand Response
- Active Customers
- Citizen Energy Communities
- Energy Storage Facilities – Provisions for Energy Storage Facilities upstream of the meter in the Trade and Settlement Rules according to Regulatory Decision no. 03/2019 are awaiting CERA approval.
- Independent Aggregators
- Interconnection owners
- Interconnection operators

As regards the consumers' right to enter into a contractual agreement with the electricity supplier of their choice, the Distribution System Operator has completed works for the installation of the Meter Data Management System, so as to enable switching between electricity suppliers. The MDMS, among others, provides third-party (suppliers, MO) connection to Meter Management through the External Information System (EIS), so as to implement the energy market provisions related to the provision of the metering data of individual customers to their suppliers as well as the aggregated invoices to the Energy Suppliers in the market. MDMS also allows the DSO to operate as an independent entity in a multi-energy supplier market and to facilitate DSOs main business processes. Currently, the Regulation of the Electricity Market Law of 2003 to 2018 foresees free of charge switching of supplier for electricity customers [Art. 93(1) (στ)] and ensures that they shall receive a final closure account within six (6) weeks after switching.

The Bill submitted to the Parliament on the 23/4/2021 foresees the following for supplier switching:

- Free of charge supplier switching for household customers and small enterprises,
- Suppliers shall provide final customers with a final closure account after any switching of supplier no later than six weeks after such a switching has taken place.
- Household customers shall be entitled to participate in collective switching schemes. CERA shall set out in a regulatory decision the framework according to which suppliers may offer the possibility of a collective switching of suppliers, which will ensure that any regulatory or administrative barriers to mass switching of suppliers are removed and that consumers are protected as far as possible against abusive practices.
- Rules for the protection of customer data related to supplier switching.

Considering accompanying measures targeting the uptake of renewable energy sources more directly, from electricity market regulation point of view the following regulations and rules apply:

- Regulatory Decision 02/2019 on a comprehensive study on the redesign of the transmission and distribution system;
- Regulatory Decision 03/2019, Addressing the basic principles of the regulatory framework for the operation of storage facilities upstream of the meter on the wholesale electricity market;
- Regulatory Decision 03/2020, Adoption of Basic Principles for the development of the Ten-Year Transmission System Development Plan;

- Amendment of the Market Rules and Rules for Transmission and Distribution with regard to demand response, high-efficiency cogeneration installations.

Implementation

The new Trade and Settlement Rules, according to the EU Target Model, introduce Forward, Day Ahead, Intraday (at a later stage) and Balancing Market with a Contingency Reserve (activated if required) to operate a competitive electricity market in Cyprus. These aim to facilitate the activation of new players in generation and supply in both the wholesale and retail energy markets, their active participation in the balancing market, in the provision of ancillary services and reserves, including RES generators, demand response and storage facilities. EAC Supply, as the dominant player, will be obliged to purchase 35% of its half hourly energy demand from the Day Ahead Market.

The next step in the process relates to maintaining that TSOC, who is also the Market Operator, constitutes a separate legal entity from EAC:

1. The TSOC personnel are EAC employees whose terms of employment (appointment procedures, working hours, rules for promotion and employment) are the same as those of the EAC employees.
2. The Law provides that the annual budget of the TSOC is agreed by EAC following consultation with CERA and the Director of the TSOC. EAC submits the budget of TSOC to the Council of Ministers and the House of Representatives for approval. It is noted that the TSOC budget is separated from the EAC budget.
3. According to the Law, “the Owner of the Transmission System makes available to the Transmission System Operator the resources necessary to exercise its responsibilities, including its financing, personnel, and facilities”.

The Bill titled “Law for the Regulation of the Electricity Market of 2021”, will provide TSOC with its own resources (personnel, financial, infrastructure), in order to be entirely independent of the EAC. This is imperative, since TSOC will also be acting as the Market Operator. The Bill contains all necessary measures to ensure that the decisions adopted by the TSOC regarding the provision of access to the transmission network and/or the electricity market are impartial to all interested parties and there is no conflict of interest between the TSOC and EAC.

The proposed reform, therefore, will result in the following:

1. Autonomy in Governance:
 - a. A three-member committee chaired by the Permanent Secretary of the Ministry of Energy, Commerce and Industry will review and make decisions on matters concerning the positions of the Director of Market Operation and the Director of System Operation. The committee will be expanded to a five-member committee for matters pertaining to the remainder of the TSOC employees.
 - b. TSOC will be governed by an Executive Director.
2. Financial Autonomy:
 - a. TSOC budgetary issues (financing, budget approval) will be completely decoupled from the Electricity Authority of Cyprus. TSOC Budget will be drafted autonomously according to the Law on Fiscal Responsibility and Budgetary Frameworks (national harmonisation of Directive 2011/85/EU on requirements for budgetary frameworks of the Member States).
 - b. TSOC revenues will be generated via the TSOC fee (currently at 0,09 €/kWh) according to CERA Decision no. 015/2021, dated 8/1/2021.

- c. Equipment, other than electricity transmission equipment, used by the TSOC but owned by EAC will be transferred to TSOC Ownership. The final list of equipment will be approved by CERA, and the specified items will be transferred to TSOC ownership on the day the Law for the TSOC Budget comes into force.
 - d. TSOC personnel, offices, the National Energy Control Centre and other building facilities will be housed in TSOC-owned premises (rented or privately owned and in any case physically separated from the premises of any legal entity engaged in the production or supply of electricity). Until the transfer of the TSOC its own premises (rented or privately owned) will pay rent to the EAC for the use of EAC buildings.
3. Independence of TSOC Personnel:
- a. EAC personnel that is currently positioned for service at the TSOC will be given the choice to either return to EAC or become TSOC personnel.
 - b. The return of EAC personnel that is currently positioned for service at the TSOC will be completed over a transitional period to ensure the smooth, reliable and safe operation of the electricity system and the smooth operation of the electricity market.

State Aid

Not applicable as the Cyprus Transmission System Operator does not perform any economic activity.

Target population

Natural persons as electricity customers, active consumers, legal persons as electricity customers, consumers as well as activated in the generation of electricity for own consumption, Legal persons (for-profit e.g. market participants and non-for-profit e.g. Energy Communities), country-wide social and economic benefit.

Timeline

Q4 2021: Enactment of the 'Law for the Regulation of the Electricity Market of 2021', which will facilitate the opening of the electricity market to competition and boost the uptake of RES by: (a) achieving the independence of the Cyprus Transmission System Operator (TSOC) from the incumbent Electricity Authority of Cyprus (EAC) (autonomy in governance, financial autonomy and independence of TSOC personnel), (b) introducing the necessary steps for reducing the cost of electricity for domestic and commercial/industrial customers and (c) creating conditions of transparency and trust to motivate new investors in generation and supply of electricity.

- **Reform 3: Digital One-Stop Shops to streamline RES projects permitting and to facilitate Energy Renovation in Buildings**

Challenges

Many investors are hesitant to apply for RES projects permits due to the complicated and lengthy procedures. It is acknowledged that the digitalisation of the licensing permitting process will help remove the barriers and the hesitation of the investors for large scale RES projects. Addressing the need for making the renovation process more straightforward, the one-stop shop is envisaged to offer to building owners/households. The conversion of the existing procedure from hard copy submission and investors a single point of contact for technical and financial support to customise the design of a single or staged deep renovation.

Objectives

This reform aims at the establishment of a Digital Platform for One-Stop Shop for RES and Energy Renovation in Buildings, utilizing thus the provisions set by Article 16 of the recast directive on RES, aiming toward streamlining the permitting process. It further aims to make the

renovation process more straightforward by utilizing the digital platform, offering various services accessible from one source.

The Digital One-stop-shops for RES Projects and building renovation will be a part of a more significant reform project. The development of a new digital platform and e-procedures (e-forms) for the electronic, on-line submission of applications through the portal of the Point of Single Contact (PSC) Cyprus. The PSC Cyprus portal (<https://www.businessincyprus.gov.cy>), operating under the MECl, serves businesses and entrepreneurs, whether established in the Republic of Cyprus or in other EU member states, interested in pursuing their business aspirations in the services sector in Cyprus. The PSC Cyprus portal provides comprehensive information regarding the procedures and formalities required for the access to, and the exercise of, service activities in the Republic of Cyprus, information regarding the business and investment environment, on-line submission of application forms for some procedures, and tracking of the progress of applications submitted.

As indicated in the directive, the contact point of the one-stop-shop (OSS) will guide the applicant through the permit application process in a transparent manner up to the delivery of one or several decisions by the responsible authorities at the end of the process, provide the applicant with all necessary information and involve, where appropriate, other administrative authorities. Furthermore, the platform will provide comprehensive, easily accessible, and practical information, tools and guidance to assist in the development of bankable renewable energy projects and measures for energy efficiency in buildings.

The one-stop will guide building owners how they will get technically and financially feasible advice to deep renovate their buildings. For this purpose, the registry of Energy Auditors shall be part of this platform. In general, the one-stop shop will facilitate building-owners to choose the most suitable way to assess the buildings' energy saving potential i.e. Energy Audit, Energy Performance Certificate, Air - Conditioning and Heating System Inspection.

Implementation

The new RES legislation is based on promoting the use of energy from Renewable (recast) sources based on the Directive (EU) 2018/2001 of the EU parliament and the council of 11/12/2018. Based on Article 16 (Organisation and duration of the permit-granting process), Member states shall (between other elements):

- Cover the relevant administrative permits to build, repower and operate plants to produce energy from renewable sources and assets necessary for their connection to the grid.
- Comprise all procedures from the acknowledgment of the receipt of the application to the transmission of the outcome all the procedures (guide the applicant through the administrative permit application process, provide all necessary information and involve, where appropriate, other administrative authorities, submit relevant documents also in digital form).

In addition, Member States shall ensure that applicants have easy access to simple procedures for the settlement of disputes concerning the permit-granting process and the issuance of permits to build and operate renewable energy plants, including, where applicable, alternative dispute resolution mechanisms. The one-stop-shop can also cover some additional elements (i.e. repowering of existing RES Plants). Furthermore, it is envisaged to link the above procedure (for the mature projects) with a financing mechanism that can further support the mature projects for their implementation and commercial operation.

The digital one-stop shop will also aim to accelerate renovation and increase the number of buildings that are deep renovated. In that respect, all new policy developments would be considered including circular economy (as it is stated in "A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives"). The methodology needed for the

development of a digital one-stop shop development was requested in the form of technical support under DG REFORM. The issue of waste management will be examined and specified, i.e. how to be better integrated, by the above-mentioned technical support.

The One-stop-shop will provide to building owners and investors financial guidance. Integrated part of it will be information about the available funding instruments (including any instruments derived from Cohesion Fund) for each building according to its specific features i.e. building type, building ownership status. Policy funding.

Various stakeholders will be involved in the project, mainly from the Public Sector (Public Works Department, Energy Service Department, Department of Environment, Ministry of Interior (including various Departments), Cyprus Energy Regulatory Authority (CERA), Distributions System Operator, Transmission System Operator, Ministry of Finance, Director General for European Programmers, Coordination and Development, Deputy Ministry of Research, Innovation and Digital Policy and other stakeholders).

Coordination among the various stakeholders could be the main impediment in realizing the reforms, however, no significant implementation difficulties are expected. The above can be overcome, by engaging from the beginning of the reform process all major stakeholders.

State Aid

Not applicable as the reform does not constitute economic activity.

Target population

Legal and physical entities.

Timeline

Q4 2022: Fully operational IT platform for (1) guiding the applicant through the administrative permit application process in a transparent manner up to the delivery of one or several decisions by the responsible authorities, (2) providing the applicant with all necessary information and involve, where appropriate, other administrative authorities.

• **Reform 4: Energy Storage Regulatory Framework**

Challenges

The need to integrate increasing quantities of electricity generated by intermittent renewable energy sources, requires the adoption of a regulatory framework that promotes technologies which increase the flexibility of electricity networks. The recast Electricity Directive (Directive (EU) 944/2019 on common rules for the internal market for electricity) and recast Electricity Regulation (Regulation (EU) 2019/943 on the internal market for electricity) calls for Member States to adopt a new electricity market design, focusing more on consumers, placing electricity storage as a priority in order to achieve the 2030 targets. The challenge is clearly summarised in the press release 18/12/2018 of the European Commission (https://ec.europa.eu/commission/presscorner/detail/en/IP_18_6870), "Markets need to be improved to meet the needs of renewable energies and attract investment in the resources, like energy storage, that can compensate for variable energy production."

Steps have already been taken to close the regulatory gap with respect to the participation of storage systems in the competitive electricity market. Relevant authorities (Cyprus Energy Regulatory Authority (CERA), Ministry of Energy, Commerce and Industry (MECI), Cyprus Transmission System Operator (TSOC), etc.) have already studied the basic principles, methodology and criteria related to the regulation and technical modalities of energy storage systems/technologies (in terms of licensing, operation, special tariff policies etc.), as well as proposed incentives in order to promote the practical adoption of such technologies.

Significant work has been made towards developing a regulatory framework for storage facilities that will be installed “upstream-of-the-meter”. Upstream-of-the-meter storage facilities are storage facilities located in front of the consumer meter (i.e. on the network side of the meter), or on the generation side of the meter for generation facilities which are not combined with electricity consumption other than consumption necessary for the operation of the production facility and their operation is scheduled either by their participation in the electricity market or by the provision of ancillary services to the transmission and/or the distribution systems.

CERA has decided to allow storage facilities located upstream-of-the-meter to participate in the wholesale electricity market in order to promote the development of an economically viable, efficient, safe and consumer-oriented electricity market that prioritizes the generation of electricity from RES. As directed by the Regulatory Decision no. 03/2019 “Establishing the Main Principles of the Regulatory Framework for the Operation of Electricity Storage Installations Upstream the Meter In The Wholesale Electricity Market”, the TSOC has prepared and submitted to CERA for approval by the 31 July 2020, amendments to the Transmission and Distribution Rules (TDRs)⁸ and the Trading and Settlement Rules (TSRs)⁹.

Objectives

This reform is expected to play a key role in delivering carbon-neutral energy supply, including the decarbonisation of transportation, buildings and industry and more broadly net-zero greenhouse gas (GHG) emissions economy by 2050.

Implementation

The regulatory framework in the form of the Regulatory Decision has been prepared by CERA. Currently, the amended TDRs and TSRs are being reviewed and amended by the TSOC and will be approved by CERA. Both CERA and TSOC have the necessary administrative capacity to carry out the tasks of reviewing, amending and approving the related regulatory framework.

The Reform will be implemented according to the Regulatory Decision no. 03/2019 “Establishing The Main Principles of the Regulatory Framework for the Operation of Electricity Storage Installations Upstream the Meter in The Wholesale Electricity Market” and the amended Transmission and Distribution Rules (i.e. the national grid codes) and Trade and Settlement Rules (i.e. the national electricity market model).

Various stakeholders are/will be involved:

- Ministry of Energy, Commerce and Industry (MECI): high level policy making with respect to the promotion of energy storage facilities (including electricity storage);
- Cyprus Energy Regulatory Authority (CERA): translating the high-level policy into a functioning regulatory framework (high level principles upon which storage facilities will be participating in the electricity market);
- Distribution System Operator (DSO - EAC): additional flexibility to the distribution network could be provided by the procurement of ancillary services provided by storage facilities;
- Transmission System Operator Cyprus (TSOC): as a Transmission System Operator to procure through the Electricity Market conventional ancillary services but also specific high-performance ancillary services products (e.g. fast primary regulation, synthetic inertia). As a Market Operator, to facilitate the participation of storage at all stages of the electricity market.

⁸ <https://tsoc.org.cy/electrical-system/transmission-and-distribution-rules/>

⁹ <https://tsoc.org.cy/electricity-market-rules/>

There are no expected impediments with respect to the regulation of the participation of storage facilities in the electricity market.

State Aid

Not applicable

Target population

- Inter alia, RES generators with intermittent electricity generation in order to decrease their financial exposure in the Balancing Market, Storage Facilities for the purpose of providing ancillary services to the transmission or distribution system.
- Households and Businesses.

Timeline

- Issuance of Regulatory Decision no. 03/2019: 5th July 2019.
- Amended Transmission and Distribution Rules and Trade and Settlement Rules submitted to CERA by the TSOC: 31st July 2020.
- CERA request to TSOC to further amend the TDRs and TSRs: 31st December 2020.
- TSOC to submit further amendments to TDRs and TSRs to CERA: (envisaged) April 2021.
- Approval of final TDRs and TSRs by CERA: (envisaged) December 2021.
- **Q4 2021:** Amendment of the Transmission and Distribution Rules (TDRs) and Trading and Settlement Rules (TSRs) will provide the necessary regulatory framework (market rules) and technical modalities that will allow storage facilities to:
 - participate in the wholesale electricity market,
 - promote the development of an economically viable, efficient, safe and consumer-oriented electricity market that prioritizes the generation of electricity from renewable energy systems.
- **Investment 1: Promoting energy efficiency investments in SMEs, municipalities, communities and the wider public sector**

Challenges

To address the challenge of high upfront investment costs, an energy efficiency scheme for buildings and facilities, owned/used by SMEs, Municipalities, Communities and organisations of the wider public sector will be set up. The focus will be mainly on implementing individual measures on buildings, facilities and production processes with high energy consumption. This will have significant positive economic, environmental and social implications. Even though upfront investments are recovered from the generated energy and resource savings, the payback period for many investments is often perceived as excessive. In addition, the majority of the SMEs, Communities, Municipalities and organisations of the wider public sector in Cyprus are considered small with limited personnel and financial resources. Thus, the scheme will provide an opportunity for these enterprises / organisations to materialise energy efficiency investments that most likely would not be materialised otherwise.

Objectives

The aim of this investment is to reduce the primary and final energy consumption and the CO₂ emissions in buildings and/or facilities owned or operated by SMEs, local authorities (Municipalities and Communities) and organisations of the wider public sector by 2026. This also includes the health and social infrastructures. In addition, the scheme will promote the energy audits in SMEs. Measures undertaken in buildings will follow the national Buildings Codes.

The savings achieved will contribute to achieving the cumulative final energy saving target of 243,04 ktoe of Cyprus derived from Article 7 of the Energy Efficiency Directive. The scheme is expected to deliver about 35 ktoe cumulative final energy savings. In addition, these savings reduce the primary energy consumption, the GHG emissions and have significant positive economic and social implications (new jobs), improving the conditions in buildings in the tertiary and industrial sector as well as in public buildings, hospitals and schools. It will also include the adoption of digital technologies (e.g. smart meters, automations, control systems etc.), and the integration of renewables.

Implementation

MECI has the appropriate structures for the management of Grant Scheme Projects. Through its involvement in many other Grant Schemes, the Ministry has acquired the necessary know-how and experience to manage applications. The Project Beneficiaries will be SMEs, local authorities (Municipalities and Communities) and organisations of the wider public, who in order to be awarded must apply by invitation and meet specific criteria selection. Part of the investments could be implemented through energy performance contracts.

The project will be managed by members of the Integration and Monitoring Units (IMU) and Payments and Verifications (PV), which are staffed for the needs of the project.

The indicative implementation stages include the preparation of the Call for Expression of Interest by MECI, the publication of a Call for Expressions of Interest for inviting the potential beneficiaries to submit their proposals within a specified time frame, the submission of Proposals by the Beneficiaries to MECI, the evaluation and/or classification of the Proposals by MECI and the approval by MECI of the maximum number of proposals that can be approved based on the classification and the available budget of the call. At a later stage, successful Beneficiaries will be informed for the signing of the Public Financing Agreement with MECI for the implementation of the Proposals to take place.

The measure is not limited to buildings renovations. Investments that will make production processes more efficient are also included in the scope of the measure. The energy savings will be estimated through Energy Performance Certificates (for investments at the buildings) or through Energy Audits for other investments. Renovation works financed should be proposed by an energy auditor through the energy audit report or by a qualified expert through his recommendations accompanying the energy performance certificate of the building.

The eligible investments under the grant scheme will be:

1. The cost of carrying out an energy audit before the submission, approval and implementation of a proposal, the cost of issuing the Energy Performance Certificate (EPC) before and after the implementation of the measures, individual energy efficiency measures (including building renovations) in buildings such as thermal insulation of horizontal and vertical building elements (such as roofs floors and walls), replacement of windows, external shading, solar systems for the production of hot water, biomass boilers for space heating (only if they will not lead to an increase in the emissions of pollutants into air), waste energy recovery system, high efficiency cogeneration systems, automation and control systems, high efficient air conditioning systems (split units or central systems), smart meters, phototubes, etc.
2. energy efficiency measures related to the production processes such as replacement of refrigerators, heat-recovery systems, insulation of hot-water pipes, appliances, electric motors/variable-speed drives, etc.
3. Energy efficiency measures in municipal sports facilities (indoor gyms / stadiums / swimming pools) such as purchase and installation of a central solar system for water heating (pools) and any other action is included in category (1)

In contrast to Investment 3 which covers individual/targeted investments in RES and energy efficiency by local/wider public authorities as well as NGOs, Investment 1 covers large scale energy renovation of buildings of local/wider public authorities, which needs a combination of measures.

This scheme will be complementary to other schemes, providing grants to single measures for energy efficiency. The scheme will be issued through an on-line platform, in order to collect and compare all necessary information, in order to secure that the same investments will be not de financed by any other scheme.

The design of the support scheme ensures that the financed investments respect the 'do no significant harm' principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call(s) for tenders of the scheme.

State Aid

The scheme will provide aid under the de-minimis rule.

Target population

SMEs, Buildings, Municipalities, Communities and organisations of the wider public sector.

Timeline

Q4 2021: Issue call for proposals for the support scheme for Promoting energy efficiency investments in SMEs, municipalities, communities and the wider public sector.

Q4 2024: Implementation by at least 125 entities (SMEs, municipalities, communities and the wider public sector) of (1) energy efficiency measures in buildings, or (2) energy efficiency measures related to their production processes or (3) energy efficiency measures in municipal sports facilities, due to the support provided.

Q4 2025: Implementation by at least 275 entities (SMEs, municipalities, communities and the wider public sector) of (1) energy efficiency measures in buildings, or (2) energy efficiency measures related to their production processes or (3) energy efficiency measures in municipal sports facilities, due to the support provided.

- **Investment 2: Promoting renewables and individual energy efficiency measures in dwellings and tackling energy poverty in households with disabled people**

- Promoting renewables and individual energy efficiency measures in dwellings
- Tackling energy poverty in households with disabled people

The switch up from traditional non-renewable energy sources to renewable energy sources is something that is of vital importance to Cyprus. Working towards fulfilling a green transition and meeting the cumulative final energy saving target of 243,04 ktoe of Cyprus derived from Article 7 of the Energy Efficiency Directive, will require this investment including the promotion of renewables and individual energy efficiency measures in households around the island. Grants considered will aim to provide support services and energy guidance to vulnerable households and encourage people to get past the high upfront costs of RES installation and the long payback periods. Grants will be provided for the upgrading of Solar Water Heaters, roof thermal insulation and installation of a net metering PV system. This investment aside from the environmental issues also helps tackle energy poverty. Through these grants, access to affordable, safe and reliable energy consumption will be offered to vulnerable electricity consumers and disabled people. In addition, this investment also aims to support small-scale energy renovations and tailored solutions, such as thermal insulation and energy efficient equipment, in at least 250 (up to 300) energy poor and disabled households.

➤ **Promoting renewables and individual energy efficiency measures in dwellings:**

Challenges

The government aims to provide financial incentives to encourage the use of RES and Energy Savings to existing buildings, in order to address the challenge of high upfront costs of RES installation and building insulation and the perceived long payback periods. The Scheme will be provided in the form of grants and will also tackle energy poverty, providing increased grants for investments in the households of vulnerable electricity consumers.

In regard to Heating and Cooling (H&C), Solar Water Heaters (SWH) have been installed since 1960 and Cyprus has the highest per capita SWH system ratio in the world (95% of households are equipped with SWH). Nonetheless, there is a lot of existing stock that needs to be replaced. It is projected that the grant scheme for SWH systems will be amended to promote innovative technologies SWH, such as remote monitoring and control of the systems, as well as advanced energy efficiency (higher energy ranking of the eligible equipment).

Objectives

The Scheme aims to contribute to the achievement of the national renewable energy and energy efficiency targets. While the installation of RES and roof thermal insulation are obligatory for new buildings, the Scheme will aim to encourage the use of renewable energy sources and energy savings by the large stock of old dwellings.

Regarding H&C, Cyprus has an obligation to increase the RES H&C by 1,1% every year. By replacing 1.000 SWH per year a substantial part of the above target can be achieved maintaining Cyprus among the first countries in the world. In addition, the Scheme will aim to promote innovative technologies in SWH, such as remote monitoring and control of the systems.

The set of this support scheme is included in the NECP to meet the RES target and part of the cumulative target of end-use energy savings for the period 2021 - 2030. The savings achieved will contribute in achieving the cumulative final energy saving target of 243,04 ktoe of Cyprus derived from Article 7 of the Energy Efficiency Directive. This scheme along with the scheme for the encouragement of the use of renewables and energy savings by local authorities as well as NGOs and facilitate the transition of local communities towards climate mitigation & adaptation' are expected to deliver a total of more than 37 ktoe cumulative final energy savings. In addition, these savings reduce the primary energy consumption, the GHG emissions and have significant positive economic (new and local jobs) and social implications.

Implementation

The scheme will provide grants for households for thermal insulation of roofs and/or for the installation of a photovoltaic system using the net metering method (including vulnerable electricity consumers) and/or for the installation or replacement of Solar Water Heating (SWH) Systems of an existing dwelling.

The scheme will promote individual measures by separate sub-schemes. The scheme, as - a - whole, will result on average primary energy savings of at least 30%. The calculation of the energy savings of each individual investment, to establish the average savings of 30% for the whole scheme, will be performed (by the implementing authority) as follows:

1. For roof thermal insulation:
 - o Each application will be accompanied by a Calculation Sheet, signed by an Energy Auditor or Qualified Expert, which shows the improvement of the mean heat transfer coefficient after the thermal insulation, as well as the surface (m²) of the insulated roof.

- The above data, combined with existing data, will be used in bottom-up calculation methodologies to calculate the energy savings achieved.
2. For the installation of photovoltaics:
 - Each application will be accompanied by a statement of the installed PV power.
 - This combined with existing data (e.g. the average energy consumption of households, average energy production per kW installed), can yield the primary energy savings achieved.
 3. For the installation/replacement of hot water heating solar systems:
 - Each application will be accompanied by a declaration as to whether it is a new installation or replacement and the characteristics of the investment (tank volume /panels size).
 - These figures combined with the installed solar collector surface (m²) and other existing data will be used in bottom-up calculation methodologies to calculate the energy savings achieved.

The proposed scheme has been implemented by the national “RES and Energy Conservation Fund” for the last two years with positive results as follows:

Investment	Number of applications received	
	2019	2020
PV installation (general public)	2773	2466
PV installation - vulnerable electricity consumers	707	723
Roof insulation	874	583
Roof insulation and PV installation	77	50
SWH systems	-	1950

The following are noted:

- The 2019 schemes were launched in March 2019 (until 20/12/2019) and the 2020 Schemes were launched in June 2020 (until 20/12/2020).
- Average PV power per PV application: 2019:4,5kW 2020:4,69kW
- Each roof insulation provides energy savings of an average of 0,558 TOE per year.

Public consultation with various stakeholder groups (i.e. business, consumers, regulatory authorities etc.) will take place before the re-launching of the grant schemes for possible amendments/improvements. The RES and Energy Conservation Fund have the necessary capacity to run the Scheme. Relevant IT infrastructure for the submission and management/assessment of the applications has been developed. Assessment of applications is being in part contracted.

Within the 3 years of implementation, the scheme is expected to bring about 9.000 PV installations corresponding to a power of about 50MW, 2.000 roof thermal insulations of dwellings (achieving a U-value of below 0,4 W/m²K) and 3.000 replacements of SWH Systems.

Grant schemes for individual/targeted investments in RES and energy efficiency have been operated by the national 'RES and Energy Conservation Fund' since 2009, in parallel to the instrument derived from the Cohesion Fund which concerns deep energy renovation of households. Both schemes are well established to the public and business. Processes have already been established to avoid double funding from similar schemes (exchange of list of beneficiaries, which includes grants provided during previous years).

The design of the support scheme ensures that the financed investments respect the 'do no significant harm' principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call(s) for tenders of the scheme.

State Aid

During the drafting stage, the Grant Scheme was sent to the Cyprus Commissioner for State Aid Control to assess its compatibility with the *acquis Communautaire* on State aid control. Following the above consultation, a new provision was included in the Scheme, according to which dwellings must not be rented or otherwise be used for economic activities (in line with the "RECOVERY AND RESILIENCE FACILITY – STATE AID. [Guiding template: Energy efficiency in buildings](#)").

Target population

Owners of existing dwellings for which the installation of RES and/or roof thermal insulation was not obligatory at the time of the build (including households of vulnerable electricity consumers).

➤ **Tackling energy poverty in households with disabled people**

Challenges

Access to affordable, safe, and reliable energy services is central to ensuring a high standard of living and safeguarding the health of citizens in the European Union (EU). Yet a significant number of people experience energy poverty, defined as the condition where individuals are not able to adequately heat or provide necessary energy services, including cooling and lighting, in their homes at affordable cost. Energy poverty leads to a series of adverse consequences for households and wider society, including poor physical and mental health, low productivity, social exclusion, reduced household budgets and wider political and fiscal impacts.

The drivers of energy poverty are multiple and include: 1) low household incomes; 2) high energy prices and a lack of access to sustainable and clean energy; 3) poor energy efficiency of buildings and electrical equipment; 4) individual energy needs and behaviours (i.e. the way in which energy is used in the home), and increasingly, 5) climate change and extreme weather events such as extreme cold spells or heatwaves. This multi-faceted nature of energy poverty requires coordinated and meaningful action which targets the multiple drivers at their root.

Persons with disability have a greater demand for energy as a result of the longer periods of time spent at home, the use of assistive technologies, and their increased needs for cooling and heating due to specific health conditions affecting the ability of the body to regulate its temperature. They are also at a higher risk of poverty and social exclusion, due to the fact that people with disabilities face significant barriers to quality education and accessing the labour market, with disabled people less likely to be in paid employment, and where people are in paid work, they are more likely to be on lower pay or in part-time employment (CCES, 2013).

Households with disability are thus recognised as being at higher risk of energy poverty. Consequently, there is a clear need for developing tailored activities and measures that target households that are concurrently disabled and energy poor.

Objectives

The main aim of the project is to subsidise the implementation of small-scale energy renovations, such as thermal insulation and energy efficient equipment, in at least 250 (up to 300) energy poor and disabled inhabitants' households. Thermal energy retrofits can have a significant impact on the amelioration of energy poverty and combined with energy efficient equipment and small RES installations can dramatically reduce households' energy consumption over the long-term. Further to the well-established EE&RES solutions, tailored measures will be identified (e.g. energy efficient equipment and appliances such as air conditioning, efficient assistive technologies for disabled people). For this purpose, a task force with relevant stakeholders will be created for identifying the needs of the target group and driving to effective mitigation of energy poverty.

In addition to financial support, personalised counselling services for social and energy guidance will be offered for actively alleviate the incidence of energy poverty in households with disability.

The specific objectives of this proposal are to:

- set up a financial scheme for facing energy poverty in households with disabled people.
- subsidise the implementation of small-scale energy renovations in at least 250 (up to 300) energy poor and disabled households.
- increase thermal comfort in vulnerable households.
- tailored measures and solutions for vulnerable households with disabled people.
- counselling services for social and energy guidance in at least 250 (up to 300) energy poor and disabled households.

It should be noted that the investment does not target social housing specifically. The main aim of the proposal is to tackle energy poverty in households with disabled people by subsidizing the implementation of small-scale energy renovations. There are about 300 registered members in the Cyprus Organisation for Paraplegics (ΟΠΑΚ), which is the primary target group for the measures. **This project includes the technical aid and the guidance of the disabled household owners, in addition to funding for targeted energy upgrading.** The proposal aims in implementing small scale energy measures with a high cost-benefit correlation, including RES installation, building envelope insulation installation, and measures for the improvement of the energy efficiency for specialised equipment that is typical for households with disabled persons (these are not covered in other funding schemes). This proposal comes to add to other proposals, but has a different philosophy, as it gives attention to the financial situation of the households (this approach doesn't demand a full scale renovation as it is typically unaffordable for people with disabilities) and also in the inclusion of additional expenses. In addition, it tackles the issue of energy poverty in an important number of energy poor households. The renovation is small scale but ensures a high energy impact in the households as a 35% reduction in energy use is expected to be achieved.

Implementation

The proposal includes the following key actions:

- Facing for first time effectively specific needs and challenges of households with disabled persons, related to their energy consumption and thermal comfort.
- Setup a task force with relevant stakeholders for identifying the needs (tailored solutions) of the target group and driving to effective mitigation of energy poverty.
- Setup a financial scheme to support vulnerable households and tackle energy poverty.
- Provide support services and energy guidance to vulnerable households for energy awareness and improving energy behaviour.
- Monitoring and evaluation of the impact and increase the replication potential.

Indicative list of small-scale energy investments to be supported:

- Installation of roof thermal insulation.
- Replacement or upgrading of specialised equipment.
- Replacement of AC split units.
- Shadings.
- Energy efficient household equipment – Washing machine or/and Fridge.

The design of the support scheme ensures that the financed investments respect the ‘do no significant harm’ principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call(s) for tenders of the scheme.

State Aid

The support scheme will be addressed to households, and thus does not entail any state-aid issues.

Target population

Citizens with disabilities.

Timeline

Q2 2021: Publish first call of proposals for Promoting renewables and individual energy efficiency measures in dwellings on the RES and Energy Conservation Fund website.

Q4 2023: At least 8.500 dwellings and 100 households with disabled people have improved their energy performance due to the tailored solutions (support services and energy guidance) and the financial support provided.

Q2 2026: At least 16.200 (up to 18.000) dwellings and 270 (up to 300) households with disabled people have improved their energy performance due to the tailored solutions (support services and energy guidance) and the financial support provided.

- **Investment 3: Encouraging the use of renewables and energy savings by local/wider public authorities as well as NGOs and facilitating the transition of local communities towards climate mitigation & adaptation**
 - Encouraging the use of renewables and energy savings by local/wider public authorities as well as NGOs
 - Facilitating the transition of local communities towards climate mitigation & adaptation

The implementation of renewables by the local/ wider public authorities as well as NGOs sets a lead by example mindset to the rest of the community for the importance in the adoption of sustainable energy practices. The investment looks at the provision of financial incentives to aid the local/wider public authorities and NGOs to install large scale energy efficiency and RES measures in buildings, infrastructure, and social housing. Local authorities have an integral role in the implementation of the reforms and investments suggested and act as an enabler for the accelerated transition to a green economy. Furthermore, considering that about one third of Cyprus’ population inhabits rural areas, focus needs to be given in the work of the rural local authorities in order to achieve climate mitigation and adaptation. More specifically, the investment looks at the provision of technical and financial expertise to rural Community Councils so that Sustainable Energy and Climate Action Plans are drafted for these regions. Additional support will be provided for the effective implementation of these Action Plans and the achievement of a 55% CO₂ reduction by 2030.

- **Encouraging the use of renewables and energy savings by local/wider public authorities as well as NGOs**

Challenges

The government aims to provide financial incentives to encourage the use of RES and Energy Savings in infrastructure owned and/or used by local authorities, as well as NGOs that provide hosting to vulnerable citizens and social housing. The Scheme envisages to address the challenge of high upfront costs of RES installation and building insulation and the perceived long payback periods. Sponsorship concerns, roof thermal insulation, RES installations (PV and SWH), as well as street lighting.

Objectives

The Scheme aims to contribute to the achievement of the national renewable energy and energy efficiency targets, and specifically to promote the use of RES and energy savings by the large stock of old infrastructure used by local authorities.

The set of this support scheme is included in the NECP to meet RES target and part of the cumulative target of end-use energy savings for the period 2021 - 2030.

The savings achieved will contribute in achieving the cumulative final energy saving target of 243,04 ktoe of Cyprus derived from Article 7 of the Energy Efficiency Directive. This scheme along with the scheme for promoting renewables and individual energy efficiency measures in dwellings are expected to deliver in total more than 37 ktoe cumulative final energy savings. In addition, these savings reduce the primary energy consumption, the GHG emissions and have significant positive economic (new jobs) and social implications.

Implementation

The proposed Scheme will be implemented by the national “RES and Energy Conservation Fund” which has been specifically set up to provide grants for various investments which promote RES and energy saving. The RES and Energy Conservation Fund has the necessary capacity to run the Scheme. Relevant IT infrastructure for the submission and management/assessment of the applications has been developed. Assessment of applications can be in part contracted.

The scheme will provide grants (covering 70-80% of investment) for large scale energy efficiency and RES measures in buildings, infrastructure, and social housing. A minimum investment of €20.000 per proposal will be set. Each proposal may include various measures in different buildings/ infrastructure, however at least 40% of the investments contained in each proposal must specifically concern energy saving measures.

The specific investment covers individual/targeted investments in RES and energy efficiency by local/wider public authorities as well as NGOs, while Investment 1 deep energy renovation of buildings of local/wider public authorities. Processes will be established to avoid double funding.

Applicants that are eligible for this investment are Non-Governmental Organisations (NGOs) that provide hosting to vulnerable citizens and social housing (large investment, over €20.000), while beneficiaries for Investment 2 (Tackling energy poverty in households with disabled people) are specifically disabled people (smaller-scale investment, below €5.000).

The design of the support scheme ensures that the financed investments respect the ‘do no significant harm’ principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call(s) for tenders of the scheme.

State Aid

The Grant Scheme is still at the drafting stage. Consultation has already taken place with the Cyprus Commissioner for State Aid Control to ensure compatibility with the acquis Communautaire on State aid control. Specific entities have already been excluded from the Scheme’s beneficiaries. The Scheme’s final draft will be sent to the Commissioner for assessment.

Target population

Local public authorities, as well as NGOs that operate infrastructure for hosting vulnerable citizens and social housing.

- **Facilitate the transition of local communities towards climate mitigation & adaptation**

Challenges

Local authorities are recognised as important partners in the implementation of structural reforms and investments for accelerating the transition to a green economy. Local rural communities have committed to undertake actions for just, inclusive, decarbonised and climate resilient towns governed by the principles of sustainability.

About a third of the population of Cyprus (241,584)¹⁰ lives in rural communities represented by 348 community councils. Rural communities consume considerable amounts of energy (6,242,492 MWh/year¹¹), corresponding to 37% of the CO₂ emissions of Cyprus (2,604,625 tons/year¹²). Cyprus has committed to a reduction of 21% of its greenhouse gas emissions by 2030 through its National Energy and Climate Plan, and adopted a National Adaptation Strategy and Action Plan, which require significant action by all sectors of the economy and at all levels of governance.

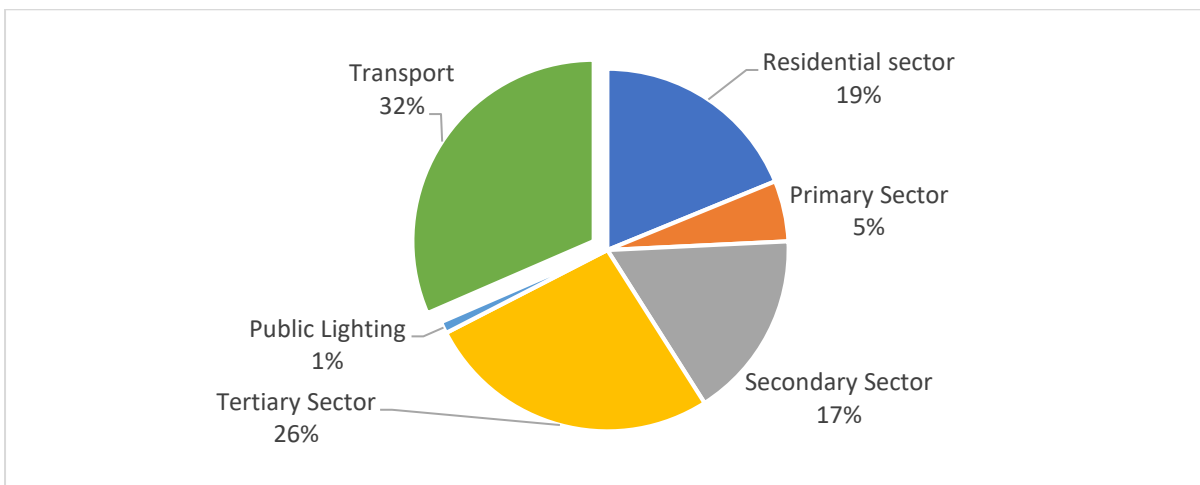


Figure 1: Share of CO₂ emissions per sector in Cyprus Communities.

¹⁰ Census 2011, Statistical Service of Cyprus

¹¹ Baseline year 2009, Source: Cyprus Energy Agency, Electricity Authority of Cyprus, Statistical Service of Cyprus

¹² Baseline year 2009, Source: Cyprus Energy Agency, Electricity Authority of Cyprus, Statistical Service of Cyprus

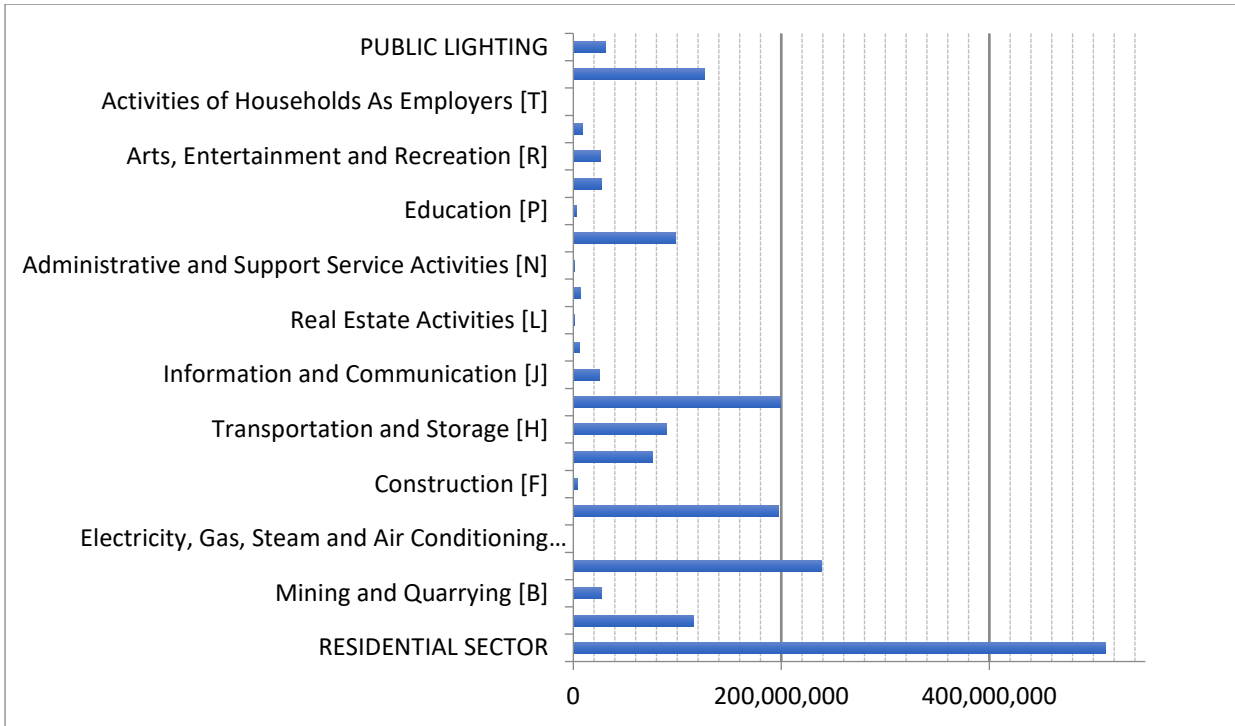


Figure 2: Electricity consumption per economic activity in Cyprus Communities (KWh/year) [Source: Electricity Authority of Cyprus, Cyprus Energy Agency, year 2009]

Community Councils thus have a significant contribution to make to the national climate change mitigation and adaptation targets through the implementation of sustainable energy and climate actions. Furthermore, by focusing support to rural communities, a hitherto disadvantaged group within Cyprus, this proposal contributes to the achievement of the Sustainable Development Goals (namely SDGs 7, 8, 10, 11, 12, 13) and the EU Commission’s Green Deal goals of climate neutrality by 2050 and a just transition for all.

As Community Councils have a direct and personal relationship to their citizens, acting as their voice and champion, they are best placed to act. Community councils already expend considerable efforts on behalf of local communities to ensure the wellbeing of their citizens and sustainable development of their areas. Local community councils, however, are faced with several challenges that significantly impede their capacity to undertake sustainable energy and climate action. Increasing rates of rural to urban migration, low economic diversity, an ageing population, and fewer assets (including infrastructure) have resulted in a lack of technical expertise and resources in rural community councils. As a result, Community Councils require technical support and guidance, in order to support them in achieving their ambitious visions.

Moreover, the high concentration of government services and departments in urban centres, means that information related to energy and climate initiatives and grant schemes often do not reach local rural communities in a timely and effective manner. The majority of government support and subsidy schemes are not designed with the particular characteristics and challenges of rural communities in mind, consequently community councils often do not have equal access and opportunity to benefit from these schemes.

Community Councils are thus in need of technical support and capacity building for the development of dedicated Sustainable Energy and Climate Action Plans (SECAPs), which will enable them to convert their ambitious policies and targets into a roadmap supporting the implementation of sustainable energy and climate action, reduction in greenhouse gas emissions and an increase in their resilience to climate change.

Climate change mitigation and adaptation can bring multiple benefits to the environment, society and the economy. Tackled together through the development of joint SECAPs, they open up new opportunities to promote sustainable local development. This includes building inclusive, climate-resilient, energy efficient communities; enhancing the quality of life; stimulating investment and innovation; boosting the local economy and creating jobs; reinforcing stakeholder engagement and cooperation. Local solutions to energy and climate challenges help provide secure, sustainable, competitive and affordable energy for citizens and therefore contribute to reducing energy dependence and protecting vulnerable consumers.

Objectives

The main goal of this proposal is to build a substantial pipeline of sustainable energy and climate adaptation investment projects across rural communities in Cyprus, by providing targeted financial, technical and legal support. It aims to overcome critical barriers, develop credible investment packages and mobilise finance.

The specific objectives of this proposal are:

- To provide practical, locally rooted technical and financial expertise to rural Community Councils in the development of 32 joint Sustainable Energy and Climate Action Plans that cover all 348 Communities in Cyprus which will result in a 55% CO₂ reduction by 2030.
- To build the capacity of rural Community Councils' staff members in the development of substantial project pipelines and provide them with the tools, networking and knowledge transfer opportunities in order to facilitate and accelerate the implementation of sustainable energy and climate adaptation investments.
- To setup a Grant Scheme to support local rural Community Councils, to implement sustainable energy and climate adaptation investments. The financial mechanism will support at least 350 credible investments with replication potential. Also includes Municipalities for the Public Lighting type of investment.
- To support rural Community Councils to implement actions to increase (a) energy savings, (b) renewable energy penetration, (c) resilience to climate change and (d) reduction of CO₂ emissions.

Implementation

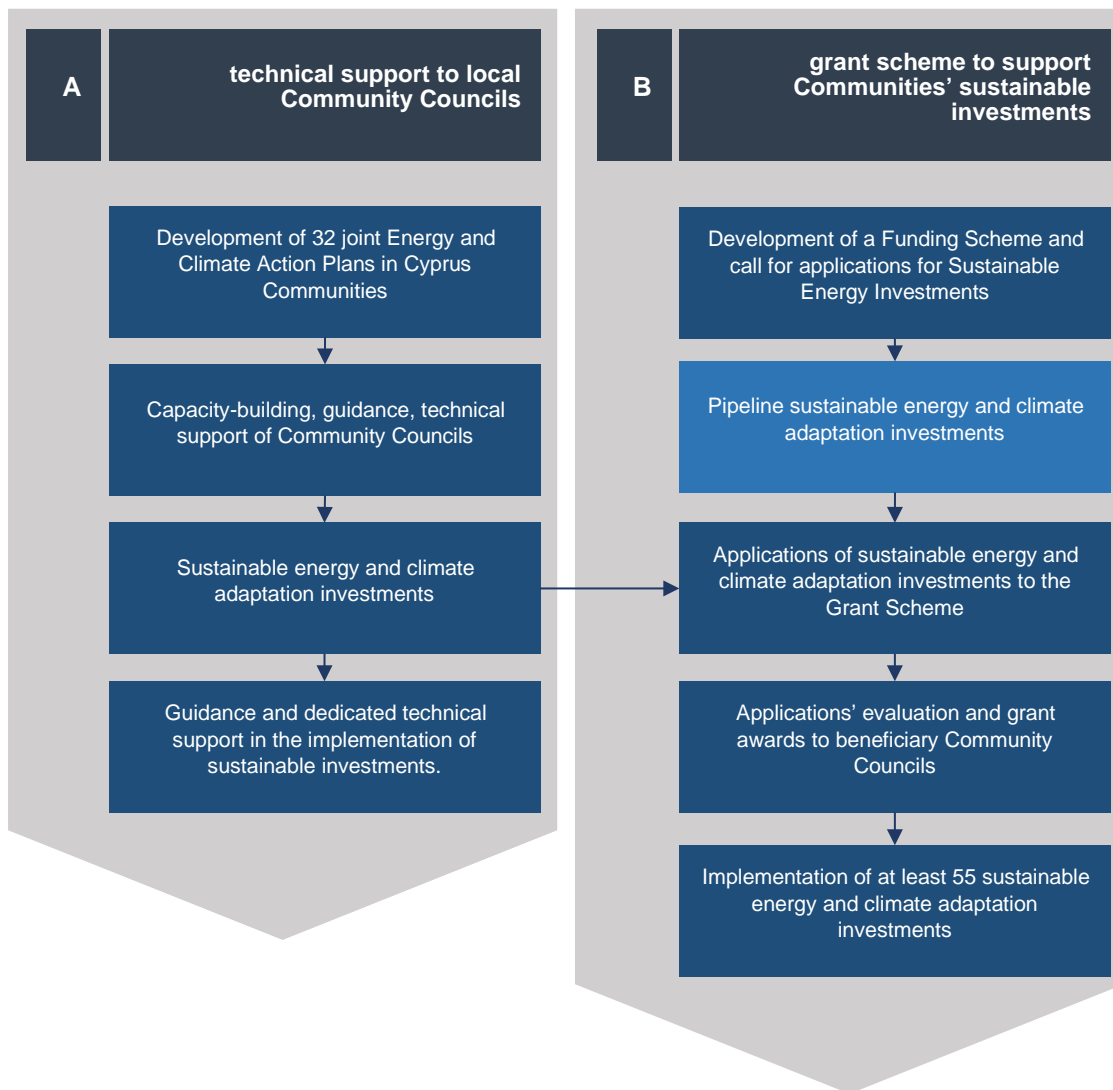
The Cyprus Union of Communities (CUC) and the Cyprus Energy Agency (CEA) have collected information, through a survey of rural community councils, on their needs with regards to energy efficiency and sustainability investments. The survey has been answered by a representative number of the Cyprus Communities, with responses from both peri-urban and rural communities, mountainous, semi-mountainous and coastal communities. The results of the questionnaire are listed below:

- 95% of rural communities are interested in developing a joint Sustainable Energy and Climate Action Plan (SECAP) within their clusters;
- 92% of rural communities are interested in investments on sustainable mobility and climate adaptation measures in their centres and their neighbourhoods. It includes the reshaping of public spaces in order to increase the use of public transport and sustainable mobility, improving resilience and reducing the dependency on cars;
- 89% of rural communities are interested in improving the energy efficiency of their lighting systems, focusing on parks, car parking spaces, pavements and public squares;
- 51% of rural communities are interested in improving the energy efficiency of their water pumping systems including their water supply systems, irrigation systems and wastewater systems;

- 70% of rural communities are interested in improving the energy efficiency of their sport facilities, including football pitches and swimming pools, with a focus on water pumping and pitch lighting;
- 51% of rural communities are interested in purchasing small electric trucks and electric garbage trucks;
- 84% of rural communities are interested in developing individually, or as part of a bigger cluster, processing stations to transform plant and wood cuttings into combustible briquettes/pellets, as a form of renewable energy production, which will then be provided to the residents of the communities for use as fuel in fireplaces and wood stoves.

Based on the results of the survey, this proposal is centered around the following priorities:

- Provision of technical support to rural Community Councils in developing Sustainable Energy and Climate Plans and implementing energy and climate investments.
- Grant Scheme to support the long-term investments in sustainable energy and climate measures by rural Community Councils and Municipalities.



The grant scheme to support rural Community Councils sustainable energy and climate adaptation investments (priority B) is divided into the following thematic areas of investments:

- Energy Efficiency
 - Investments in the energy efficiency of public lighting (in parks, public squares, cycle roads, pavements, parking, roads). This investment is also applicable to Cyprus Municipalities.
 - Investments in the energy efficiency of pumping stations (of water supply, irrigation, sewerage).
 - Investments in the energy efficiency of sports facilities (community stadiums, swimming pools, floodlights and lighting installations).
- Renewable Energy
 - Investments in the processing and transformation of plant and wood cuttings into pellets (a Renewable Energy Source) which will be awarded to citizens for use as a fuel in fireplaces and wood stoves.
- Sustainable Re-Development of Rural Communities, Climate Adaptation and Sustainable Mobility
- Investments in infrastructure related to sustainable mobility and investments in nature-based solutions and green infrastructure in neighbourhoods and cultural districts (e.g. cycle lanes, shared-space streets, pavements, public transport infrastructure, re-design and regeneration of public spaces, regeneration of neighbourhoods through the integration of green infrastructure such as trees and plants and implementation of nature-based solutions along the road network and pavements, parks and other green spaces).

The design of the support scheme ensures that the financed investments respect the 'do no significant harm' principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call(s) for tenders of the scheme.

State Aid

The scheme is addressed to local public authorities, which do not perform any economic activities. In case that more than 20% of the energy generated is sold, GBER will be applied.

Target population

Citizens within the jurisdiction of Cyprus Union of Communities (for the investments in the energy efficiency of public lighting the scheme covers also the Municipalities).

Timeline

Q3 2021: Publish first call of proposals to support local authorities in energy efficiency measures on the RES and Energy Conservation Fund Website

Q4 2023: At least 190 investments undertaken by local authorities or NGOs that have improved their energy performance, and resilience to climate change due to the technical assistance and the financial support provided.

Q2 2026: At least 580 investments undertaken by local authorities or NGOs that have improved their energy performance, and resilience to climate change due to the technical assistance and the financial support provided.

- **Investment 4: Reduction of CO2 emissions in industries, businesses and organisations**

Challenges

Cyprus national greenhouse gas emissions reduction target for 2030 is 24% compared to 2005¹³. This target is for the sectors not included in the EU Emissions Trading System (ETS), i.e. buildings, transport, waste, agriculture. To achieve this target the National Energy and Climate Plan (NECP) for the period 2021-2030 was prepared and finalised in January 2020¹⁴. The NECP was communicated to the European Commission, as required by the Governance Regulation¹⁵. Among others, the NECP includes the policies and measures to be implemented in the coming years in Cyprus in the sectors of energy, transport, waste.

Considering the expected results of the implementation of the policies and measures included in the NECP, the national mandatory target for reducing greenhouse gas emissions is expected to be met to a very large extent (21% reduction is foreseen).

Even though the efforts to reduce emissions in the energy sector are continuous through the promotion of renewables and energy efficiency, Cyprus has seen the largest increase in energy demand in the EU since 1990. Therefore, it becomes mandatory for the country to implement additional investments for decarbonisation using innovative and effective financial mechanisms in order to reach the EU 2030 targets. This approach can be also solidified by a recent study conducted on behalf of the Ministry of Agriculture, Rural Development and Environment¹⁶ identifying areas in which the implementation of additional policies and measures to reduce greenhouse gas emissions is more effective from an economic point of view.

The policies and measures included in the NECP can be clearly distinguished into two packages: Existing policies and measures and Additional policies and measures. The existing policies and measures package can only lead Cyprus to a 10,2% reduction of GHG emissions by 2030 in comparison to 2005, whereas full implementation of the additional policies and measures can contribute an additional 10,7% reductions, achieving a total of 20,9% in 2030 reduction compared to 2005.

Several of the investments proposed in the RRP of Cyprus lead to improvement of energy efficiency, increase of RES contribution and transport, and contribute to the implementation of existing policies and measures included in the NECP. The target of this investment is to go a step further than the existing policies and measures and contribute towards the implementation of the additional measures.

¹³ Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013

¹⁴ https://ec.europa.eu/energy/sites/ener/files/documents/cy_final_necp_main_en.pdf

¹⁵ Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council; available at https://eur-lex.europa.eu/legal-content/EN/TXT/?toc=OJ:L:2018:328:TOC&uri=uriserv:OJ.L_.2018.328.01.0001.01.ENG

¹⁶ Zachariadis, T., A. Michopoulos and C. Sotiriou. 2018. Evaluation of the effectiveness of possible climate change mitigation policies and measures. Final Report submitted to the European Commission's Structural Reform Support Service Service Contract No. SRSS/C2017/024.

The proposed financial Support Scheme aims to bring the industry/business sectors and organisations closer to the country’s climate strategy by changing their way of thinking/ acting towards a green concept (environmental management, circular economy) and help them understand the mid and long term impacts of climate change to their value chains.

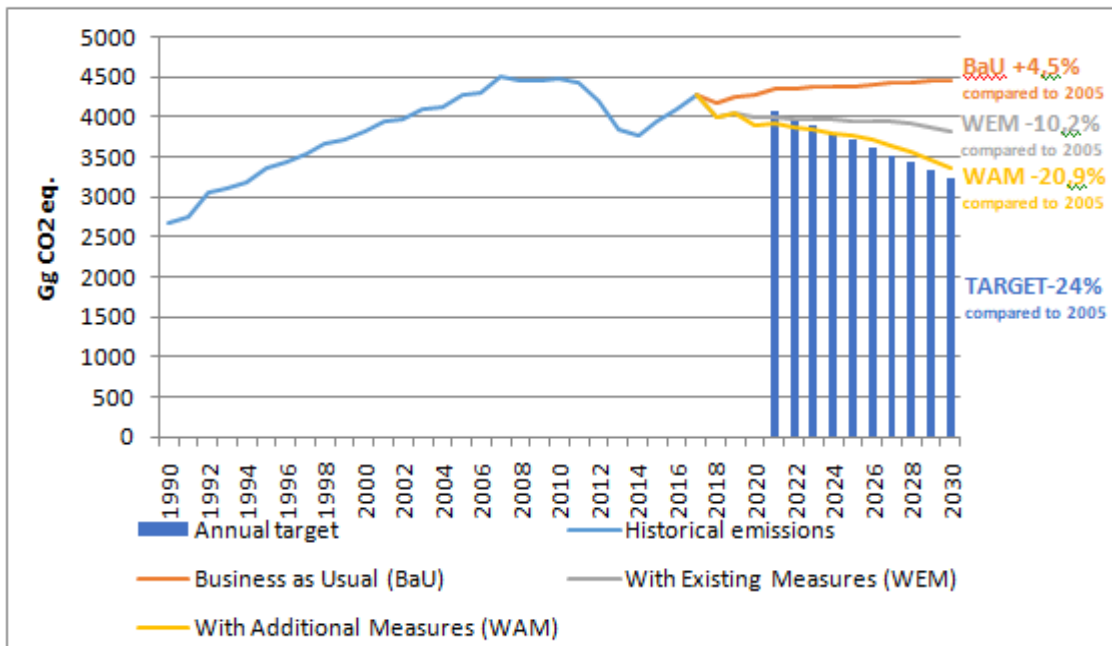


Figure 3: Targets and scenarios for CO₂ reduction

Objectives

Considering: (i) that Cyprus, without additional policies and measures, is not expected to achieve its greenhouse gas emissions 2030 target (shown in above figure) and (ii) the results of the above mentioned study, it was deemed necessary to draw up a new Support Plan to further promote greenhouse gas emissions mitigation actions in the non-ETS sectors.

The basic principle of the new Support Scheme is the payment to the beneficiaries of a sum of money which will correspond to the cost for the purchase of greenhouse gas emission allowances by Cyprus that will be avoided, due to the reduction in emissions resulting from the beneficiaries’ additional actions.

The objective of the investment is to encourage beneficiaries to engage in necessary transformations targeting decarbonisation and implement action plans to reduce greenhouse gas emissions in its operations and/ or supply chains. These reductions will contribute towards the national greenhouse gas reduction target (24%).

Implementation

Investment 4 will be implemented by the Department of Environment through a financial support scheme that is expected to be available for applications in the second semester of 2021. Additional administrative capacity of the implementing authority will be provided with enough staff availability as well as with the establishment of a Help Desk to support the industries, businesses and organisations applying for the financial support by external organisations. The absorption of funds will be regulated by annual calls that will accept applications and fund organisations according to the available budget for the year.

The support mechanism will include the following as eligible elements:

- Verification report for baseline emissions
- Monitoring report
- Verification report for emissions reduction after investments/actions
- Action Plan (decarbonisation roadmap until 2030 including investments/actions until 2026)
- Emission reductions to be financially supported until 2026. Payments will follow investments/action after claim (Fund (EUR) = Emissions reduction (tCO₂eq) x 40EUR/tCO₂eq).

The implementation will be in two parts according to the following procedures:

The first part will financially cover the Preparatory/ Supporting Phase. Upon application, each applicant will be requested to submit (a) a monitoring methodology for its activities, (b) verified GHG baseline emissions, (c) an action plan to reduce its GHG emissions (decarbonisation roadmap until 2030 including investments/actions until 2026); and (d) verified expected GHG emission reductions that can be achieved by the implementation of its Action Plan. A Help Desk also financed under the Preparatory Phase will issue appropriate guidelines for the relevant eligibility criteria for reimbursement of 50% of the cost with maximum reimbursed amount of €15.000. The above will be funded by an already approved national budget supporting appx. several 180 applications and establishing the Help Desk. Also, an amount of €5 mln from RRF will be used for supporting appx. additional 300 applications.

The second part will financially cover the GHG Emission Reductions Phase. Examples of actions that can be included in the Action Plans and be eligible for reimbursement are (a) the reduction, recovery and destruction of fluorinated gases (CFCs) from systems containing them or replacement with environmentally friendlier gases (low GWP (Global Warming Potential)), (b) the reduction of energy consumption and consequently GHG emissions in buildings, processes, equipment and vehicles (not to be subsidised by other funds), (c) the reduction of waste production and rational waste management (e.g. on site waste separation and treatment facilities/circular business models); and (d) the utilisation of biomass / biofuels. The methodology of reimbursement of the grant for each beneficiary upon submission of evidence of implementation of action justified in the Action Plan in a given year, lies in the equation: Grant (€) = Emission reduction (tCO₂eq.) per action x Assumed Annual Emission Allocation price (40 €/t CO₂ eq.).

The absorption of funds will be regulated by annual calls that will accept applications and reimburse beneficiaries according to the available budget for the year. Beneficiaries will be able to claim reimbursement in an annual basis according to the implementation of their action plans. The absolute amount of money dedicated for each beneficiary will be agreed at an initial stage (with the success of their application during first part) and according to the emission reductions stated in their action plans (calculated by the equation presented above). During the first part of the Scheme, successful applicants will be reimbursed for the 50% of the cost of the documents submitted (max fund €15.000). During the second part of the Scheme successful applicants will claim the reimbursement by submitting the documents that prove the implementation of each action included in their action plan.

Finally, it is noted that, based on the expected number of applications, the contribution of the scheme to the Annual Emission Allocation national targets for the period 2021-2026 is estimated to reach 1,78%. The annual allocation of GHG emissions (Annual Emission Allocation, AEA) for the national targets of Cyprus for the period 2021-2026 has been defined in the Commission Implementing Decision (EU) 2020/2126 of 16 December 2020 on setting out the annual emission allocations of the Member States for the period from 2021 to 2030 pursuant to Regulation (EU) 2018/842 of the European Parliament and of the Council

As regards complementarity with other EU funds, further to the RRF funding tool, a proposal is under preparation for the JTF funding tool for requesting the amount of €20 mln targeting activities and actions covered under the EU ETS Directive. The proposal will be examined and evaluated accordingly. The RRF funding tool will contribute to the GHG emission reductions that are achieved with additional measures than those included in the NECP, for the reductions in the non-ETS sectors. In total, the utilisation of the RRF will target reductions of appx. 400.000 tCO₂eq while the JTF will target to achieve reduction of appx. 500.000 tCO₂eq. The reasoning of complementing the RRF proposal with a JTF proposal, therefore, is to extent GHG reduction additional activities to the ETS activities and actions that will contribute to the revision of 2030 target and will be part of the 2050 decarbonisation target.

Also, further to the above, a proposal is under evaluation for €10 mln from LIFE. This amount will contribute to the dissemination of GHG emission reduction information and the promotion of the Aid Scheme, as well as to establish a national verification body.

The design of the support scheme ensures that the financed investments respect the 'do no significant harm' principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call(s) for tenders of the scheme.

State Aid

The Aid Scheme falls under Section 7 of the Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty (GBER) and notified to the EU Commission on the basis of the Guidelines on State aid for environmental protection and energy.

Target population

The eligible beneficiaries are industries, businesses and organisations. Eligible funding regarding CO₂ emissions reductions is for those reductions that do not fall under the ETS legislation. Also, the support mechanism ensures the avoidance of double funding.

Timeline

Q4 2024: At least 130.000 tons of CO₂eq reduced due to support provided.

Q2 2026: At least 354.566 tons of CO₂eq reduced due to support provided.

• **Investment 5: Energy Efficiency Upgrading of Government Buildings**

- Fire Service Properties and Schools
- Nicosia General Hospital
- Installation of Grid connected Photovoltaic Energy Systems in Water Treatment Plants and water pumping stations

This investment focuses on the energy upgrading and increased energy efficiency of government buildings i.e. fire service properties, schools, the Nicosia General Hospital, water treatment plants and water pumping stations. Implementing energy efficient and renewable measures to increase cost savings and increase efficiency of government buildings in the short run and achieve Cyprus' climate targets in the long run shows a great degree of commitment to the green transition of our island, which this investment aims to be achieved via the installation of photovoltaic (PV) systems. The selection of the government buildings took into consideration the percentage contribution each of them had on the country's emissions i.e. water treatment plant and water pumping stations, the age of the existing infrastructure and associated problems i.e. for schools and fire service buildings and lastly, the need to a reliable and safe energy supply i.e. for the Nicosia General Hospital.

➤ **Fire Service Properties and Schools**

Challenges

While there is a broad consensus at the international level that there is considerable untapped economic and technical energy efficiency potential, the measures implemented with a view to an improvement in energy efficiency have not made it possible so far to stay on track to reach the targets set by the European Union. This is due in particular to various existing barriers. The energy and climate objectives present opportunities, benefits and advantages for the national economy, the energy system and civil society, in general, as well as the challenges that need to be overcome. In this context, by substituting fossil fuel-based heating installations in fire service properties and school buildings with solar energy, Cyprus will significantly make better use of its solar renewable energy and successfully address energy insufficiencies. The main objective of the development of the National Energy and Climate Plan is to design and plan the cost-effective policies and measures that will help to achieve the medium- and long-term national energy and climate goals, will contribute to the economic development of our country and will also respond to the challenge of other environmental goals.

Objectives

The main objectives set out are the:

- Achievement of national targets for reducing greenhouse gas emissions by increasing the participation of Renewable Energy Sources in Public School and Fire Service Properties energy consumption
- Enhancement of energy supply security
- Promotion of energy efficiency and renewable energy sources penetration
- Investment in energy efficiency of existing buildings through investments in energy storage systems
- Promotion of energy efficient cooling and heating systems
- Investments in infrastructure and incentives for RES use by the public sector specifically in Fire Service Properties and Public-School buildings reduce energy costs.
- Increase economic benefits through job creation and market development. Investing in energy efficiency can stimulate the local economy and encourage development of energy efficiency service markets
- Improved energy efficiency can provide an opportunity to introduce children to important energy and environmental issues
- Energy efficiency measures that improve the thermal, visual, and acoustic comfort of a school building can significantly improve student performance.

Implementation

The implementation of energy upgrades in regards to schools will be carried out by the MOECSY and the EAC (Electricity Authority of Cyprus), which have reached an agreement to furnish and install PV systems with a total load 4.9 MWp in 405 Public School Buildings which represent 55% of the schools. It is important to mention that PV panels are already installed in 114 Public schools. Therefore, by implementing this investment more than 70% of Cyprus Public School Buildings will use renewable energy sources to address their energy needs.

The PV systems will be installed on the roofs of public schools. It is estimated that 115.000m² of roofs will be insulated with thermal insulation systems and will be waterproofed prior to the

installation of photovoltaic systems. The whole project will be operated by the EAC on behalf of the MOECSY.

The implementation of energy upgrades in regard to Fire Service Properties will be undertaken in collaboration with the Department of Public Works of the Republic of Cyprus and the Electromechanical Service of Cyprus. These Departments will be responsible for the supervision, the tendering process that will be implemented in accordance to the official public procurement procedures.

The investment will cover all the 16 Urban Fire Stations in Cyprus, the Fire Brigade Headquarters, as well as two rural Fire Stations. The upgrade will include the installation of the following: photovoltaics, thermal insulation frames, masonry with insulation and LED type lamps.

The implementation of the proposed investment with regard to the energy upgrade of the Fire Service properties, does not entail complementarity of funding, since energy efficiency investments for the Fire Service Properties, are covered solely by the Recovery and Resilience Facility.

State Aid

Not applicable as the reform falls within the competence of the state and does not constitute economic activity

Target population

All pupils in pre-primary, primary, secondary and technical education, as well as teachers. Furthermore, these measures will improve the learning conditions of all people enrolling in life-long learning programs of studies. Additionally, urban fire stations, fire brigade headquarters and rural stations will also be targeted.

➤ **Nicosia General Hospital**

Challenges

The pandemic crisis has demonstrated the need to invest more in environmentally friendly technologies and leverage the climatological realities of Cyprus to invest in energy production that comes from nature as means of creating a positive impact in the efficiency and effectiveness of the hospital operation.

The crisis demonstrates the need for changes and improvements in the technologies used.

The energy upgrade of the Nicosia General Hospital and the investment in the photovoltaic solar panels is an investment towards this direction where a significant energy upgrade is planned to be promoted. This project concerns the installation of photovoltaics at the Nicosia General Hospital that will provide clean, green energy. During electricity generation with photovoltaic panels, there is no harmful greenhouse gas emissions thus solar photovoltaic is environmentally friendly. The proposal is one of the key initiatives of the State Health Services Organisation (SHSO) regarding the green transition of the hospitals. The following major changes will be promoted through the implementation of this project:

- Installation of solar photovoltaic systems.
- Produce electricity in a direct electricity generation way.
- Use of solar energy to cover both heating and cooling providing an effective solution to energy demand peaks – especially in hot summer months where energy demand is high.

Solar photovoltaic panels are one of the major renewable energy systems and the short payback period, makes solar energy panels an attractive green investment.

Objectives

The objectives are as follows:

- Energy upgrade of the Nicosia General Hospital and reduction of its mainstream energy consumption by 50%.
- Enhancement of the heating and cooling performance of the hospital in an environmentally friendly way.
- Reduction of greenhouse gas emissions and environmental degradation resulting from reduced energy demand from traditional electricity sources.
- To provide momentum for the expansion of solar generation facilities to the other hospitals of Cyprus, as well.

Implementation

This project will be undertaken by SHSO directly, by a team of technical experts who will undertake the procedure of reviewing technical specifications, the tendering, evaluation of tenders and finalisation of the project.

State Aid

Not applicable as the investment falls within the competence of the state and does not constitute economic activity.

Target population

Energy upgrades of this project concern the Nicosia General Hospital.

- **Installation of Grid connected Photovoltaic Energy Systems in Water Treatment Plants and water pumping stations**

Challenges

The Water Development Department (WDD) is considered one of the major consumers of electricity in Cyprus, due to the need for continuous operation of energy-intensive infrastructure (desalination plants, refineries, pumping stations). The installation of photovoltaic systems where possible in the WDD facilities will help reduce electricity costs (and as a result the water cost) while contributing to the protection of the environment. To this end, this project aims at the installation of grid connected photovoltaic energy systems of total power of 2 MWp in water treatment plants and water pumping stations, of total estimated cost of €1.800.000.

As regards the installation of the new photovoltaic energy systems in Water Treatment Plants, according to the net billing scheme of EAC, which the WDD is going to follow, the photovoltaic systems need to be installed on the roof of legally erected premises (or on the ground within the same plot and / or adjacent plots), which will be served by the photovoltaic systems. The WDD cannot erect photovoltaic systems in other areas, as in that case, it would have been considered as electricity producer. The intention of the WDD, is to produce electricity for the needs of its facilities.

Objectives

The main objectives from the project's implementation include the following:

- Environmental protection
- Reduction of greenhouse gases
- Reduction of energy costs

It should be noted that in relation to the measure under 2.3 the two projects have different goals. One concerns the upgrade of the facilities in order to optimise their operation and the other concerns energy savings. Combining the two projects would rather make them more complicated than providing any benefit.

Implementation

The implementation authority is the WDD which will undertake the feasibility study to determine the exact size and procedure of installation of the PV Systems through a tender from the private sector, will secure the approvals/licensing from the competent authorities CERA and EAC, will undertake the tender process for the acquisition of the PV Systems and any related services such as transport, storage and installation, and install the PV Systems and any related services. WDD will also engage one Electrical Engineer for a fixed-term period employment to monitor and manage the co-financing and the progress of the works.

State Aid

Not applicable as the investment falls within the competence of the state and does not constitute economic activity.

Target population

Water Development Department (WDD), Electricity Authority of Cyprus (EAC), Cyprus Energy Regulatory Authority (CERA) and Private Sector – Companies that specialised in PV Systems Installations.

Timeline

Q1 2022: Thermal insulation and photovoltaic systems installed in at least 405 schools

Q4 2023: Completion of set up and installation of photovoltaics system at the Nicosia General Hospital of total capacity of 943 KW.

Q4 2025: Completion of installation of photovoltaic systems, of a total capacity of 2.200KW, in water pump stations and fire stations.

- **Investment 6: Upgrading renewable energy and smart grids testing infrastructure at the University of Cyprus**

Challenges

RES represents currently around only 13% of energy production in Cyprus according to the Cyprus National Reform Programme completed in April 2020. Therefore, the energy production and consumption coming from heavy fuel oil and diesel from conventional power plants is essential to be shifted to RES, thus severely contributing to the reduction of CO₂ emissions. A need to invest in cleaner technologies, storage technologies and smart management which are going to make the energy production and consumption in Cyprus less pollutant and more efficient, exists. This, coupled with the nature of the electricity grid with Cyprus being an island without any interconnections and the increasing penetration of renewable energy sources, makes the shift towards smart grids a must. In this context, the lack of advanced renewable energy and smart grid capacities, as well as highly skilled personnel remains a significant challenge.

There is an urgent need, therefore, for Cyprus to develop its renewable energy and smart grids infrastructure and to shift towards clean energy, enabling technologies such as energy storage, smart meters and intelligent systems as well as energy efficiency in order to achieve the decarbonisation of its energy system. The creation of significant research capacity, highly skilled staff and the improvement of knowledge-intensive economic indicators of the country need to be tackled, along with academic excellence in all related areas and by educating the public in a new

realm of energy conscious citizens that can efficiently manage their energy needs and help to optimise cost and dramatically improve efficiency indices.

Objectives

In anticipation of the rapid expansion of the research activities in photovoltaics and smart grids, UCY has already commenced upgrading the facilities on campus, and is preparing for the expansion within the newly built School of Engineering, which will be completed in 2021. In addition, the University is in the process of installing a microgrid consisting of 10 MWp PV system, coupled with a 5MWh battery storage and intelligent controls, rendering it self-sufficient energy-wise and a world-class living lab for research in these technologies. The upgrading of the facilities with PV and smart grids diagnostics and testing infrastructure will form a major technological objective and will allow the University of Cyprus to achieve its long-term goals in this area. This will result in the establishment of UCY as one of the few research laboratory infrastructures in Europe with such state-of-the-art infrastructure. This firm backing places the photovoltaics group at UCY in a prime position to engage in leading research in the field, to attract further investment from the EU and interact further with internationally respected institutions.

The Investment “Upgrading renewable energy and smart grids testing infrastructure at the University of Cyprus” is not linked to any other reforms and investments on research and innovation in other parts of the plan. This investment is strongly linked to the challenges and objectives that Cyprus is called to address towards climate neutrality, energy efficiency and renewable energy penetration under this Component 2.1. The development of a state-of-the-art infrastructure in the field of renewable sources of energy and their seamless integration in the future smart grid will render Cyprus a beacon of knowledge in this field, it will enable the uptake of these technologies and will safeguard the integration of high-quality systems into the grid. Finally, the utilisation of the proposed infrastructure will enhance the competitiveness of the local industry and will also provide useful insights to important energy stakeholders such as policymakers, network operators and regulators.

Implementation

The specifications of the advanced infrastructure for testing of novel photovoltaic (PV) technologies, battery storage systems and enabling technologies for resilient smart grids that is targeted within the scope of the investment will be finalised at the beginning of the project. Although preliminary work has already been carried out, continuous monitoring of the technology advancements is crucial, in order to meet the state-of-the-art technological requirements of the test equipment when ordered and installed. Finalisation of specifications will be reached through consultation with partners, experts in the field, taking into consideration the above-described dynamic changes in the technologies. FOSS is currently an active member of DERlab (European Distributed Energy Resources Laboratories) and EERA Smart Grids (European Energy Research Alliance for Smart Grids), which are two leading entities in the field of Smart Grids and RES in Europe and will help steer the work in the right direction.

Subsequently, tenders will be invited from companies and the procedures outlined in the respective law covering the tenders’ procedures will be strictly adhered to. The University of Cyprus has extensive experience in dealing with such tenders and the implementation procedure is expected to run smoothly. The tenderers will be assessed based on price, technical specifications, quality and capabilities of the equipment.

Infrastructure upgrade will follow with the delivery, installation, testing, calibration, commissioning and acceptance of the equipment that is planned to take place during 2022 and 2023, followed by final infrastructure integration during 2024. Upon successful installation of the purchased equipment, personnel orientation and training will occur, thus establishing a critical mass of well-trained senior researchers and technical staff, capable to transfer knowledge and expertise gained to junior and/or new researchers in order to ensure continuous operation.

Last stages for the successful implementation of the proposed investment are the performance monitoring, and advanced development and evaluation. ISO1725 procedures will be implemented to ensure the quality and performance of the infrastructure and at least 10 SMEs, Research Centres and national stakeholders are targeted to use the testing facilities per year.

The UCY has a proven administrative capacity for implementing the investment as it runs several similar projects with great experience in managing this scale of building projects. At the moment, it is managing, amongst others, the construction of the new UCY campus, including the School of Engineering, where the Renewable Energy and Smart Grids Testing Infrastructure will be hosted. The new UCY campus construction project is an indicative large-scale example with a total cost of €264.000.000 financed by the European Investment Bank.

The investment will consist predominantly of a solar simulator, climatic chamber, grid simulator, battery testing equipment as well as real time hardware in the loop systems.

State Aid

Any energy generated will be used for own consumption, and therefore this does not entail any state aid issues, since the University of Cyprus does not carry out economic activities.

Target population

The work being carried out at UCY will provide significant opportunities for the utilisation of the infrastructure, either by the local industry, SMEs or other spin-off companies expected to arise from the exploitation of new PV technologies, battery storage systems and enabling technologies for resilient smart grids, which will help them enhance their competitiveness. The infrastructure will also offer further services to international companies, such as assessing new concepts, providing quality assurance and undertaking standardised testing for new products and solutions.

Timeline

The implementation period is estimated to be 33 months. The project is planned to start in Q4 2021 with the finalisation of specifications and beginning of tendering procedures. Infrastructure upgrade will follow with the delivery, installation, testing, calibration, commissioning and acceptance of the purchased equipment, followed by personnel orientation and training. The project will be completed after successful final infrastructure integration, performance monitoring, and advanced development and evaluation by the Q2 2024.

Q4 2022: Signature of contract for the installation of equipment to upgrade the electricity grid into a smart grid.

Q2 2024: Delivery, successful installation, testing, calibration, commissioning and acceptance of the equipment for smart grids, followed by final infrastructure integration.

- **Investment 7: Mass installation and operation by the Distribution System Operator (DSO) of Smart Metering Infrastructure (Advanced Metering Infrastructure)**

Challenges

Smart meters facilitate the optimisation and control of the distribution system, increase the penetration of distributed renewable sources, enable aggregation of RES, demand response and storage and increase direct final customer participation in all market stages (active customers). Furthermore, the use of smart meters will allow the creation of the necessary conditions to strengthen the role of citizens as consumers. Additionally, such digital solutions could enable behavioural change and enable more energy efficient behaviours. Other challenges that will be faced are related to:

- Increase system observability, monitoring, data recovery, electrical energy and power measurements,

- Increase the accuracy of load and demand forecasting,
- Improve system analysis,
- Enable load and demand management,
- Optimisation of the and in effect the optimisation of the operation of the Distribution System,
- Advanced Metering Infrastructure (AMI) aids at managing EV Charging, PV System management and generation monitoring,
- Optimisation of RES generation forecasting,
- Maximisation of RES penetration,
- Remote DSO operations (connections/ disconnections, meter reading),
- Reduction of non-technical losses.

Objectives

To fund part of the consumers' cost of the installation of 400.000 smart meters by 2026. According to Annex II of the Directive (EU) 944/2019, at least 80% of the final customers within seven years of the date of the positive assessment of smart meter deployment, should be equipped with a smart meter. The aim is to fund a percentage of the total cost that will be passed to final customers. The measure will be implemented based on the Regulatory Decision 02/2018 on the Implementation of a Binding Schedule for the Mass Installation and Operation by the DSO of AMI.

It is a measure that is included in the NECP to meet part of the cumulative amount of end-use energy savings for the period 2021 - 2030 and as a measure to increase the flexibility of the energy system regarding renewable energy production.

Implementation

The funds will be managed centrally by the DSO/EAC to speed up the project implementation period and cover the portion of the costs that would otherwise be passed to final customers.

DSO is in the process of issuing a Tender for the mass roll-out of smart meters in Cyprus. According to the timeframe of the Tender, the installation of 400.000 smart meters should be finished by 2026, in order for the DSO to be in line with the EU Directive 2019/944.

For the preparation of the Tender, DSO received services from a European consultant firm, which on one hand caused some delays but on the other hand it helped the DSO to identify and specify the best possible solution. This delay, does not, however, change the completion of the project. Due to this delay the revised programme calls for the installation of 100.000 meters per year starting from 2022.

State Aid

Transmission and Distribution of Energy in Cyprus is by Law a monopoly and the sole responsible authority is Electricity of Cyprus (EAC). Moreover, DSO of EAC is a neutral market facilitator and a catalyst regarding the implementation of new technology such as, for example, smart grids, which shall provide effective services to all market participants (producers, suppliers, consumers and prosumers) via smart infrastructure and technologies, thus enabling transparent, impartial, fair and non-discriminatory access to the network. Therefore, since Transmission and Distribution of energy in Cyprus is a monopoly market then there is no issue of distorting competition in the internal market. Since the measure is not limited to energy efficiency, article 48 of GBER will be applied.

Target population

All final electricity customers, including natural and legal persons.

Timeline

This investment includes one (1) milestone and two (2) targets:

Q1 2022: Contract Signature for smart electricity metering infrastructure (Hardware, software and support & other services).

Q3 2024: Acceptance of delivery of at least 200.000 smart meters, which represents approximately 50% of the total smart meters to be delivered.

Q2 2026: Acceptance of delivery and installation of 400.000 smart meters.

• **Investment 8: Monitoring and reduction of GHG emissions in agriculture**

Challenges

Europe is facing significant challenges in curbing greenhouse gas (GHGs) emissions and ensure food security in a climate changing environment. Although agriculture is affected by climate change, it is also a driver of climate change itself. The agricultural sector accounts for 10% of the European Union (EU) total GHG emissions in 2019 (EEA 2019).

Crop cultivation, soil management, and livestock activities are responsible for non-CO2 GHGs emissions in the form of nitrous oxide (N2O) and methane (CH4). The EU energy and climate framework policy for the period 2021-2030 aims to reduce GHG emissions by at least 40% below 1990 levels (EEA 2019).

Sectors that are not included in the EU emissions trading system (ETS) like agriculture, will need to reduce the emissions by 30% (for Cyprus 24%) compared with those calculated during 2005.

For Cyprus it is imperative that the agricultural sector is integrated into the EU 2030 policy framework for climate and energy for assessing and implementing climate change mitigation and adaptation potentials.

So far, in Cyprus the emissions in the agricultural sector are calculated based on the adoption of the default values of Tier I and particularly for soil, either N2O or CH4 direct emissions are not monitored. The N2O is emitted directly from managed agricultural soils, mainly due to the use of synthetic and organic nitrogen fertilizers and accounts for 31% of the overall emissions at EU level.

Indirect emissions of N2O are also noticed due to NH3 volatilisation and N leaching which is accounted to the 7% of the total non-CO2 emissions at EU level but the situation for Cyprus is unknown.

The main aim of this investment is the establishment of a GHG monitoring system for agriculture and based on this facility to implement integrated and scientific sound policies to mitigate GHG. In detail, in Cyprus the emissions in the agricultural sector are calculated based on the adoption of the default values of Tier I and particularly for soil, neither N2O nor CH4 direct emissions are monitored. There is an urgent need to monitor the GHG emissions from agricultural for the following reasons:

1. To provide accurate emission data from the agricultural sector through the National Inventory System of the country
2. To develop and implement policies based on accurate and real data

3. To evaluate the policy measures that are or will be implemented in the Agricultural Sector for the mitigation of GHG

Objectives

The proposed investment is expected to provide fundamental and critical information to the Department of Environment that are essential for reporting the GHG emission in Cyprus. Moreover, the activities of the investment will provide specific modelling solutions for estimating the GHG mitigation potentials that will help policy makers to adopt and implement more efficient mitigation practices. Farmers, food processing industries, farmers' associations, advisory agencies specialised in the agricultural sector, and policy makers in the Department of Agriculture will be provided with policy strategies and tools able to reduce GHG emissions.

The main objectives of this investment are the following:

1. Create a National monitoring unit for monitoring for greenhouse gas emissions from agriculture in Cyprus.
2. Calculate National Emission Factors for soil direct N₂O and CH₄ emissions and re-orient the contribution of the main crops of the country on non-GHG emissions.
3. Develop practical protocols / measures for farmers and other stakeholders that integrate mitigation measures for reduced non-CO₂ GHG emissions without reducing the systems productivity.
4. Determine the potential of changes in livestock and manure management on reducing CH₄, N₂O and NH₃ emissions.
5. Map Cyprus soils for their genetic capacity to emit N₂O and CH₄ using already established methodologies and infrastructure and provide stakeholder with scientific based data for policy reform.

Implementation

The main body of the investment is the establishment of the infrastructure for monitoring non-CO₂ GHG in the main Experimental Stations of Agricultural Research Institute and the establishment of an automobile GHG monitoring facility and the peripheral lab infrastructures of the facility.

During Year1 to Year 3 all the infrastructures will be established and calibrated. The new personnel will be recruited during Year1 and Year2 and until the end of the funding period. From Year2 till the end of the investment the Facility will deliver all the data, studies, protocols and policy tools to the stakeholders. During the 4th year of the Investment a draft set of policy recommendations will be available and until the end of the Investment.

State Aid

The investment covers research activities and other activities that will be implemented by the Agricultural Research Institute, which are not considered economic activities. Financing these activities, therefore, does not constitute state, even though the Institute could conduct other economic activities, not covered by the Recovery and Resilience Facility.

Target Population

This investment will be addressed to local farmers and other stakeholders engaging in agriculture practices.

Timeline

This investment includes one (1) milestone and one (1) target:

Q2 2023: Purchase and installation of automobile unit and permanent monitoring units, for measuring GHG emissions from agriculture.

Q4 2025: Achieve a 10% reduction of GHG emissions from agriculture

- **Investment 9: Forest Fires Protection**

Challenges

Cyprus is characterised by a Mediterranean climate dominated by mild, rainy winters and a prolonged, hot dry period often extending from May to October, i.e., 6 months. These conditions, combined with the flammable vegetation predominating Cyprus Mountains, the very rugged topography in forest areas and increasing abandonment of rural areas render Cyprus' natural landscapes extremely vulnerable to forest fires which cause losses in human lives, properties, and in valuable ecosystems and landscapes. According to the 2018 "National Risk Assessment of the Republic of Cyprus" forest fires have the highest risk level, compared with six other hazards like earthquakes, SLR/coastal erosion, floods etc.

In this context, national authorities recognise that more frequent and intense fire incidences are expected. Therefore, the competent authorities and particularly the Department of Forests (DF) must upgrade their capabilities to cope with increased future fire hazards.

Objectives

It is considered of utmost importance that national authorities minimise the risk of forest fires within or near the Cyprus State Forests and enable faster and more effectively intervention of the fire fighting forces, and hence reduce the possibility of small forest fires growing big and threaten the forests with partial or complete destruction. Equally important is to enhance citizens' safety, protect their property and preserve the natural environment from the forest fires.

To this end, the proposed investment involves the purchase of firefighting aircraft, vehicles, equipment and provision of the following services:

- firefighting operations and pilot training
- silvicultural practices
- services for 3 unmanned aerial vehicle (UAV) - drones

The proposed investment covers the hire purchase of a single-engine firefighting aircraft (Single Engine Air Tanker), with a capacity of > 3,000 litres, to deal with forest fires. The need for reinforcing the Department of Forests with the specific type of aircraft has been highlighted in the reports of the Technical Committee set up to study the needs of the Republic in flying firefighting equipment.

Expected results and contribution to the objectives are the adaptation to climate change, the reduction of the risk of explosion and expansion of forest fire and the strengthening protection against the risks faced by citizens, infrastructure and forests from a possible fire incident.

Implementation

Public procurement procedures for goods and services determined by the "Regulating Procurement Procedures and Related Issues Law of 2016, N73 (I) / 2016" will be utilised for the supply of the following vehicles, machinery and equipment:

- 75 transport vehicles for patrol purposes for forest protection and transfer of staff in fire incidents
- 12 large fire trucks

- 25 emergency firefighting vehicles 4 bulldozers of horsepower over 90 Kw for the construction of fire protection works and with the possibility of transport by truck type 8x4 for rapid transport to fires
- 4 ground bulldozers of more than 150 Kw for the construction of fire protection works (fire lanes, access roads, etc.)
- 6 agricultural tractors of about 70 Kw or more equipped with the necessary tools (harrow, lawn mower, etc.) for the implementation of fire prevention measures
- 4-wheel excavators / loaders
- 6 Branch Shredders
- 4 Loaders (trucks) and
- 6 20 tone Tankers for fire protection purposes
- 1 firefighting aircraft under a hire purchase agreement and other services to be provided

The proposed investment will also provide for the followings:

- installation of supply system in new a new firefighting air base
- Installation of the Telecommunication System TETRA
- purchase of services for 3 unmanned aerial vehicle (UAV) - drones
- purchase of services for training of staff for "Fire causes investigation"
- services provided by the supplier for four years firefighting operations and pilot training
- services provided for the creation of a fire protection ring around the communities and forests in 1.587,3 ha of land
- hiring a temporary staff as a Fire Protection Project Manager for 4,5 years

As regards the purchase of the aircraft, the Department of Forests intends to issue a call for Tenders for the procurement of the above service, the Contractor will transport a new aircraft to Cyprus, which will be the property of the Department of Forests. The plane will be fully operational from the first day of its transfer to Cyprus. Along with the plane, the Contractor will transport to Cyprus a project team, which will consist of pilots and engineers. The Department of Forests will have the opportunity to train its pilots in air firefighting operations, through their participation in the above program, as the contractual obligations of the Contractor will include the provision of training to the pilots of the Department of Forests (on the job training) which will be completed by the end of 2026.

The proposed contractual arrangement will ensure that the department will a fully operational aircraft from the first day of the contract which will be followed by a transitional period of approximately four years during which Forest Department operators will have the opportunity to be adequately trained in firefighting operations and gain experience. Also, flight safety will be at a high level as the staff of the Forest Department will have the opportunity to interact with the very well trained and experienced staff of the Contractor.

Upon its arrival in Cyprus, the aircraft will be incorporated in the category of primary firefighting equipment available to the Republic, i.e. it will be used for quick dispatch and direct attack of fires in the critical early stages of their development where they have limited size and intensity. Depending on the daily readiness, the response time of the plane will range from 5 to 13 minutes, as is the case with the planes of the Forest Department.

This type also has exceptional flexibility, high speed ability to go to the fire area and at the same time low speed capability (compared to other larger firefighting aircraft) at the time of shooting which helps it to operate in steep areas and in mountainous areas with difficult terrain. as is the case in most of the forest areas of Cyprus.

In addition, the ability to mix the water it carries with foam and fire-retardant fluids significantly increases its efficiency (this feature is absent from firefighting helicopters and several other types of aircraft).

State Aid

The investment falls within the competence of the state. It does not constitute economic activity and therefore there is no question of state aid.

Target population

Personnel of the Department of Forests, Flight Unit of the Department of Forests personnel and private landowners (Local Authorities).

Timeline

Q2 2022: Signing of the Agreements/ Contracts Signatures with suppliers for the purchase of firefighting aircraft, vehicles, equipment and provision of services

Q4 2023: Delivery and acceptance of firefighting aircraft, vehicles and equipment

Q4 2025: Completion of the following services: 1. firefighting operations and pilot training, 2. silvicultural practices, 3. services for 3 unmanned aerial vehicle (UAV) – drones

- **Investment 10: Market Management System to facilitate the opening of the electricity market to competition**

Challenges

Cyprus lags most EU Member States in terms of maintaining adequate levels of competition in the electricity market. A significant challenge therefore is the introduction of an appropriate model that will allow the participation of independent suppliers and generators and the reform of the key stakeholders, such as the Electricity Authority of Cyprus and the Cyprus Transmission System Operator.

In this context the introduction of a Market Management System by the TSOC (who is also the Market Operator) and of a Meter Data Management System by the DSO are considered of utmost importance. The main obstacle regarding the implementation of these investments relates to the delays in drafting the tender documents for the procurement of the appropriate Market Management System and the actual award of the contract to the successful bidder following the tendering procedure. The process lasted appr. 2.5 years (1/3/2018-9/4/2020). The TSOC attributed delays due to issues out of its control, mainly staffing and public tender procedures. The tender documents were published first on 1/3/2018. Only one offer was received which although had passed the technical evaluation, had an economic offer which exceeded by far the budget of the tender, and as a result was rejected. Tender documents were published again on 2/4/2019 and the Contract was signed on 9/4/2020.

Objectives

Following the amendment of the Trade and Settlement Rules according to the EU Target Model and the introduction of a Meter Data Management System which is being implemented by the DSO, the specific investment aims at the introduction of a Market Management System by the TSOC (who is also the Market Operator).

Implementation

The Market Management System (MMS) comprises both hardware and software systems and will be based on the market framework as approved by Cyprus Energy Regulatory Authority (CERA) and the Trading and Settlement Rules (TSR) version 2.0.0 and its amendments. The project, which is implemented by TSOC, includes all necessary hardware, software, licenses, and services

required for the detailed design, implementation, customisation, installation, commissioning and any other service needed to procure the MMS system. The project also includes the integration of the MMS with the existing infrastructure of TSOC.

The software is based on a commercial product owned by the contractor, which is being customised in order to fulfil the requirements of the Cyprus Electricity Market, as described in the Transmission and Settlement Rules. This customisation is currently being developed through a very tedious detailed design process.

The software and hardware will be delivered at the premises of the Transmission System Operator – Cyprus before the Site Acceptance Test phase of the project implementation. During this phase the software and hardware will go through a complete testing process to ensure that all the requirements are met. Testing will continue until the opening of the competitive electricity market (Go-live date) which is currently set at 21/03/2022 and payment one month after. The completion date of the project is five years after the Go-Live date as it includes 2 years warranty and 3 years maintenance period, so it is expected in March 2026.

State Aid

National authorities will safeguard that no direct or indirect aid to the EAC will be provided with respect to the organisation's economic activities.

Target population

Natural persons as electricity customers, consumers and active consumers, Legal persons as electricity customers, consumers as well as activated in the generation of electricity for own consumption, Legal persons (for-profit e.g. market participants and non-for-profit e.g. Energy Communities) - Population benefit: country-wide social and economic benefit - Population in persons: 0,9 mln according to EUROSTAT 1.1.2019.

Timeline

TSOC, published the tender procedure on 2/4/2019. Four companies participated in the process. The contract was successfully awarded on 17/2/2020 to Grid Solutions SAS, a subsidiary company of General Electric (GE). The contract was signed on 9/4/2020 and has a target completion for October 2021. The project carries currently a 5-month delay attributed to complexity and Covid-19 related issues. As a result, it is anticipated that the actual market go live date will be March 2022.

Q1 2023: Completion, installation and roll-out of the Market Management System for the Cyprus Electricity Market and training of [100%] of personnel of the Transmission System Operator on the rolled-out information system and related operational procedures.

- **Investment 11: Ending energy isolation-Project of Common Interest "EuroAsia Interconnector"**

Challenges

Cyprus is still lagging behind in meeting the EU targets in greenhouse gas emissions and share of renewable energy, compared to the EU average. In addition, electricity prices in Cyprus are among the highest in the EU for both household and non-household use. Cyprus is also the only energy isolated Member State and therefore vulnerable to energy supply and price shocks. In this context, interconnections play a crucial role in the Internal Energy Market in Europe, which seeks to integrate EU Member States' markets into a single market and achieve the minimum level of interconnection of 15% of the installed capacity. More electricity interconnections in the region are needed in order to lower the environmental impact as a result of the phaseout of fossil-fuel power plants and the reduction of CO2 emissions. Such interconnectors can increase the capacity of integrating renewable energy (on average 38 - 46 GWh/year according to European Network

of Electricity Transmission System Operators' (ENTSO -E) 2030 scenarios). This is important for Cyprus, and the EU, taking into consideration the untapped potential for production of renewable energy in Cyprus.

Objectives

A possible connection of Cyprus's electricity network to the EU continental system, could enable the import of electricity from cheaper and cleaner sources, while promoting the generation of electricity from renewable sources that could be exported to its neighbouring countries when in abundance due to their intermittent nature.

The proposed investment supports the overall onshore and nearshore infrastructure of the electricity Interconnection "EuroAsia Interconnector " in the territory of Cyprus. "EuroAsia Interconnector" is a cross border interconnector between Crete, Cypriot, and Israeli power grids via a subsea DC cable and with HVDC onshore converter stations at each connection point. The project is an energy highway bridging Asia and Europe, with a total length of 1,208 km. It creates a reliable alternative route for the transfer of electric energy to and from Europe. The proposed investment aims to enable the completion and commissioning of the PCI 3.10.2 Interconnection between Cyprus and Greece (Crete). PCI 3.10.2 consists of a DC 1000 MW converter station in Cyprus and related infrastructure in Cyprus and Crete, connected through 898 km of HVDC submarine cables with 1.000 MW capacity. The project is included in Cyprus's National Ten-Year Development Plan (TYNDP) as well as in ENTSO-e's TYNDP. It is also included in the fourth list of Projects of Common Interest (PCI) as approved by the Member States in 2019. The project is intrinsically related to the implementation of Cyprus's National Energy and Climate Plan (NECP) and it is explicitly mentioned therein. The project will lift Cyprus's energy isolation and will connect its electricity network to the EU continental network (this being one of the key TEN-E Regulation objectives and PCI criteria). This will allow energy imports / exports and trading, ensuring security of supply and rendering the wholesale electricity prices lower and more competitive. Thus, the project will contribute to the decrease in non-household electricity prices in Cyprus, reducing operating costs for industrial units and boosting SMEs growth and entrepreneurship.

Furthermore, the project will enable the electricity generation from renewable energy sources. According to the NECP, the project will create new market mechanisms with the introduction of a cross-border intraday market trading up to one hour before delivery creating a flexible and competitive energy market in Cyprus. Having the right market mechanisms in place will allow for faster penetration of renewable energy sources, enabling Cyprus achieve its RES targets set out in its NECP (i.e., (i) 21% reduction of greenhouse gas emissions compared to 2005 and (ii) 23% renewable energy source penetration into gross final energy consumption. This includes 26% renewable energy in gross electricity consumption, 39% in heating and cooling, and 14% in transport. Moreover, it will ensure the security of energy supply both of the relevant Member States and of the EU in general (key PCI criterion), through the integration of the isolated small systems of Cyprus and Crete with the Israeli and European networks and the uninterrupted - multidirectional flow of energy.

The Project Promoter has already received funding from the Connecting Europe Facility (CEF) for the implementation of "Action 1" - "EuroAsia Interconnector - Design, Implementation and Environmental Studies" and "Action 2" - "EuroAsia Interconnector - Final Detailed Studies Prior to Project Implementation" which is in progress and will be completed by the end of 2021.

The overall cost of PCI 3.10.2 is €1.575 mln (+/- 5%). According to the Cross-Border Cost Allocation (CBCA) decision, an amount of €788 mln (50% of the eligible cost covered in the CBCA) is expected to be received from CEF in the context of the PCI regulation.

The amount of RRF to be allocated for the project, along with CEF grants will constitute the overall amount that will be provided in the form of grants (i.e. 50% of the overall cost). According

the Financing Plan of the Project Promoter, which has been developed by PwC, the rest of the 50% of the CAPEX will be covered by the EIB 25%, Commercial Loans 10% and Equity 15%. Provided that the project secures the necessary funding from the CEF and the required financing by EIB and/or other financing institutions, a grant of €100 mln will be allocated to the Project Promoter, obtained as a loan facility under the RRF.

Implementation

In accordance with Article 2(6) of Regulation 347/2013 ("TEN-E Regulation") the Project Promoter of the PCI 3.10.2 is the "EuroAsia Interconnector Limited", which has been approved by the European Commission as of 2013, when the project first applied for and obtained the PCI status.

Concerning the implementation stages, most of the necessary studies have already been completed (i.e. the Cost Benefit Analysis, the Business Plan & the Financing scheme and the Cross-Border Cost Allocation Proposal).

The Project Promoter has executed all necessary studies and consultations for the Cyprus Israel link and Crete, as part of the overall EuroAsia Interconnector project (3.10). The Project Promoter along with his technical consultants, is in close co-operation with the TSO in Greece (and Cyprus) for assuring interoperability of the two systems. The cooperation for the implementation of the project has been enhanced following the recent signing of an MOU between the Governments of Israel, Cyprus and Greece. The procurement procedure is progressing well, and the tendering step is expected to be concluded by June 2021.

It is further noted that in the DNSH assessment there is explicit reference to the terms and conditions of the EIA that will have to be adhered to. An EIA assessment was completed for the interconnector. Biodiversity issues (for the marine environment) were assessed and mitigating measures / monitoring were incorporated in the final permit. Water resources were also assessed, but this measure had no significant impact on water resources.

State Aid

The financial support with respect to the specific investment, will be submitted to the European Commission for approval under the Communication from the Commission - Criteria for the analysis of compatibility with the internal market for State aid to promote the implementation of major projects of common European interest (2014 / C 188/02).

Target population

The project will not only be beneficial for enterprises and consumers in Cyprus and Greece but also for the EU at large.

Timeline

Q4 2022: Start of the construction works of the HVDC Converter Station in Kofinou and the onshore infrastructure in Cyprus following the securing of relevant funding sources outside of the RRF.

Q4 2024: Completion of construction of converter station including installation of high-voltage and control-equipment.

Q4 2025: Completed and fully operational facility of the electricity interconnection between Cyprus-Crete (Greece) to: (1) end the energy isolation of Cyprus as an EU member state and (2) ensure the security of energy supply (3) achieve national climate targets as specified in the National Climate Plan.

2.4 Open strategic autonomy and security issues

All reforms and investments included in the national Resilience and Recovery Plan that promote investments in Energy Efficiency and Renewable Energy, as well as the reform for energy storage and the investment for “EuroAsia Interconnector” (that will assist in increasing renewable energy generation and consumption in Cyprus and Greece and thus in the Member States) will contribute to ending energy isolation, increasing the flexibility of the national energy system, ensuring the security of energy supply and diversifying the national energy mix. The importance of these measures for increasing energy autonomy and energy security, is also described in the National Energy and Climate Plan.

2.5 Cross border and multi-country projects

The electricity interconnection “EuroAsia Interconnector” is a cluster Project of Common Interest (PCI) no. 3.10 consisting of the PCI no. 3.10.1 - Interconnection between Israel and Cyprus and the PCI no. 3.10.2 - Interconnection between Cyprus and Greece (Crete). Related to the interconnection between Cyprus and Greece, the Cyprus Energy Regulatory Authority (RAEK) and the Regulatory Authority of Greece (RAE) have signed a Cross-Border Cost-Allocation Agreement, following the investment request submitted by the Project Promoter. According to this Agreement, the 37% of the PCI no. 3.10.2 is allocated to Greece and the 63% to Cyprus, in proportion to the benefits occurring to each member state, assuming the award of 50% grants. Cyprus and Greece are in close cooperation in an effort to facilitate the timely permit granting necessary for carrying out feasibility studies on the technical and economic level but also for construction works and the coordination between the Greek and Cypriot Electricity Transmission System Operators (TSO), in accordance with each member state’s laws, regulations, standards and procedures. Consequently, reporting, milestones/targets and disbursements are clearly divided between Cyprus and Greece to avoid overlaps and delays in assessment and implementation.

2.6 Green dimension of the component

All investments included in the component contribute to the achievement of the national energy efficiency and renewable energy target of 2030, since they have been included as planned policies and measures in the NECP and comply with the “do no significant harm principle” under the “EU Sustainable Finance Taxonomy Regulation”. More information on the contribution of each measure is given in the description of each investment above.

Green taxation (reform 1) entails shifting towards more efficient use of the economy’s resources for environmentally sustainable development and the increase in the penetration of renewable energy. The reform’s impact is not assessed yet, as the necessary measures will be defined at a later stage. Nevertheless, this reform will significantly contribute to the reduction of greenhouse emissions and waste generation, as well as to water savings. Green taxation is considered of utmost importance, since the introduction of carbon tax for fuels aims to reduce transport sector CO2 emissions, which constitutes one of the major contributors to climate change.

As regards the electricity market initiative (reform 2), it is expected that the functioning of the competitive electricity market will facilitate the activation of independent generators of renewable energy, of aggregated demand response, storage facilities, high efficiency cogeneration, active consumers and energy communities in both the energy and balancing markets. As a result, the percentage of renewable energy consumed will be increased and the energy efficiency of the electricity system will be improved by reducing the grid losses

The establishment of Digital One-Stop Shops (reform 3), aims to enhance the uptake of energy renovations and the RES investments, significantly contributing thus to the achievement of the national energy targets. The project aims to integrate the fragmented building renovation and RES market and provide the market conditions that will allow and motivate households,

businesses and investors undertake such investments. The specific reform falls under the Government ICT solutions, e-services, applications compliant with GHG emission reduction of energy efficiency criteria.

The proposed reform on energy storage regulatory framework (reform 4) will enable the necessary investment which will contribute to achieving the national renewable energy target of 2030 as well as the indicative target for primary energy consumption in 2030. Implementing the proposed action will reduce CO₂ emissions by reducing the curtailment level, increasing climate neutrality, and reaching the 2030 energy and climate targets set by the NECP. Additionally, the reform will enable investments in green storage technologies. Additionally, the project will emphasise the promotion of green storage technologies and set the appropriate recycling rules in the Tender procedures to help achieve the principle of "do no significant harm."

Investments 1-3 aim to encourage the uptake in relation to energy efficiency and the use of RES. Energy efficiency criteria (minimum primary energy savings) will be met under the RRP schemes promoting renewables and energy efficiency measures in dwellings, enterprises, as well as in public and local administration buildings.

As regards the "Support scheme (grants) for promoting energy efficiency investments in Small and Medium Enterprises (SMEs)" (investment 1) the scheme will finance investments that will achieve more than 30% primary energy savings to qualify. This will be controlled through scheme's provisions. Regarding biomass boilers, as indicated in the DNSH Report supporting the RRP, before issuing the scheme, it will be ensured that such investments will not lead to a significant increase in the emissions of pollutants into air. If this cannot be controlled or confirmed, they will be excluded from eligible investments. This will be clarified in collaboration with the relevant authority/ies (the consultation with the relevant authority/ies will take place before issuing the scheme). Regarding the purchasing of new vehicles (passenger cars and light commercial vehicles) "with low CO₂ emissions", it must be noted that the aim of the investment is to subsidise hybrid/electric vehicles. A consultation with the relevant authority will be held before issuing the scheme, in order to comply with DNSH. This expenditure may not be eligible at the final scheme, if covered by other schemes.

The promotion of renewables and individual energy efficiency measures (investment 2) will result on average primary energy savings of at least 30%, whereas, as regards the energy poverty in households the measures will be compliant with the energy efficiency criteria for a medium-depth renovation (at least 30% primary energy savings), as set out in the Commission Recommendation on Building Renovation (EU) 2019/786.

The support scheme for the encouragement of the use of renewables and energy savings by local authorities as well as NGOs (investment 3) aims to promote the use of RES and energy savings by the large stock of old infrastructure used by local authorities, contributing thus to the achievement of the national renewable energy and energy efficiency targets, and specifically. The transition towards a climate-neutral economy must happen in a fair way, eliminating any social exclusion. One of the main objectives of the investment 2 is to empower the social integration of the vulnerable consumers and support Just Transition. The investment will strengthen economically, socially and environmentally households with disabled people. The investment is aligned with the European Green Deal and fosters the use of sustainable solutions (energy efficiency, clean energy), mitigate climate change challenges and supports the Just Transition. Furthermore, will contribute to achieve the national and climate targets defined in the NECP.

Similarly, the local communities in energy transition and climate adaptation initiative (see investment 3) are strongly related with Europe's Green Deal, the Europe's and National's Climate and Energy Policies. It is also directly linked with the voluntary commitments of local authorities of Cyprus towards sustainability and their participation in the Covenant of Mayors, the world's largest movement for local climate and energy actions. The proposal and the SECAPs emphasise

on the establishment of a long-lasting strategy (2020-2030) at local level to enhance sustainability.

It is important to note that the Investment 3 is compliant with DNSH principle which has been in depth evaluated (especially for the grant scheme aim to support the utilisation of local wood resources originating from forest management (maintenance, afforestation etc.), agriculture activities and green residues from street trees and public parks maintenance, replacing fossil fuels for water and space heating needs).

Investment 4, “Reduction of CO₂ emissions in industries, businesses and organisations” aims to encourage beneficiaries to prepare action plans to reduce greenhouse gas emissions in their operations and/ or supply chains and implement investments that will facilitate decarbonisation, contributing therefore towards the national greenhouse gas reduction target (24%).

The energy upgrade of public buildings (investment 5) (Fire Service properties, schools, hospitals and water treatments facilities) Regarding the energy upgrade of Fire Service properties, the climate contribution is based on the basis of the analysis undertaken for the implementation of similar measures in the past, in other Fire Service properties, confirming that in this case the resulting primary energy saving can exceed 30%. Concerning School Energy Efficiency Upgrading through the installation of photovoltaic panels and thermal installation, the energy efficiency criterion will be met as the measure is expected to result to at least 30% energy saving on primary consumption by the schools supported, on average. As regards the installation of grid connected photovoltaic energy systems in water treatment plants and water pumping stations the project will contribute to environmental protection and reduction of greenhouse gases. In all construction works, energy savings will be set as a precondition/term in the relevant Call.

Furthermore, investment 6 “Upgrading renewable energy and smart grids testing infrastructure at the University of Cyprus” contributes principally (100%) on the green energy transition objectives. Developing additional renewable generation capacities is a centrepiece of the European Green Deal, and of the decarbonisation of the energy system necessary for reaching increased 2030 greenhouse gas reduction targets and climate-neutrality by 2050. The new advanced testing technologies at the UCY are fully aligned with the climate change mitigation and climate change adaptation objectives of the Regulation (EU) 2020/852 (“EU Taxonomy Regulation”). The proposed project fully complies with the “do no significant harm principle” under the “EU Sustainable Finance Taxonomy Regulation” as the infrastructure upgrade will not cause any significant harm to the remaining four environmental objectives of the “EU Taxonomy Regulation.”. The scope of the project is also very well aligned with the national priorities and action plans of Cyprus outlined within the Integrated National Energy and Climate Plan (NECP) completed in January 2020, as well as the Smart Specialisation Strategy for Cyprus (S3Cy) which has Energy, and in particular Solar Energy, as its top thematic priority. In particular, the proposal addresses sectors identified as of prime importance in the S3Cy such as RES and their innovative applications, solar energy with a focus on PV, energy storage, energy efficiency, energy saving, as well as distributed generation and grid integration issues.

Under investment 7 regarding mass installation and operation by the Distribution System Operator (DSO) of Smart Metering Infrastructure, smart meters will allow the adoption of dynamic tariffs, therefore enabling consumers to adjust their consumption according to real-time price signals that reflect the value and cost of electricity. This will lead to a closer matching between generation and consumption curves (consumers will adopt their consumption based on the price signals), therefore facilitating a higher share of intermittent RES generation. Similarly, smart meters are necessary for the effective participation of final consumers in all forms of demand response. Demand response is key to allowing the smart charging of electric vehicles and thereby enabling the effective incorporation of electric vehicles into the power grid, which is critical for the decarbonisation of the transport sector. They will increase the participation of final consumers to Energy Communities, whose focus is on providing affordable renewable energy to

their members and stakeholders, rather than on profit making. According to par. (43) of the preamble of the Directive (EU) 2019/944, “Where they have been successfully operated such initiatives have delivered economic, social and environmental benefits to the community that go beyond the mere benefits derived from the provision of energy services”.

Monitoring and reduction of GHG emissions in agriculture (investment 8) will contribute to the climate objectives by establishing a GHG monitoring system for agriculture emissions. The proposed investment aims to enhance processes and technology transfer focusing on the low carbon economy, resilience and adaptation to climate change.

Furthermore, wildfires constitute a significant contributor of climate change. Burned areas, weaken the mechanisms of CO₂ absorbing, accelerating therefore climate change. The early prevention and effecting handling of forest fires is considered of utmost importance in our efforts combating climate change. The ‘Forest fire protection’ investment (investment 9) therefore, effectively contributes to the protection of vegetation and the reduction of CO₂ emissions. It contributes to the green transition and the 37% climate mainstreaming target, by fully complying with the “do no significant harm” principle. It incorporates and positively affects, though in different scales, all the six environmental objectives of Article 9 of the Taxonomy Regulation.

As regards the electricity market initiatives (investment 10), is expected that the functioning of the competitive electricity market will facilitate the activation of independent generators of renewable energy, of aggregated demand response, storage facilities, high efficiency cogeneration, active consumers and energy communities in both the energy and balancing markets. As a result, the percentage of renewable energy consumed will be increased and the energy efficiency of the electricity system will be improved by reducing the grid losses.

The project of Common Interest “EuroAsia Interconnector” (investment 11) will enable the increase in the generation and consumption of electricity from renewable sources in Cyprus and Greece, and at the same time will also contribute to the increase in renewable energy generation and consumption in the Member States concerned with the overall objective to intensify energy transition towards long-term decarbonisation objectives. Regarding RES penetration, according to the National Energy and Climate Plan (NECP), Cyprus will reach by 2024 some technical constraints due to its energy isolation and the maximum limit on renewable energy sources being reached without the introduction of storage to the system. According to the NECP’s Planned Policies and Measures (PPM) scenario, due to the project, RES penetration can reach more than 50% by 2030, significantly reducing greenhouse gas emissions and dependency on oil imports. Furthermore, the project fully complies with the “do no significant harm” principle within the meaning of Article 2 point 17 of Regulation (EU) 2019/2088. It contributes to more than one environmental objective, as measured, by indicators used by the ENTSO-E in its Ten-Year Network Development Plan (TYNDP), used also by the European Commission in its PCI selection process. At the same time, it does not significantly harm any of those objectives.

2.7 Digital dimension of the component

Considering the importance of digital transformation, stemming mainly from the enhanced efficiency and accessibility these technologies enable, the digital aspect is widespread in this component. In addition, to the main objective of this component, which focuses on the enhancement of the efforts towards achieving the climate objectives, individual projects further contribute towards the digital objectives, by incorporating digital technologies (e.g., smart meters, automations and control systems) in the abovementioned projects.

The “Digital One-Stop Shops (reform 3) to streamline RES projects permitting and to facilitate Energy Renovation in Buildings” for instance aim at the digitalisation of the licensing permitting process. The establishment of the two Digital Platforms for the One-Stop Shops for RES and Energy Renovation in Buildings, offering various services accessible from one source, is part of

the government efforts to enhance the uptake to ICT solutions. This reform, therefore, will significantly contribute on the digital transition objectives (100%).

Similarly, as an investment enhancing the smart energy systems, the “Upgrading renewable energy and smart grids testing infrastructure at the University of Cyprus” (investment 6), will contribute principally (100%) on the digital transition objectives. Photovoltaic technology, battery storage, smart grids, smart appliances, demand-side management, are data intensive assets which are moving towards the digitalisation of the energy system. Information and Communication technologies (ICT), have become a core element in the energy sector, that can facilitate the overall efficiency of the infrastructures. Moreover, energy transmission, smart metering systems, censoring, new digital protections, automation, machine learning algorithms for energy forecasting, which are among the key thematic priorities of FOSS Research Centre for Sustainable Energy of the University of Cyprus, are needed for the observability and intelligent control of the electricity distribution networks. This in turn, enables a stronger and resilient energy sector and facilitates its decarbonisation.

In the same context, the installation of smart meters (investment 7), which will contribute at closing the digital economy gap:

1. Connectivity: Smart meters will bridge the digital divide between rural and urban areas, allowing all final customers to engage in the electricity market regardless of their geographic position
2. Human Capital: The roll out of smart meters will enforce the development of the necessary digital capacity to support resilient and efficient education, training and research, therefore enhancing digital skills and competences for the digital transformation.
3. Digital public services; smart meters will increase the interaction between administration and citizens/ businesses and will improve decision making.
4. Digitalisation of businesses: smart meters will aid the digitalisation of processes performed by the DSO which are currently performed manually.

As regards the electricity market initiative (investment 10), in order to successfully mobilise distributed generation and storage, demand response and self-consumption, digital solutions must be employed. As a starting point, the DSO is implementing the MMS-SCADA/ADMS-AMI suite of projects. For Cyprus, due to the absence of interconnections with other transmission systems, digitisation of the energy system is crucial in the effort to increase the contribution of distributed and often intermittent sources of energy without any adverse effects on the overall system stability. In the future, blockchain solutions to monitor small and distributed systems and automate the market settlement process will also be investigated. The proposed investment therefore contributes to the digital objectives by providing government ICT solutions.

2.8 Do no significant harm

In all measures included in this component that foresee construction works and purchase of new equipment, machinery, vehicles etc., all procurement procedures will require compliance with the DNSH principle as explained in detail in the separate DNSH assessment of the corresponding measure. This will apply both for investments in the public sector and for financial support schemes to the private sector.

See separate assessment performed on this area included as ANNEX 3 - Assessment of the compliance of the Cyprus Recovery and Resilience Plan with the ‘Do No Significant Harm’ Principle.

2.9 Milestones, targets and timeline

The milestones and targets for the investments/reforms of this component are presented in the attached table.

2.10 Financing and costs

The cost for each milestone and target is presented in the attached table.

2.11 Loan request justification (if applicable)

Reforms/investments under this component will be covered by the grant element of the Plan.

Policy Axis 2 Accelerated transition to a green economy

COMPONENT 2.2 Sustainable transport

3. COMPONENT 2.2 Sustainable Transport

3.1 Description of the component

Policy area/domain: Urban mobility and transport

Objectives:

The overall objective of the Component is to provide the impetus for a cleaner, smarter, safer and fairer urban mobility sector. This objective is in line with the national strategy for the road transportation sector via the National Energy and Climate Plan (NECP) for Cyprus.

The Component comprises of the following three thematic categories considered essential for successfully achieving the targets set both in the Sustainable Urban Mobility Plans (SUMPs) and the NECP, while also containing some updated and new actions adapted to recent developments:

- Thematic Category 1:* Shift to sustainable and smart modes of transport (Public transport, Cycling, Walking);
- Thematic Category 2:* Integration of smart and digital systems in the transport sector;
- Thematic Category 3:* Electro-mobility and the use of alternative fuels in the transport sector with zero or low GHG emissions.

The component champions the European Flagship 'Recharge and refuel' and promotes clean technologies towards a sustainable, accessible and smart transport by promoting the replacement of conventional rolling stock with zero and low emission vehicles accompanied with the necessary infrastructure, the use of alternative and cleaner fuels and means of transport and wider use of public transport. Actions and policy measures contribute to promoting RES and improving energy efficiency in accordance with the high-level goal of reaching the 2050 climate neutrality objective.

Reforms and investments:

1. *Shift to sustainable and smart modes of transport*
 - Investment 1: Implementation of Sustainable Urban Mobility Projects (SUMP) and accessibility enhancing measures.
2. *Integration of smart and digital systems in the transport sector*
 - Reform 1: Establishment of an Intelligent Transportation System (ITS) using Digital Twin technologies.
3. *Electro-mobility and the use of alternative fuels in the transport sector with zero or low GHG emissions*
 - a) *Infrastructure*
 - Reform 2: Provide the regulatory framework for an interoperable and effective electric vehicle recharging infrastructure and an efficient Electric Vehicle (EV) recharging market.
 - Investment 2: Creation of electro-mobility infrastructure.
 - b) *Electric, Low Emission Vehicles and alternative means of transport*
 - Reform 3: Progressively phase out the most polluting vehicles, especially in polluted urban areas.
 - Investment 3: Promote widespread use of EV, LEVs and alternative means of transport.

There are complementarities between this and other components, including the cross-cutting reform on the green taxation (component 2.1), which includes a Carbon Tax.

Flagship initiatives: Recharge and refuel, Power up, Modernise, Scale-up

Total estimated budget to be funded through the RRP: €91,3 mln

3.2 Main challenges and objectives

Main challenges

The 2019 and 2020 Country Specific Recommendations (CSRs) for Cyprus highlight a number of challenges faced by the transport sector over time and stress the need to support sustainable transport and mobility, invest in green and digital transitions, in particular on clean and efficient production and use of energy. In summary the main challenging issues are:

High dependence on private vehicles

The urban mobility sector in Cyprus is characterised by high dependence on private vehicles in tandem with low usage of public transport, which by extension contributes to congestion in urban areas, increased Green House Gas (GHG) emissions and energy consumption. Transport is responsible for 49% of non-ETS (Emissions Trading System) sectors GHG emissions (around 25% of the total GHG emissions), contributing significantly to increased environmental and public health impacts relating to air and noise pollution. From 1990 to 2017, the increase in total greenhouse gas emissions from transport in Cyprus was 57,7%, more than double the EU average. The binding national target of Cyprus for GHG according to regulation 2018/842 is a reduction by at least 24% by 2030 in relation to GHG emissions in 2005.

According to Eurostat, Cyprus had, along with another member state, the 3rd highest rate of passenger cars per 1000 inhabitants in Europe (629 passenger cars per 1000 inhabitants, compared to the EU average of around 564), in 2018. In the same year, Cyprus recorded the 4th highest percentage of households' expenditure on transport (14,7%) in comparison to the EU average (13,2%). Limited accessibility to and use of more affordable means than a private vehicle contributes to this phenomenon.

Currently the modal share of cars in Cyprus is over 90%. However, based on scenario modelling, a modal share of 81% for private vehicles, 10% for public transport and 9% for walking/cycling is feasible. These figures have been set as national targets. An analogous reduction of GHG emissions is expected to be achieved based on this estimated modal shift. Based on the SUMP projections, for a reduction of 10% of modal shift of car trips, a range of reduction of GHG between 5% and 10% is expected.

An important challenge is also to drive behavioural change towards sustainable mobility solutions by motivating environmentally beneficial commuting habits or increasing costs for negatively impacting behaviours.

Cyprus' key objective in the RES target towards 2030 is to achieve at least 23% RES in final energy consumption, while the transport target was set to 14% in final energy consumption by 2030. Both targets will be very challenging to achieve, and this requires the replacement of road-transport fleets, technology and infrastructure transformations and the transition towards other modes of transport. It is worthwhile mentioning that practically 100% of the vehicle fleet in Cyprus is currently either petrol or diesel fuelled (around 80% and 20% respectively), while the alternative fuels share is negligible. The necessary infrastructure for this transition is currently not in place.

Market failures

Public transport: The transport infrastructure in Cyprus is provided through public services contracts managed by the Ministry of Transport. Experience from the past decade regarding the public passenger transport services through the use of buses revealed certain problems. The type of contracts used were the “gross type contracts”, whereby the revenue derived from ticket sales goes entirely to the public authorities, who then distribute the proceedings to the operators to provide transport services. This type of contracts created a disincentive for the operators in attracting new bus passengers.

The new contracts for 2020-2030 are “net based contracts” in accordance with the European Regulation 1370/2007, whereby the revenue from ticket sales goes to the service provider as a part of the payment for its services by the public authorities. These forms of contracts motivate the operator to increase the number of passengers, as well as customer satisfaction and are more appropriate for the distribution of responsibilities between the public authorities and the operator, leaving room for innovation, quality improvement and provision of incentives by operators to attract more bus passengers. These types of contracts are currently in progress for the districts of Nicosia and Larnaca and will cover the rest of the districts soon.

Electro-mobility: The high cost of electric vs conventional vehicles and the lack of infrastructure for electro-mobility constitute a deterring factor for individuals and businesses to purchase zero or low emission vehicles. Additionally, the short distances travelled extend the investment depreciation periods against the cost difference.

It is, therefore, crucial that promoting both clean vehicles and the corresponding infrastructure must be supported simultaneously for relevant investments to have a significant impact. This can only be achieved through public funding due to the difficulty of the private sector to fund such large-scale investments.

Road safety

Cyprus is still facing significant challenges in road safety. The high numbers of accidents caused by motorised vehicles, as well as of fatalities and serious injuries and accident accumulation zones along major corridors and major junctions in the city centres pose significant problems. Almost 70% of road fatalities occur in build-up areas, which is far above the European average of 38%. In 2019, Cyprus recorded a 6% increase in road fatalities leading to a total of 59 road deaths per mln inhabitants, i.e. a substantial diversion from the European average of 51¹⁷.

Regulatory framework

Currently, the regulatory framework for infrastructure development as well as tools for promoting modal shift are missing or outdated. This deters private investors from entering the market or it leads to inefficient investments or environmental, social or economic negative externalities. It is thus necessary to update the regulatory framework to facilitate coordination between investments, monitoring and evaluation as well as to promote enough environmental standards.

Objectives

The component champions the European Flagship ‘Recharge and refuel’ and promotes clean technologies towards a sustainable, accessible and smart transport by kickstarting the replacement of conventional rolling stock with zero and low emission vehicles accompanied with the necessary infrastructure, the use of alternative and cleaner fuels and means of transport and promoting a wider use of public transport. To this end, actions and policy measures contribute to

¹⁷ 2020 and 2021 figures are not representative of the trend because of the pandemic restrictive measures.

promoting RES and improving energy efficiency in accordance with the high-level goal of reaching the 2050 climate neutrality objective.

Social resilience and social inclusion

The investments in clean and smart urban mobility will improve public health through decreased pollution and noise, increased safety and more active lifestyles. Smart urban mobility will reduce congestion and the time spent in traffic, with a positive effect on labour productivity. Providing more public transport alternatives will also help the integration of the most vulnerable citizens into the labour market.

Twin transition

The component promotes jointly the green and digital transitions, through smarter, more integrated, informed and greener urban mobility services. Smart mobility will benefit from but also contribute to 5G roll-out and the development of efficient digital technologies such as artificial intelligence and block-chain. Investing in smart traffic management systems, embedded sensors, and connectivity networks as well as tracking and tracing technologies, in line with GDP, all integral part of the Digital Twin ITS System can manage traffic flows, reduce congestion and travel time, and therefore further decrease GHG emissions. In addition, collecting data from cars, public transport and micro mobility services that feed into smart traffic management systems will help the authorities to monitor, report and take data-driven decisions. Significant environmental benefits are also expected from substituting conventional cars with EVs and increasing RES penetration in the transport sector with reduction in air, water, soil and noise pollution.

Sustainable growth and job creation

The investments related to the component will create a significant number of jobs and contribute to growth both at local and national levels. This will be achieved due to reduced fuel import costs and improved environmental performance, as well as by creating opportunities in new markets within the transport sector, ITS and sustainable transport. Sustainable mobility along with the energy efficiency measures, are major growth-enhancing measures as they induce relatively more economic activity in local branches.

Road safety

The investments in road infrastructure will improve road safety for all users of the transport network. A safer urban environment will assist the transition from private vehicles to active means of transport (e.g. bicycles) and public transport for the daily movement of citizens.

CSRs addressed

Reform /Investment	Year / No/Recital	CSR	Justification
Thematic Category 1: Shift to sustainable and smart modes of transport			
Investment1: Implementation of SUMP projects and accessibility enhancing measures	CSR 4 2019, Recital 14 CSR 3 2020, Recital 23		The investment will create necessary infrastructure to enhance urban mobility with more environmentally friendly options, improve city environment, enhance the accessibility and safe movement of all user population (pedestrians, cyclists, and people with disabilities) in urban centres.
Thematic Category 2: Integration of smart and digital systems in the transport sector			

<p>Reform 1: Establishment of an Intelligent Transport System using Digital Twin technologies</p>	<p>CSR 4 2019, Recital 14 CSR 3 2020, Recital 23</p>	<p>The reform will enhance technological infrastructure, enable better and more efficient monitoring and introduce smart features.</p>
<p>Thematic Category 3: Electro-mobility and the use of alternative fuels in the transport sector with zero or low GHG emissions</p>		
<p>Reform 2: Provide the regulatory framework for an interoperable and effective electric vehicle recharging infrastructure and an efficient EV recharging market</p>	<p>CSR 4 2019, Recital 14 CSR 3 2020, Recital 23</p>	<p>The reform will facilitate the creation of electro-mobility infrastructure.</p>
<p>Investment 2: Creation of electro-mobility infrastructure</p>	<p>CSR 4 2019, Recital 14 CSR 3 2020, Recital 23</p>	<p>The investment will create the necessary infrastructure to facilitate the transition to electro-mobility, motivate the private initiative and contribute in the deployment of charging points infrastructure.</p>
<p>Reform 3: Progressively phase out the most polluting vehicles, especially in polluted urban areas</p>	<p>CSR 4 2019, Recital 14 CSR 3 2020, Recital 23</p>	<p>The reform will provide the regulatory framework to create impetus for replacing old and pollution intensive rolling stock and provide the basis for using sustainable commuting and mobility options.</p>
<p>Investment 3: Promote widespread use of EVs, LEVs and alternative means of transport</p>	<p>CSR 4 2019, Recital 14 CSR 3 2020, Recital 23</p>	<p>The investment will replace old and pollution intensive conventional vehicles and provide incentives for the purchase of electric vehicles, LEVs and alternative use of transport (e.g. bus, bicycle).</p>

3.3 Description of the reforms and investments of the component

The Reforms and investments are presented below under the three thematic Categories:

Thematic Category 1: Shift to sustainable and smart modes of transport (Public transport, Cycling, Walking)

- **Investment 1: Implementation of Sustainable Urban Mobility Projects (SUMP) and accessibility enhancing measures**

Challenges

Limited mobility options, insufficient public transport infrastructure: Accessibility in the cities of Cyprus for those with no direct access to a private vehicle is limited. Most households own

private vehicles and household members use these exclusively without resorting to alternative or public means of transport. This is reinforced by the lack of suitable road infrastructure to support public transport options and alternative means of mobility like cycling and electric scooters.

Economic efficiency: The potential economic development of Limassol and Larnaca is constrained by the fact that capacity for the private motorised transport is at limit and very difficult to be expanded further. Furthermore, the cities risk losing their attractiveness for further economic growth through settlement of new companies and through attracting tourists and visitors. Moreover, traffic congestion is detrimental to citizens' well-being by increasing anxiety, time lost in traffic, risk of injuries etc., which cumulatively impact negatively on economic efficiency and citizens' wellbeing.

City attractiveness: Both Larnaca and Limassol are coastal cities with high touristic significance. Both the permanent residents and visitors are seeking clean air, calm environment and unhindered access to the attractions of the cities and especially the seaside. It is vital for these cities' attractiveness that both their residents and visitors are not affected by excessive car traffic, limited availability of public urban space, lack of clean air and noise pollution. The SUMP measures aspire to improve the quality of life for residents and visitors by pedestrianisations of local centres, connected cycleway networks, tree-planting along urban roads and generally improving the public realm, the accessibility and the attractiveness of these cities.

Environmental and social sustainability: In Limassol and Larnaca environmental sustainability is put at risk by the massive motorised traffic, the disproportionate fleet of cars compared to the number of residents and the age and quality of engines. CO² emissions from transport grow instead of diminishing. Cyprus lacks behind in key climate change performance indicators. The shortcomings of the urban transport network negatively impact citizens' quality of life and well-being, including economic well-being, quality of the environment, safety and security, available public urban space.

Health, safety and social inclusion: Lack of continuous and functional road network with appropriate pavements and ramps suitable to safely accommodate active travelling for pedestrians, cyclists, and vulnerable users in urban centres has adverse health and social impact on the standard of living and is an obstacle to the social integration of people with disabilities.

Objectives

Support of public transport and alternative mobility options: SUMPs include policies and a set of targeted measures able to drive a modal shift from car trips to sustainable modes of transport. The specific measures included are expected to significantly improve bus services (routes, frequencies and hours of operation), upgrade infrastructure for public transport/pedestrians/cyclists, introduce intelligent transport systems and promote growth.

The investment focuses on the SUMPS of the urban areas of Larnaca and Limassol because the SUMPs for the two specific cities were completed recently (2019 and 2020). Investment 1 aims to formulate the main urban corridors of these cities to increase multimodality between the local city municipalities centres. The SUMP for Nicosia was completed in 2010, including several complementary measures (and will be revised in 2022). Similar measures are also scheduled to be implemented in the remaining major urban areas of Cyprus.

Scenario modelling shows that if the current status quo in the provision of transport infrastructure and mobility services is maintained, 96% - 97% of all travel in 2030 will be made by private vehicles. The combination of policies and measures was shaped and evaluated through the macroscopic transport model (VISUM). Based on the projections of the model, the measures will be an essential step towards changing the mobility behaviours of citizens, reducing the share of commuters using a private vehicle from 93% to 81%, while at the same time significantly increasing public transport passengers by a five-fold in the period between 2019-2030.

The measures included in SUMP for Larnaca and Limassol consist of the following:

- Design and construction of cycleways and cycle stands/shelters as included in the SUMP priority corridors for Larnaca and Limassol;
- Design and construction of the introduction of Park & Ride (P&R) stations;
- Introduction of bus lanes within the urban area of Limassol and Larnaca via the rearrangement of existing road sections and with no additional road enlargement undertaken;
- Introduction of Intelligent Transport Systems (i.e. smart traffic light system with bus priority system) as included in the SUMP priority corridors for Larnaca and Limassol;
- Design and construction of infrastructure for improving road safety conditions in main junctions as included in the SUMP priority corridors for Larnaca and Limassol. This measure is in line with the Strategic Road Safety Plan 2021-2030 for Cyprus, and more specifically falls into the planned actions under the component “Safer roads and Mobility”.

As regards the enhancement of the Service of Public Transport, the specific investment includes the introduction of bus lanes, Park and Ride stations and relevant IT systems. These elements are in synergy with a number of measures within the overall effort to improve the Public Transport service. These encompass (a) the new Public Transport Concession Contracts (2021-2030) which include an increase in service kilometres by 22% across Cyprus and with the possibility to expand by further 50% in the future as demand increases (National Budget); (b) the Renewal of the bus fleet (EURO 6 engines or cleaner) via the new Public Transport Concession Contracts (2021-2030) (National Budget); (c) the investment in PT Telematics for managing sales through smartcards, managing the service and providing real time information to customers (ESIF); (d) the investment in Central Stations & Electro-mobility (ESIF), and (e) the investment in Bus Stops/Shelters, Digital Technologies & Electro-mobility (ESIF).

In addition, actions expected to contribute towards the desired sustainable transport culture and behaviour by citizens include the marketing and communication strategy for the implementation of the SUMP and their benefits (National Funds), parking policy in city centres to discourage the use of high polluting cars (see Reform 3), as well as the green tax on fuels to be introduced (see component 2.1) in order to discourage use of high polluting cars.

Overcoming reliance on roads for inland transport and congestion to and from ports: The SUMP allocate appropriate routes for freight movement to and from the ports to limit the presence of Heavy Goods Vehicles (HGV) in multimodal roads or to generate through-traffic to the city centre. In terms of commuting and leisure trips, within the study area of Investment 1, there are corridors connecting the ports of the two cities with the city centre and therefore measures towards increasing multimodality between the ports and the rest of the city.

Improving accessibility in urban centres: The investment will improve accessibility for vulnerable users through infrastructure improvements/upgrades. This will also serve to encourage the transition to environmentally friendly modes of transport in urban centres, based on the principles of sustainable urban mobility. The improvements are expected to contribute to the creation of a more pleasant, sustainable and safer urban environment and promote the use of active means of transport such as cycling and public transport for the daily movement of citizens.

Improving safety: The investment will enhance safety of urban network by ensuring wide and functional sidewalks, seamless and functional cycling network of high standards, suitable pavement ramps, and safe road crossings for pedestrians, cyclists and people with disabilities.

Promoting social inclusion: SUMP include the construction of disability inclusive infrastructure in urban centres which will create a positive “leave nobody behind” mentality and can empower people with disabilities to be part of societal and economic development.

Implementation

The Investment will be implemented by the Public Works Department (PWD), Ministry of Transport and Public Works.

Limassol and Larnaca SUMP: Following the completion of the Limassol SUMP in 2019 and Larnaca SUMP in 2020, the PWD will implement a strategic transport plan for the two cities. This part of the Investment is separated into the following work groups:

- Group 1 includes the introduction 36 km of Cycleways, 14 km of Bus lanes and the relevant supportive ITS equipment as included in the SUMP priority corridors.
- Group 2 includes the introduction of 55 cycle hubs, shelters and improvement of road safety conditions at for 18 junctions as included in the SUMP Priority Corridors.
- Group 3 includes the introduction of 5 new Park & Ride stations and the relevant supportive ITS equipment as included in the SUMP priority corridors.

Accessibility enhancing measures: In addition to the above, upgrades will take place involving small to medium size measures on the existing road network in all urban centres, including the construction of approximately 4 km of cycleway infrastructure, approximately 8 km of walkway infrastructure, 40 pedestrian / cyclists / crossings for persons with disabilities, warning systems for the visually impaired, installation of 300 bicycle parking hubs and the construction of 300 walkways ramps. In addition, the project will include the installation of lighting, signage, road humps and other associated traffic management measures, 30 km/h speed limit zone, push button devices with suitable sound and touch systems for the visually impaired people. The measures are in line with the implementation of the Strategic Planning of the PWD for the promotion of cycling, which includes infrastructure upgrades to create a functional and safe environment for cycling.

Smart Measures: The investment will also contribute to the digital transition through the promotion of smart, integrated mobility solutions. These are also linked to Reform 1 *Establishment of an Intelligent Transportation System (ITS) using Digital Twin technologies* below. More specifically, the following digital measures are included:

- Dynamic Bus Display at central bus stations, the “Park & Ride” stations and at strategic locations along the SUMP priority corridor;
- Advanced Urban Traffic Control System along the SUMP priority corridor to optimise the traffic flows in the urban environment by using advanced traffic regulation algorithms in order to serve in real-time the optimised traffic demand requirements;
- Bus Priority System to provide bus priority in traffic lights intersections in order to reduce bus intersection delay and to optimise bus travel time along the SUMP priority corridors;
- Bus Lane Enforcement System to enforce unauthorised use of dedicated bus lanes;
- Traffic Detection and incident detection sensors used along all the SUMP priority corridors for digitalizing the performance of the measures for each mode of transport and integrating the system to a wider digital platform (digital twin).

State Aid

The investment concerns infrastructure construction for the public benefit and does not constitute state aid.

Target population

Citizens of Limassol and Larnaca, relevant local authorities, the Ministry of Interior (Town Planning Department), Public Transport related organisations, persons with disabilities, cyclists, pedestrians.

Timeline

Q2 2023: Signing of contracts for the provision of ancillary installations related to sustainable transport and completion of detailed design and other technical and environmental studies for the sustainable transport routes.

Q2 2024: Contracts Signature for the construction of cycleways, bus lanes and Park & Ride Stations of the SUMP.

Q1 2026: Construction of approximately 62 km of sustainable transport routes (cycleways 40 km, bus lanes 14 km and walkways 8 km) and approximately 645 ancillary installations related to sustainable transport (5 park and ride stations, 40 crossings, 300 ramps, 300 bicycle parking hubs).

Thematic Category 2: Integration of smart and digital systems in the transport sector

- **Reform 1: Establishment of an Intelligent Transportation System (ITS) using Digital Twin technologies**

The current thematic category refers to the implementation and use of Digital Twin technology for the Cyprus Mobility Sector as a bridge between the physical and digital mobility networks. The Digital Twin technology, in this case, is the use of an advanced Geographical Information System (GIS) integrated with field sensors, transport models and data analytics tools, allowing for the digital simulation of the physical networks. This facilitates the accurate digital representation and interpretation in real time of the current situation in the mobility networks as well as forecasting to aid decision-making.

Challenges

Technological and infrastructure lag: Recent developments in the mobility sector require the provision of integrated multimodal services with increased efficiency, safety and choice. To achieve this, it is necessary for the digitisation of the networks and the use of Intelligent Transport Systems (ITS) to include comprehensive coverage. Additionally, integration of sharing mechanisms for charging supports multimodality, which requires the use of Accounting Based Systems to settle payments across services, such as public transport, parking, car sharing and bicycle rental.

Furthermore, there is an increasing need to promote clean vehicles equipped with telematics systems that allow their interaction with other vehicles and with surrounding infrastructure. The deployment of ITS allows Vehicle-to-Infrastructure communication (V2I), i.e. vehicles sharing information with the road network, and subsequently passing that information to the digital twin will further promote the creation of multimodal services and offer efficient and safe choices for mobility.

Such actions will enhance the traffic and mobility management at urban and interurban networks through effective decision-making processes and close co-operation between the responsible agencies, supported by the collection and analysis of mobility data, which will in turn have direct positive impacts on GHG, air pollution emissions, health, efficiency, productivity and quality of life.

Managing payments across different mobility modes and services: multimodality requires mechanisms that allow users to pay for different modal services in an easy and effective manner, without direct interaction with the individual modal providers. For example, bus users may pay for Parking and Riding or using rented bicycles for their last mile trip. Payments can be processed using e-wallets on smart cards used in public transport in Cyprus known as "MOTIONBUSCARD". This requires the integration of charging and clearing payments across different PT Operators and other modes of transport or other relevant providers such as parking administrator. The emerging approach to this, as a best practice solution, is the implementation of an Accounting

Based System, to clear payments across services, such as buses, parking, car sharing and rental of bicycles, in a very effective manner.

Objectives

The overall objective of this Reform is to develop and implement modern ITS infrastructure, which will enable enhanced mobility management in urban areas and the Cyprus TEN-T Network and to introduce a co-operation framework between the government, emergency services, local government, educational establishments and the private sector in this particular field (ITS Cyprus).

The project builds on a “smart concept” at a countrywide level, employing digital simulation of networks (mobility, utility, service networks), allowing for interdependencies identification and management of the logistics and response strategies to events by the responsible agencies in an informed manner. Information will flow to users and to third parties for developing their multimodal services and for supporting investments and research.

Participatory platforms and digital research and innovation: The digitisation of transport and utility networks and their link to the surrounding environment (buildings, industrial facilities, etc.) is essential in enhancing cooperation between agencies. Cyprus Digital Twin (CY DG Twin) incorporates close co-operation with other public services, Utilities, Police and Emergency Services, Municipalities and Higher Education institutes, through the development and the enhancement of digital tools. Such tools are the complete digitisation of mobility networks in an open-source geographical information system (GIS) and the mobility platform, which will provide relevant data and access to responsible agencies for managing the Cyprus mobility networks.

The development of the above tools follows a participatory process and includes the relevant stakeholders, academic and research institutes. The latter will use the collected data for implementing projects that incorporate elements of research and innovation for the advancement of ITS.

Digitisation of Networks: This project pursues the digitisation of the mobility and utility networks, underpinned with a detailed GIS and extending the coverage of network sensors and telematics technologies to create the CY DG Twin. The information collected and analysed in the geographical based models will be returned to the users for planning their trips, giving them expected travel times, state of the networks and choices on modes. The users will be provided with multimodal door to door trip information and plan their trip and pay in an easy manner. Also, information will be returned to the responsible agencies, such as police and emergency services, to manage effectively incidences and divert users to alternative routes and modes.

Introducing intelligence and quality assurance: The reliability of data and its quality is extremely important for aiding decision making of responsible agencies managing and investing in the mobility networks, when data is provided to third parties for developing multimodal services and to the end user to make appropriate choices. Therefore, this action provides for the development of clear procedures for collecting and verifying data from different sources. Additionally, data driven decision-making process requires the setting of Key Performance Indicators that will allow the evaluation of performance of the mobility networks. This entails the analysis of data collected and synthesis of data to produce new (metadata) using business analytics tools.

Implementation

Upgrade of the Mobility Coordination Centre (MCC): The reform will connect the existing Mobility Coordination Centre to the Authorities and Agencies (e.g. local authorities, police, ambulance service or other public utilities) responsible to manage specific sections or types of networks, events and incidences providing direct access to important tools and information. Data Centres set up to TIER III level will underpin the function to provide information, amongst others for monitoring service conditions of mobility networks and real time traffic conditions, managing

planned events and incidences, implementing Response Strategies, sharing information in GIS Layers and open data.

Digitisation of networks: This provides for the installation of 300 sensors connected to the National Access Point to cover the primary network in urban areas and the Cyprus TEN-T network. The sensors comprise of Cameras with machine vision, sensors with inductive loops and Bluetooth technologies as well as electronic Variable Message Signs to implement Network Management Strategies.

This reform provides for the digitisation of the physical mobility networks in GIS Data base and integration of mobility services. It specifically incorporates:

- The digitisation of the full network of Cyprus;
- Specific information such as permitted routes that can be followed by vehicles that are carrying large loads or dangerous goods and industrial zones;
- Topology tools for digitising and optimising public transport routes;
- Integrated Ticketing and Accounting Based System for Customers.

The reform will improve and expand the existing open-source GIS Platform to include a number of stakeholders and this is where a number of other Utilities can share significant amounts of information with the Government Departments in terms of existing networks that can be used for network improvements and managing planned events or incidences. It also provides for the expansion of integrated ticketing platform to allow clearing payments across multimodal services and for that discussion for co-operation between the PWD, Ministry of Transport, municipalities that provide parking, Public Transport Operators and companies running bike sharing schemes is being developed.

A discussion for co-operation between the PWD, Ministry of Transport, Public Utility Companies and Local Authorities is currently under development which will be formalised and supported through the ITS Co-operation Platform under the Digital Twin.

Business analytics tools and quality assurance: The reform requires the purchase, installation and configuration of business analytics tools related to the road transport network, the public transport service and other sustainable modes of transport (cycling & last mile services). In addition, this investment provides for the recording of all data collection processes for the purpose of improving those and ensuring data reliability to a relevant Quality Assurance Standard.

Review of legal compliance and evolution of legal framework: The collection of live data from the mobility networks and the evolution of technology for Cooperative Intelligent Transport Systems (C-ITS), needs to comply with existing and future legislation. This process provides for the evaluation of processes for collecting and keeping data from mobility networks, so these comply with GDPR legislation.

Furthermore, following an analysis of the impact of emerging technologies in the transport sector, and particularly of Cooperative Automated Driving (CAD) and Cooperative Intelligent Transport Systems (C-ITS), there will be a review of the affected legislation and proposed legislative measures to allow the use of such technology.

All the above will include appropriate consultation, training, publicity and specialised support.

State Aid

The funding concerns exclusively state activity and does not constitute state aid.

Target population

The Public Works Department, responsible for the primary and motorway network across Cyprus as well as for planning the public transport services; 112 Centres for incidences, Local Authority Smart City Centres for coordinating their works and services; Public Utilities Centres for coordinating their works and services; Research Institutes and Centres of Excellence; Users of the transport network.

Timeline

Q1 2024 - Delivery and installation of 150 sensors, representing at least 50% of the total sensors to be installed.

Q4 2025 - Delivery and installation of the total of 300 sensors to be installed and connected to the National Access Point

Thematic Category 3: Electro-mobility and use of alternative fuels in the transport sector with zero or low GHG emissions

- **Reform 2: Provide the regulatory framework for an interoperable and effective electric vehicle recharging infrastructure and an efficient EV recharging market**

The “European Strategy for Low-Emission Mobility”, stresses the need for the decarbonisation of the transport sector and the consequent reduction GHG emissions, especially in urban areas. It also highlights the important potential contribution of electro-mobility to those objectives. Market regulations should therefore contribute to creating favourable conditions for electric vehicles of all kinds. In particular, they should ensure the effective deployment of publicly accessible and private recharging points for electric vehicles and should ensure the efficient integration of vehicle charging into the system. The reform, as well as the related investments are in line with the national policy plan for the market development of alternative fuels in the field of transport.

Challenges

Absence of regulatory framework: Absence of the appropriate permitting procedures act as a barrier to the public and private sector for the deployment of electric vehicle recharging infrastructure.

Monitoring and data collection: The absence of a regulatory framework does not allow for the coordinated collection and analysis of data allowing for the effective network monitoring as well for ensuring compliance with national and EU legislation.

Objectives

The Reform aims at the enactment of legislation regarding the effective electric vehicle recharging infrastructure and efficient EV recharging market. The regulatory framework will promote: (1) a mechanism for implementation and monitoring of the recharging market of electric vehicles (2) coordinated analysis of data allowing for the effective network monitoring as well for ensuring compliance with national and EU legislation.

Implementation

The Department of Electrical and Mechanical Services of the Ministry of Transport, Communication and Works will tender for the procurement of Expert Services for the preparation of the necessary regulatory framework as follows:

- Drafting of the necessary legislative regulations;
- Submission of proposals for the structures required for the implementation and monitoring of the new regulations;

- Submission of proposals related to recharging infrastructure management including the licensing, installation and operation of electric vehicle recharging points.

State Aid

The Reform will be implemented within the framework of state authority for the regulatory process and does not constitute State Aid.

Timeline

Q4 2024: Enactment of legislation regarding the effective electric vehicle recharging infrastructure and efficient EV recharging market.

Target population

Owners of charging points / stations for public use, EV users.

- **Investment 2: Creation of electro-mobility infrastructure**
 - Installation of publicly accessible fast charging stations for electric vehicles;
 - Grants scheme for the installation of charging points in publicly accessible areas, businesses, and local authorities;
 - Support Scheme (Grants) for Charging Electric Vehicles from Renewable Energy Sources.

Challenges

Insufficient recharging infrastructure: Currently the electro-mobility sector in Cyprus is at an initial stage. This, along with the high cost of electric vehicles acts as a deterring factor for the widespread adoption and penetration of electro-mobility by consumers and businesses.

Market failures: Currently there is no substantial interest in the development of publicly accessible vehicle charging infrastructure by the private sector due to the high cost and barriers to entry.

Objectives

The overall objective of Investment 2 is to contribute to the creation of the necessary infrastructure to facilitate the modal shift towards electro-mobility in Cyprus and, in combination with the increasing penetration of RES, reduce the GHG emissions produced by the transport sector. The specific Investment serves a two-fold purpose. That is, to increase the penetration of RES in private dwellings and local authorities' premises, while simultaneously promoting the installation of electro-mobility infrastructure. This is achieved by linking the two actions and making it obligatory to power the charging points by RES in order to participate in the scheme.

Actions include the direct installation of charging stations at widely visited publicly accessible places as well as financial motivations for the private initiative to contribute in the deployment of charging points (normal and fast charging) infrastructure. According to the Department of Road Transport, 576.150 M1 vehicles were licensed in Cyprus on 31/12/2020. It is expected that at least 5% of the total fleet will be electric or plug in hybrid within the next 5 years which roughly equals to around 45,500 EVs and LEVs. The number of EV charging stations in conjunction with existing/forthcoming supporting schemes for EV charging points in households and publicly accessible areas will suffice the expected demand.

Also, the investment will facilitate the transition to electro-mobility by lifting obstacles in relation to consumer concerns about the energy autonomy of electric vehicles.

- **Installation of publicly accessible fast charging stations for electric vehicles**

Implementation

The action will be implemented by the Department of Electrical and Mechanical Services (EMS).

The installation of charging stations is a demonstration project for the promotion of electro mobility. With the installation of these 10 fast charging stations (80kW), the goal of the EMS is to provide access to fast recharging infrastructure for EVs. This will contribute in removing consumer inhibitions concerning EV autonomy.

EMS will tender for the installation and operation of 10 double publicly accessible fast charging stations for electric vehicles at public areas such as general hospitals (Nicosia, Limassol, Larnaca, Paphos and Famagusta General Hospitals), large publicly accessible parking places or outside public services buildings like the Ministry of Finance and Courts.

State Aid EMS will install the charging stations in public areas and therefore the measure falls under art. 36 of the GBER. EMS will follow the definitions of publicly accessibly charging points of Dir 2014/94 EE.

Target population Electric vehicle users, Local Authorities, General Government and Businesses.

- ***Grants scheme for the installation of charging points in publicly accessible areas, businesses, and local authorities.***

Implementation

The scheme promotes the installation of charging points in publicly accessible areas owned by businesses or local authorities. The scheme will include Normal charging points of 3.7 – 22kW and Fast charging points of 50kW or above (including charging points with “smart charging” operation mode), depending on market needs. The EMS in collaboration with the Cyprus Energy Agency will implement the above support scheme. The criteria for participation are the following:

- The investment must meet the minimum technical specifications (performance, connection to the grid, safety, connectivity, charging types etc.) of the call for applications;
- The beneficiary must not have received funding from any other grant scheme for the installation of the charger;
- The beneficiary will be limited in the number of charging points based on the restriction of the maximum grant amount per applicant.

State Aid

The scheme involves installation of charging points in publicly accessible areas, business, private and local authorities’ premises. As regards publicly accessible charging stations, these fall under art. 36 of GBER. The semi – publicly accessible charging stations will fall under de minimis rule. EMS will follow the definitions of publicly accessibly charging points of Dir 2014/94 EE.

Target population

General population, users of electric vehicles, private organisations and companies, professionals, local authorities, General Government.

- ***Support Scheme (Grants) for Charging Electric Vehicles from RES***

Implementation

The Investment will be implemented by the national “RES and Energy Conservation Fund”, which was specifically set up to provide grants to promote RES and energy saving.

The scheme aims at providing financial incentives to promote the development of the necessary infrastructure for electro-mobility and especially the charging of electric vehicles from RES. The grants scheme includes the following two separate sub-schemes per type of infrastructure and recipient:

1. *Installation of photovoltaic systems and charging equipment in dwellings for the charging of electric private vehicles.*
2. *Financing local/public authorities for the construction of public charging points for electric vehicles. Electricity will have to be generated (if possible, totally, or partially) from RES.*

Description of the RES and Energy Conservation Fund:

The RES and Energy Conservation Fund (the Fund) is the main financial tool of the Republic of Cyprus to promote RES and Energy Conservation (EC), with a view to achieving the binding national targets, as defined by the legislation and the relevant European Directives. The Fund was initially established on the basis of the Promotion and Encouragement of the Use of the RES and Energy Saving Law of 2003, as a “Special Fund”. With the adoption of the Promotion and Encouragement of the Use of the Renewable Energy Sources Law of 2013 (Law 112(I)/2013), the Special Fund was renamed to “The Renewable Energy Sources and Energy Conservation Fund”. The purpose of the establishment of the Fund was to provide financial incentives in the form of state grants or subsidies for various investments or activities which promote RES and energy saving.

As regards its income, the Fund is an independent entity with its own resources and budget. The main source of income of the Fund, with which it finances the Support Schemes and covers its operating and other expenses, is the Consumption Fee (or “RES Fee”) imposed on all electricity consumers. The fee is collected by the electricity supplier (EAC) through the electricity bills and is set at a standard rate of €0,005 per kWh.

Regarding expenditure, the Fund is committed to long-term Feed-in-Tariff (FiT) contracts concluded on the basis of Subsidy Schemes that operated in the past (before 2015). In summary, the Fund subsidises, under FiT Subsidy Contracts, the price of energy from RES installations, at an amount corresponding to the difference in a guaranteed purchase price per kWh, minus the cost of purchasing the RES energy paid by electricity suppliers (“Avoidance Costs” – AC). The subsidy amount paid by the Fund is increased in the event of a reduction in international fuel prices (AC reduction). In essence, the Fund’s financial capacity to launch new support schemes and also to cover contractual obligations of previous years, depends on the evolution of the AC. Indicatively, the annual amount required to cover the FiT contracts subsidy commitments ranges between €20-30 mln (depending on the AC).

Due to the reduction of international fuel prices since May 2020 (due to the COVID-19 pandemic), in combination to the drop in electricity consumption (resulting in the reduction of the Fund’s revenues), the Fund has now very limited capacity to launch new support schemes, aiming to contribute to the achievement of the binding national targets in RES and EC. The approved Budget of the Fund for 2021-2023 provides for no possibility to finance new support schemes from 2022 onwards, since all resources of the Fund should be used to cover FiT contracts subsidy commitments¹⁸. For 2021, the Fund will be able to launch new schemes, which will in fact be financed from the reserves accumulated from the surpluses of previous years.

¹⁸ Article 4230 of the [Budget](#) - page 929

FiT contracts subsidy commitments	Total Valued Output (KWH)	Est. 2021	Est. 2022	Est. 2023
Photovoltaics	124.147.974	€10.559.512	€9.318.032	€9.307.599
Wind parks	220.611.277	€16.769.220	€15.636.665	€15.636.665
Biomass	26.768.287	€1.072.258	€799.476	€799.476
TOTAL		€28.400.990	€25.754.173	€25.743.741
Reserve at the start of year		€37.719.273	€11.750.035	€6.094.518
Annual income (RES Fee)		€22.692.662	€23.199.890	€23.665.390
Finance of new support schemes		€9.149.500	€2.000.000	-
Reserve at the end of the year		€11.750.034	€6.094.518	€2.914.934

*Above calculations were made in November 2020, based on an estimated AC of €0,08710 (for 11KV) and €0,08817 (for LV).

State Aid

The grants for the installation of charging points in dwellings do not constitute state aid. As regards publicly accessible charging stations, these fall under art. 36 of GBER. The semi - publicly accessible charging stations will fall under de Minimis rule. RES and Energy Conservation Fund will follow the definitions of publicly accessibly charging points of Dir 2014/94 EE.

Timeline

Q4 2023: At least 330 charging (including normal, double, fast charging and photovoltaic charging) points purchased and installed in public buildings, in local authorities, SMEs and private households.

Q4 2025: At least 1.200 charging (including normal, double, fast charging and photovoltaic charging) points purchased and installed in public buildings, in local authorities, SMEs and private households.

- **Reform 3: Progressively phase out the most polluting vehicles, especially in polluted urban areas**

The Department of Road Transport (DRT) will prepare and forward for adoption legislation to serve as a legal basis for the adoption of measures relating to the reduction of GHG emissions and other transport pollution.

An extensive public consultation and discussions with local authorities will be concluded during the legislative preparations before the draft legislation is forwarded to the House of Representatives for adoption.

Challenges

As mentioned earlier, transport is responsible for 49% of non-ETS sectors GHG emissions. The sector is further responsible for a high environmental impact in terms of other air, water, soil and noise pollution. This is partly due to the fact that there is a sizeable number of old vehicles in use, which create a disproportionate amount of pollution. Around 80% of the vehicles of the general fleet are of age that predates the EURO 5b standard (74.3% M1, 86% N1, 74.5% N2-3 and 82,5% M2-3 vehicles¹⁹). Vehicles used for freight are older still, since almost 60% of the vehicles used for freight are of EURO 4 standard and under. Additionally, in all vehicle categories, the distribution is significantly skewed towards EURO 4 age or under, with a percentage of 60% and beyond, making the vehicle fleet age a serious challenge.

Transport taxation and other measures currently in place, like technical inspections etc., do not seem to adequately have the capability on their-own, to push towards the use of alternative transport solutions. At the same time, the necessary legal basis is not yet in place for the adoption of more substantial measures and measures deemed necessary to meet the objective to make mobility cleaner.

At the same time, measures of a rather drastic character, having to do with restrictions on commuting behaviour and habits, would create resistance to change. Before the adoption of such measures and as a general rule for their acceptance and successful implementation, there is need for extensive public consultation and discussions with all stakeholders. At the same time, it is necessary to include and implement parallel, supportive and complimentary “bonus” measures, such as the measures foreseen under investment 3, on scrappage scheme and electric vehicles support scheme, to facilitate the acceptance of the “malus” measures to be adopted though this Reform.

Objective

The objective of the legislation is to create the necessary legal basis which will give the power to adopt restrictive measures and other actions, related to the circulation of motor vehicles, with the aim to progressively phase out the most polluting vehicles, as a necessary policy to meet the relevant environmental targets.

Implementation

The Department of Road Transport will draft an initial legislation to serve as a legal basis for the adoption of measures relating to the reduction of GHG emissions and other transport pollution. The draft is expected to be ready in Q1 2022, after initial consultation with the main stakeholders, including local Authorities. The draft will then be published for public consultation.

After the completion of the public consultation, the necessary procedures will be followed (legal vetting etc.) so that the legislation is placed before Parliament, discussed, adopted and published, by Q4 2023. The DRT needs to reach a wide consensus during the consultation process with local authorities and other stakeholders.

Depending on the results of the consultations and the discussions in Parliament, the legal basis will be created by the published legislation, subsequently providing the legal basis to adopt specific measures by a Committee to be set up (e.g. with the representation of the central administration, the local community and other stakeholders as the case may be) and/or through Minister's decisions and/or Regulations.

Specific measures may include low emission zones, no emission zones, applying levies for the circulation of vehicles in certain areas, applying compulsory measures for use of electric vehicles in certain transport operations, applying compulsory measures for the restriction (fully or partly)

¹⁹ [DRT fleet age statistics](#)

of the circulation, in general, of high emissions vehicles (CO² and pollutants), etc. Such measures are usually adopted in a proportionate manner compared to the level of pollution of the area for which the measure will apply, however other general measures may also be adopted in parallel, especially for the reduction of CO² emissions, which are not dependent on the variable of the level of local pollution. A realistic target is the adoption of at least two of such measures by Q2 2026, with the slow rate of implementation of the measures being the risk of this Phase of the Reform.

Timeline

Q1 2022: Draft legislation prepared

Q4 2023: Enactment of legislation regarding the exclusion of polluting vehicles from key areas/operations.

Q4 2025: At least two (2) measures introduced aiming at the exclusion of polluting vehicles from key areas/operations, such as no emission zones, applying levies for the circulation of vehicles in certain areas, applying compulsory measures for use of electric vehicles in certain transport operations or equivalent measures.

Target population

Individual vehicle owners, general population, local administration, enterprises

• Investment 3: Promote widespread use of EVs, LEVs and alternative means of transport

- *Kickstart the transition to Electro-mobility in the government sector.*
- *Support Scheme for the purchase of electric vehicles*
- *Scrapping Scheme for the most polluting vehicles combined with incentives for non/low emission mobility options*

The investment serves as an implementation tool for the wider objectives of Reform 3 described above. It involves measures to promote the purchase of pure Electric Vehicles (EVs), Low Emission Vehicles (LVs i.e. a car of < 50 gr/km of CO₂ - WLTP) and alternative use of transport (e.g. bus, bicycle) while simultaneously removing older polluting vehicles from circulation.

Challenges

Market failures: The cost for the purchase of a new electric vehicle is substantially higher compared to a conventional vehicle. In addition, the consumer concerns regarding the energy autonomy of electric vehicles are intensified by the current lack of the necessary recharging infrastructure.

High number of polluting vehicles in circulation: There is a sizeable number of old vehicles in use, which creates a disproportionate amount of pollution. Almost 80% of the vehicles of the fleet are of age that predates the EURO 5b standard.

Objectives

Promote electro-mobility and the use of LEVs by reducing financial burden while at the same time promote alternative use of transport in exchange of the scrapping of a high polluting vehicle: The investment will provide incentives, by means of grants, for the registration of **pure electric vehicles (Zero Emission Vehicles)**, electric bicycles, LEVs or the use of alternative means of transport.

Promote sustainability: The investment aims at the promotion of future-proof clean technologies to accelerate the use of sustainable, smart transport, zero and low emission vehicles as a vital

step to meet the objective to make mobility cleaner and fairer. This objective is in line with and forms part of the NECP and the National Action Plan for Air Quality.

- ***Kickstart the transition to Electro-mobility in the government sector.***

Implementation

The project will be implemented by the Department of Electrical and Mechanical Services (EMS)

The investment aims to kickstart the gradual replacement of government conventional vehicle fleet with electric vehicles and promote the transition to electro-mobility. This serves as a demonstration project for the promotion of electro mobility to the wider public and businesses. It is estimated that 15% of the government fleet will be replaced by electric vehicles by the end of 2023.

The EMS will purchase via public procurement, one hundred (100) electric vehicles for the needs of the Public Sector and the installation of the relevant charging points at government premises. This represents 5% of government fleet to replace internal combustion engine vehicles.

Accordingly, the Department of Postal Services will purchase the necessary number of electric motorcycles for a complete fleet replacement (100%).

State Aid

The purchase of means of transport for the purposes of the state itself does not constitute state aid. In the case of the Department of Postal Services (DPS) this constitutes state aid, because the DPS is in direct competition with private sector companies. Therefore, the purchase of the DPS motorcycles will be made under Article 36 of the GBER.

Target population

General Government, DPS

- ***Support Scheme for the purchase of Electric Vehicles***

Implementation

The scheme will be implemented by the Department of Road Transport. The Department has the administrative capacity (staff, knowledge and technological tools) to implement the measure. It is planned to be implemented in two steps, with the first call covering the years 2022 – 2023 and the second call the years 2024 onwards. A certain total amount will be allocated to each vehicle category/target group, together with the specific amount of grant for each electric vehicle to be incentivised. The scheme will provide incentives, by means of grant, for the registration of **pure electric vehicles (Zero Emission Vehicles)** and electric bicycles. The criteria to be met by the applicants will be defined in an objective and non - discriminatory manner, avoiding any indirect preferential treatment to one or more manufacturers or representatives.

This scheme, like the scrapping scheme below, is directly linked to Reform 3, “Progressively phase out the most polluting vehicles, especially in polluted urban areas”, as a parallel, supportive and complimentary measure to the “malus” measures that may be adopted through Reform 3, especially measures which will have to do with restrictions to travel using polluting vehicles.

State Aid

The subsidy for private transport does not constitute state aid. In the case of professional vehicles, state aid is present, and the grants will be provided based on Article 36 of the GBER.

Target population

Vehicle users, households, students, businesses, professionals and authorities.

➤ ***Scrapping Scheme for the most polluting vehicles combined with incentives for non/low emission mobility options***

Implementation

The implementing Department is the Road Transport Department of the Ministry of Transport, Communications and Works. The Department has the administrative capacity (staff, knowledge and technological tools) to implement the measure.

The scheme aims to provide incentives to give up older and more pollutant vehicles, in exchange of mobility services. More specifically, the eligible options are:

OPTION 1: the purchase of a LEV (i.e. a car of < 50 gr/km of CO² - WLTP)

OPTION 2: The purchase of an electric bicycle and/or free bus tickets

This measure, like the EVs purchasing scheme, is directly linked to Reform 3, to “Progressively phase out the most polluting vehicles, especially in polluted urban areas”, as a parallel and complimentary measure to the measures that may be adopted through Reform 3. The removal of older vehicles in exchange with incentives to use public transport (bus passes), use electric bicycle or low emission vehicles, will contribute essentially to the reduction of GHG emission from transport as well as to the mitigation of its impact on air, water, soil and noise pollution, thus contributing to the “green transition”. The resulted scrapped vehicles will be recycled according to standards, by licensed recyclers.

The criteria to be met by the applicants will be defined in an objective and non- discriminatory manner, avoiding any indirect preferential. Priority will be given to the oldest vehicles to be scrapped by the applicants.

The scheme is planned to be implemented in two steps, with the first call covering years 2022 - 2023 and the second call to cover years 2024 onwards. Total amount will be allocated to each mobility service category/target group, together with the specific amount of grant for each.

The methodology used is based on historical information of previous calls for proposals issued by the RTD, on data of the mix of current fleet and on available market information regarding the cost and availability of various types of LEV vehicles (<50 gr/km - WLTP) to be funded through the scheme.

State Aid

The subsidy for private transport does not constitute state aid. In the case of professional vehicles, the grants will be provided based on Article 36 of the GBER.

Timeline

Q4 2023: At least 2.050 electric vehicles of categories M1, M2-3, N, L1e-L7e and bicycles, purchased for the Public and the private sector and at least 1000 high emission vehicles scrapped and replaced by electric bicycles, annual bus ticket(s) and low emission vehicles (defined as below 50 grCO₂/km by the Worldwide Harmonised Light Vehicles Test Procedure).

Q4 2025: At least 5.750 electric vehicles of categories M1, M2-3, N, L1e-L7e and bicycles, purchased for the Public and the private sector and at least 3.150 high emission vehicles scrapped and replaced by electric bicycles, annual bus ticket(s) and low emission vehicles (defined as below 50 grCO₂/km by the Worldwide Harmonised Light Vehicles Test Procedure), due to the support provided.

Target population

Vehicle owners, households, students, businesses, professionals and authorities.

Cross-cutting reform introducing green taxation

It is noted that there is complementarity between the Reforms and Investments under the current component 2.2 and the cross-cutting reform introducing green taxation, which is an integral part of Component 2.1: Climate neutrality, Energy efficiency and renewable energy penetration. The “green tax reform” entails, inter alia, the introduction of a Carbon Tax, which will complement the direct investments of component 2.2 by providing the required tax incentives to all market participants to switch to greener options. More specifically, that reform will introduce a carbon tax for fuels used in the sectors of the economy that do not fall under the Greenhouse gas Emissions Trading Scheme. More information on the green taxation reform is included under Component 2.1.

3.4 Cross border and multi-country projects

This component does not include any cross-border or multi-country measures.

3.5 Green dimension of the component

The component’s reforms and investments contribute significantly to promote sustainability and a modal shift towards a greener transport sector and by extension reduce GHG emissions and dependence on fossil fuels.

More specifically, Investment 1 contributes overall to the transition towards more sustainable modes of transport by creating infrastructure to support the use of public transport as well as alternative, green modes like walking, cycling, electric scooters etc.

Although predominantly a measure devoted to the digitalisation of transport, Reform 1 however contributes to the green transition by laying the foundation to revolutionise the transport sector in Cyprus through the establishment of an ITS using Digital Twin technologies. Investing in smart traffic management systems can reduce congestion and travel time, and therefore further decrease GHG emissions.

The reforms and investments in the “electro-mobility and the use of alternative fuels in the transport sector with zero or low GHG emissions” thematic category contribute significantly in the creation of clean urban transport infrastructure and rolling stock. Besides the obvious benefits of reducing GHG emissions produced by vehicles, especially in urban centres, the measures contribute to the creation of green culture and partially to increasing the penetration of RES to the electricity grid.

3.6 Digital dimension of the component

Although the component is focused on promoting sustainability in the transport sector, the “Establishment of an ITS using Digital Twin technologies” is a crucial reform with a substantial digital transition contribution. This measure pursues the digitalisation of the mobility and utility networks, underpinned with a detailed Geographical Information System and extending the coverage of network sensors and telematic technologies to create the CY DG Twin. The information collected and analysed in the geographical based models will be returned to the users for planning their trips, giving them expected travel times, state of the networks and choices on modes. The users will be provided with multimodal door to door trip information and plan their trip and pay in an easy manner. Also, information will be returned to the responsible agencies, such as police and emergency services, to manage effectively incidences and divert users to alternative routes and modes.

3.7 Do no significant harm

In all measures included in this component that foresee construction works and purchase of new equipment, machinery, vehicles etc., all procurement procedures will require compliance with the

DNSH principle as explained in detail in the separate DNSH assessment of the corresponding measure. This will apply both for investments in the public sector and for financial support schemes to the private sector.

See separate assessment performed on this area included as ANNEX 3 - Assessment of the compliance of the Cyprus Recovery and Resilience Plan with the 'Do No Significant Harm' Principle.

3.8 Milestones, targets and timeline

The milestones and targets for the reforms/investments in this component are presented in the attached table.

3.9 Financing and costs

The cost for each milestone and target is presented in the attached table.

3.10 Loan request justification

Reforms/investments under this component will be covered by the grant element of the Plan.

Policy Axis 2 Accelerated transition to a green economy

COMPONENT 2.3 Smart and sustainable water management

4. COMPONENT 2.3 Smart and Sustainable Water Management

4.1 Description of the component

Policy area/domain: Water Resource Management

Objectives:

The national objectives in relation to Water Supply and Sewerage Services focus on ensuring adequate and uninterrupted supply of good quality potable water, maximizing the infrastructure for sewerage collection systems, sewage treatment and reuse of treated effluent to be re-used in agriculture; reducing water supply and distribution system water losses, reducing the non-revenue water and groundwater abstraction, improving operational efficiency of the services being provided to the consumers through technological advances and establishing transparency in financial transactions.

The Component contains a combination of measures relating to the above objectives, as well as three of the strategic goals of the Ministry of Agriculture, Rural Development and Environment (MARDE) in the water management sector: i) promoting green and blue development, ii) protecting the environment while promoting the efficient use of resources and iii) reducing greenhouse gas emissions and adapting to climate change. Additionally, the component's structure and measures were selected to reflect the main findings, recommendations and key measure areas identified in recent studies and reports concerning water resource management in Cyprus.

The proposed measures are also aligned with the four objectives of the "EU Taxonomy Regulation", namely, climate change adaptation, the sustainable use and protection of water and marine resources, transition to a circular economy, as well as pollution prevention and control. Moreover, the component promotes the digital transition by introducing the design and implementation of new technologies and supporting innovation.

The resources devoted to the component will be directed towards a coordinated effort to reform the water resource management towards addressing the most severe deficiencies faced by the sector throughout the years. The expectation is to put forward ambitious, impactful and long-lasting reforms and investments that will pave the way for a complete restructuring of the sector in the years to come.

The component is therefore comprised of a set of interrelated and reinforcing investments under a water management reform aimed to pave the way for the transformation in the field of water resource management towards modernisation and sustainability.

Finally, although not directly related to water management, the component includes an investment of crucial environmental value, which is related to the protection of the marine ecosystem from hazards and the improvement of the level of efficacy as regards the oil spills prevention and response mechanisms.

Reforms:

- Reform 1: Water Resource Management Reform.

Investments:

1. Improve infrastructure and water quality

- Investment 1: Choirokitia-Famagusta Conveyor Replacement;
- Investment 2: Water Treatment Plants (WTP) Upgrade for water quality improvement;

2. Improve water resource management efficiency and operational capacity of the

competent authorities

- Investment 3: Integrated Monitoring and Control Management System for the Water Development Department's (WDD) infrastructure;
- Investment 4: Smart Water and Sewerage Networks Management;

3. Ensure water adequacy and promote adaptation to climate change

- Investment 5: Anti-flood and water collection measures;
- Investment 6: Enhance water security for Nicosia and Larnaca regions;
- Investment 7: Eastern Nicosia infrastructure for wastewater treatment's effluent re-use.
- Investment 8: Protection of the marine ecosystem from hazards and Improve the level of efficacy of oil spill preparedness, prevention and response mechanisms

Flagship initiatives: Modernise, Scale-up, Renovate

Total estimated budget to be funded through the RRP: €87,3 mln

4.2 Main challenges and objectives

Main challenges

Water scarcity and country-specific characteristics: A country of semi-arid climate, Cyprus is one of the “water poor” European countries with limited water resources and frequent occurrence of droughts. It is characterised by many small catchments without significant runoff and directly dependent on precipitations, which are however scattered and expensive in terms of their utilisation.

Water scarcity remains a key feature of Cyprus, having a negative impact on development, the environment, agriculture and public health, while the situation has deteriorated in recent decades as a result of climate change, with frequent and gradually increasing droughts. The Water Stress Index is at 65% (abstraction / availability ratio).

The absence of natural surface water bodies (lakes and rivers) led to over-abstraction of underground aquifers in the past as they provided the only source for water supply. This in turn led to the current situation, where most of the island's underground aquifers are in poor condition. The state, realizing the need to ensure adequate water reserves, proceeded to build a large number of dams, with the aim of collecting rainwater, which otherwise would end up at sea, as well as infrastructure for transporting water to areas with lower rainfall. The latter's main work is the “*Southern Conveyor Project*”. Nevertheless, despite the construction of dams there continued to be a deficiency in water supply, due to changes in annual rainfall patterns and evapotranspiration.

Water balance in Cyprus presents frequent and sharp fluctuations, due to the prevailing climatic conditions. The available water quantities from natural sources depend solely on rainfall, which is however unevenly distributed both geographically and seasonally.

Rainfall was reduced from 503 millimetres in 2000 to 463 millimetres in 2020. The quantity of available water corresponding to the surface area controlled by the Republic of Cyprus amounts to 2.750 mln cubic meters per annum. However, only 10% or 275 mln cubic meters per year can be exploited, given that the remaining 90% is lost due to evapotranspiration.

Year	Water demand (MCM)	Available quantity of water from conventional sources				Enrichment of the water balance from unconventional sources		Total available quantity of water (MCM) [from rainfall] + (from rainfall) + desalinated + recycled	Water balance (MCM) [= Available quantity of water-water demand]	Quantity of water provided for drinking (MCM)
		Rainfall (mm)	Volume of rain (MCM)	Available quantity of water from rainfall (MCM) [Note: Around 90% of rainfall is lost due to evapotranspiration and around 0.02% from run off to the sea]	Water balance (MCM) [= available quantity of water from rainfall-Water Demand]	Quantity of desalinated water (MCM)	Quantity of recycled water (MCM)			
2010	257	429	2570	197	-60	53	12	262	5	82
2011	258	558	3348	265	7	49	14	328	70	81
2012	259	790	4737	404	145	18	17	438	179	80
2013	260	295	1770	117	-143	11	17	145	-115	78
2014	261	393	2358	173	-88	33	17	222	-39	80
2015	262	484	2904	228	-34	38	17	284	23	82
2016	263	430	2580	198	-65	69	19	285	22	90
2017	264	326	1956	136	-128	69	20	224	-40	94
2018	265	607	3642	300	35	70	21	391	126	95
2019	266	797	4782	405	139	55	24	484	218	94

Source: Water Development Department

The average annual quantity of 275 mln cubic meters (MCM) of water is allocated broadly in a ratio 1:3 as regards to surface: ground water storage, respectively. From the ground storage, approximately 1/3 is lost at sea.

The deterioration of rainfall and surface run offs in the last decades has resulted in the depletion of ground waterbodies and the reduction of inflows to the dams. At the same time, demand for water has increased, as a result of the social and economic development, the increase of tourism and permanent population. To address the shortage of water, two non-conventional sources of water are nowadays part of the Cyprus water balance: desalination of seawater and the re-use of wastewater from the tertiary treatment of sewage plants. Desalinated water is used to complement the water balance, whilst tertiary treated wastewater is used in irrigation of agricultural cultivations and green areas. However, desalinated water, besides being expensive, is also energy-intensive to produce.

DESCRIPTION	DHEKELIA EXTENSION	LARNACA REFURBISHMENT	LIMASSOL	VASILIKOS
Contract type	Built, Own, Operate and Transfer (BOOT)	Built, Own, Operate and Transfer (BOOT)	Built, Own, Operate and Transfer (BOOT)	Purchase Contract
Start of production	20 May 2007	3 July 2015	1 July 2012	1 August 2013
Period	20 Years	25 Years	20 Years	20 Years

Capacity	60.000 m ³ /day	60.000 m ³ /day	40.000 m ³ /day	60.000 m ³ /day
Minimum daily production	54.000 m ³	54.000 m ³	36.000 m ³	54.000 m ³
Minimum yearly production	19.710.000 m ³	19.710.000 m ³	13.140.000 m ³	19.710.000 m ³
Purchase price of water (Contract Values)	€0,69/ m ³	€0,59/ m ³	€0,87/ m ³	€0,81/ m ³
Adjusted price for 2020 (electricity tariff, labour and fuel index)	€0,97/ m ³	€0,54/ m ³	€1,02/ m ³	€0,93/ m ³

Source: Water Development Department

Water loss and non-revenue water: The percentage of non-invoiced water for the Southern Conveyor Project is estimated by the WDD at 15% of the total water quantity supplied for irrigation purposes. According to scientific literature, the non-revenue water percentage for an effective water network should range between 10% - 12%. The percentage of non-invoiced water for the three main Water Boards in Cyprus (Nicosia, Limassol and Larnaca) ranges between 25% - 30%, although this varied in the recent years due to integrations of smaller water councils. However, the most significant non-revenue water issue is at the community and municipality level, where the mean percentage is around 40%.

Global climate conditions: The Mediterranean basin has been identified as one of the world's regions most vulnerable to climatic and anthropogenic changes. Climate models predict rise in temperature and increase in the intensity and frequency of extreme drought events. Since water is the most important shared resource, global challenges emerge and shape trends in the water industry. The International Water Association (IWA) recognizing this has published a compendium of hot topics and features, identifying emerging topics, questions, trends and challenges (IWA, 2016). These include:

- a) Alternative non-conventional Water Resources. The increasing divergence between water resources and demands all over the world highlights the need for more reliable and resilient water supplies by alternative non-conventional means to reach an appropriate and sustainable resources/demand balance
- b) Governance and Regulation. Water governance is about the way the management of water resources is guided and organised. Its importance for human society has risen under global challenges such as climate change and water scarcity.
- c) Resource Recovery from Water. The importance of water conservation, source separation, energy efficiency, and resource recovery from water and wastewater systems are becoming more globally recognised, due to contemporary environmental, economic, and ecological challenges.

They all target to the greater challenge of Sustainability in the Water Sector as a measure for adaptation to climate change. The challenges in maintaining sustainable, innovative and reliable water services, while protecting the precious natural resource are especially evident in the case of Cyprus, due to its geographical and climate characteristics. Climate change caused a drop of 20% in precipitation resulting in a 40% reduction in surface runoff. Implementing a sustainable and efficient water policy is the key challenge for Cyprus.

Ageing infrastructure and Technological gap: Ageing and inefficient water network infrastructure is vulnerable to unreliable, inefficient and occasionally hazardous operation. Old infrastructure also contributes to high amounts of non-revenue water produced at high cost, system failures, leakages, losses and interruptions in supply and distribution. Although there have been successful efforts to import and adopt new technologies by the main water management actors, there is still plenty of room for improvement and expansion. This includes introducing and adopting smart and innovative technologies for tackling the challenges in the field such as improving network monitoring, gauging, consuming habits and demand, consumer self-monitoring etc.

Main Objectives

Reduce Water Leakage, Non-Revenue water and improve infrastructure: Water loss is the difference between the quantity supplied and the authorised consumption, whether billed or not. It consists of both actual and physical losses, resulting from leaks, pipe breaks or tanks overflows in the network occurring up to the consumer's water meter, as well as from apparent losses, relating to any kind of counting inaccuracies, as well as to any unauthorised and non-billed consumption (due to illegal connections and theft of water). Billed water is the water for which invoices are issued, whether it was measured by water meters or calculated by the water authority, while unprofitable water refers to the difference between the quantity supplied and the billed quantity of water and consists of the total amount of water losses (real and apparent), now the amount of unpaid authorised consumption.

The measures included in the component contributing to reducing water loss by:

- Upgrading existing infrastructure;
- Ensuring and improving water quality and preventing water pollution;
- Optimisation of Water and Wastewater Treatment Plants operations;
- Contribute to the implementation of the Water Development Department's (WDD's) Action Plan for efficient water use and to reduce water losses.

Improving the functionality and water management capacity of the competent authorities:

Upgrading the administrative capacity, functionality and performance of the water management authorities is a necessary premise for the achievement of the wider objectives in the field. The component includes particularly ambitious measures focused on:

- Accurate and detailed water measurement and monitoring of groundwater abstraction through Automatic Meter Reading (AMR);
- Increasing public awareness on water-saving and sustainable water use;
- Measures for efficient water consumption in both agriculture and households and promote water reuse;
- Efficient management and monitoring of the conveyance and distribution networks.
- Smart water metering for data collection and process optimisation;
- Addressing water losses and leakages;
- Strengthen the effective governance for water.

Ensure water adequacy and adaptation to climate change: Adaptation to climate change pertains preparation for extreme weather conditions. This includes measures to withstand and reduce damages from storms, droughts and floods, as per the following main objectives to be addressed:

- Enhance water availability with new infrastructure projects including both conventional and non-conventional water sources;
- Increase the capacity and efficiency of existing infrastructure projects;
- Increase reliability of water supply;
- Increase operational efficiency and maintain existing infrastructure;
- Improve existing and implement new anti-flood measures in high flood risk areas.

Green and Digital Transitions: The component is especially focused on the twin transitions either by utilizing new technologies to improve operational efficiency, reduce energy and carbon footprint or with direct green measures. The measures serve the relevant objectives listed below:

- Reduce the energy consumption of water treatment facilities and procedures;
- Increase RES penetration by utilising the water treatment facilities;

- Reduce the Greenhouse Gas (GHG) emissions produced by water treatment facilities;
- Reduce the energy requirements in potable water production and distribution;
- Employ new, innovative and smart technologies.

CSRs addressed

Reforms /Investments	Year / CSR Numbers Recitals	Justification
Water Management Reform		
Reform 1: Water Resource Management Reform	CSR 4 2019, Recital 13 CSR 3 2020, Recital 23	The water management reform aims to introduce more efficiency in administrative capacity, consolidate and employ pricing policy for more rational usage of water. Pave the way to implement investments to introduce new technology for smart and sustainable water management.
Measure category 1: Improve infrastructure and water quality		
Investment 1: Choirokitia- Famagusta Conveyor Replacement	CSR 4 2019, Recital 13 CSR 3 2020, Recital 23	Replace ageing infrastructure to ensure that the supply, treatment and distribution of water intended for human consumption is subject to a risk-based approach that covers the whole supply chain from the catchment area, abstraction, treatment, storage and distribution of water.
Investment 2: Water Treatment Plants (WTP) Quality Upgrade	CSR 4 2019, Recital 13 CSR 3 2020, Recital 23	Upgrade water refinement infrastructure to ensure water quality.
Measure Category 2: Improve water resource management efficiency and operational capacity of the competent authorities		
Investment 3: Integrated Monitoring and Control Management System for the Water Development Department's (WDD) infrastructure	CSR 4 2019, Recital 13 CSR 3 2020, Recital 23	Increase the capacity/efficiency of the Water Development Department to closely monitor and control a large number of different, critical functions and parameters
Investment 4: Smart Water Networks Management	CSR 4 2019, Recital 13 CSR 3 2020, Recital 23	Increase efficiency in the wastewater, water management and capacity of water management authorities to improve network monitoring, reduce non-revenue water and improve services.
Measure category 3: Ensure water adequacy and adaptation to climate change		

Investment 5: Enhance water security for Nicosia and Larnaca regions	CSR 4 2019, Recital 13 CSR 3 2020, Recital 23	Improve water supply security by increasing water storage capacity and reduce risk of water interruptions.
Investment 6: Anti-flood and water collection measures	CSR 4 2019, Recital 13 CSR 3 2020, Recital 23	Climate change adaptation measures to create or upgrade existing anti-flood infrastructure, accompanied with environmental and water re-use measures.
Investment 7: Eastern Nicosia infrastructure for wastewater treatment's effluent re-use	CSR 4 2019, Recital 13 CSR 3 2020, Recital 23	Reduce amount of wastewater that discharged without collection or treatment.
Investment 8: Protection of the marine ecosystem from hazards and Improve the level of efficacy of oil spill preparedness, prevention and response mechanisms	CSR 4 2019, Recital 13	Prevention and mitigation of possible environmental disaster, especially due to the recent increased drilling activity in the area.

4.3 Description of the reforms and investments of the component

Reforms

- **Reform 1: Water Resource Management Reform**

The component is comprised of a set of interrelated and reinforcing reforms and investments aimed to transform the field of water resource management towards modernisation and sustainability. More specifically, the component employs an overall water management reform aiming to aid the relevant stakeholders to implement good practices for improving the management of this valuable and scarce good.

It is noted that the “Green Taxation” reform included in Component 2.1 “Climate neutrality, Energy efficiency and renewable energy penetration” will also entail the gradual introduction of a levy on water that will reflect the scarcity of this natural resource and the cost to the environment of its use, as well as the introduction of a country wide charge on household/landfill waste and a carbon tax for fuels.

Challenges

Disparities in resources between the various water management authorities: Each water management authority, be it a Water or Sewerage Board or local administration faces different financial, resource and technical constraints, advantages or disadvantages. This fact contributes to increased non-homogeneity between pricing policies as well as the functionality and profitability of each agency. The reform aims to provide the policy directions as well as the relevant technical assistance to reduce these disparities and improve coordination.

Stagnation in reform measures adoption: From time to time, several studies have been commissioned in order to identify and implement necessary reform measures in the field of water resource management. However, the progress has been relatively small. The reform proposed aims to utilise the opportunity by applying momentum to push the proposed best practices forward for tangible implementation.

Objectives

The reform aims to push forward actions addressing structural weaknesses in the water resource management in Cyprus. The established Working Party intends to serve as a body for cooperation between the various water management authorities with a common purpose to improve efficiency and sustainability. However, at the same time it will also serve as a coordination and monitoring body for the implementation of the investments and actions to be proposed.

Implementation

A High-level Working Party led by the Ministry of Agriculture, Rural Development and Environment with participants from the Ministry of Interior, Ministry of Finance, DG EPCD and all Water and Sewerage Boards as well as Local Administration coordinative bodies to represent all stakeholders in national water management. The Working Party will initially proceed to a literature review of the major and most relevant studies for the field, in order to identify and propose an action plan with the necessary regulatory and adaptation measures to be promoted within the next 10 – 15 years, based on the three measure categories included in the component. The Working Party will follow-up with coordination and monitoring of the implementation of the action plan and providing the necessary technical assistance to the relevant water management authorities for the implementation of the reform measures as well as the investments included in the component. Furthermore, the Working Party will follow a multi-stakeholder and collaborative approach to promote coordination and cooperation between all the relevant stakeholders.

Although expected as a product of the working party's work, the main areas of measure, as also identified by the preliminary work done so far, are expected to be the following:

(A) Assist the merging of District Water & Sewerage Boards:

1. Memorandum of Understanding & Cooperation between Water Boards to achieve the following common targets for improved operational capacity:
 - Improve water storage capacity (48 hours capacity)
 - Ensuring the quality of water in distribution network (water quality sensors)
 - Improve water distribution and supply processes with introduction of new and innovative technologies
 - Creation of Digital Twins
 - Minimise the percentage of Non-Revenue Water
 - E-Billing and E-Customer care
 - Expansion of the existing Water Boards to provide services within their entire district
2. Memorandum of Understanding & Cooperation between Sewerage Boards to achieve the following common targets for improved operational capacity:
 - Transition of Sewerage and Drainage Boards into smart, digital and green organisations.
 - Increase energy efficiency.
 - Ensuring the population health by reducing of the concentration of dangerous substances within wastewater.
 - Improve collection system and WWTP with introduction of new and innovative technologies
 - Creation of Digital Twins
 - Reduction of Hydrogen Sulphide (H₂S) from within wastewater network.
 - E-Billing and E-Customer care
 - Expansion of the existing Sewerage Boards to provide services within their entire district.
3. Implementation of preparatory studies:
 - Development of a unified methodology and implementation of an information system to collect the financial and operational performance indicators from Water & Sewerage Boards.
 - Development of a pilot study to assess water losses and the rate of Non-Revenue Water in small Local Water Authorities and investigate the best technical solutions for upgrading water supply networks.
 - Preparation of feasibility and institutional framework study for the creation of the Organisation for the operation and management of water supply, irrigation, solid and wastewater infrastructures of the Troodos Mountain Communities.

Final Target: Merge the District Water & Sewerage Boards.

(B) Reduce Non-Revenue Water

- Risk assessment and risk management of the catchment areas
- Risk assessment and risk management of the supply system
- Assessment of water leakage levels using the Infrastructure Leakage Index, or other appropriate method, covering at least Water Authorities that supplying at least 10.000 m³ per day or serving at least 50.000 people.

Final Target: Compliance with recast Drinking Water Directive EU 2020/2184.

(C) Improve water reuse

- o Risk Management Plan for the disposal of treated wastewater in agriculture.

Final Target: Compliance with the new regulation EU 2020/741.

(D) Enhance the safety and sustainable operation of WDD's infrastructures:

- o Assessment condition studies for large dams.
- o Evaluation of the performance of large Water Governmental Projects that complete more than 30 to 40 years of useful life.
- o Water policy review study.
- o Implementation of quality management system according to ISO 9001.

Final Target: Enhance the WDD's operational capacity in water management

Final Step: Approval by the Council of Ministers of the 15-year "Cyprus National Water Management Action Plan."

Target population

Water Management Authorities, General population.

Timeline

Q2 2025: Adoption of an action plan on water resource management with regulatory and adaptation measures. The objectives of the suggested action plan will be: (1) to assist the merging of District Water & Sewerage Boards, (2) to reduce non-revenue Water, (3) to improve water reuse (4) to enhance the safety and sustainable operation of Water Development Department's infrastructures.

State Aid

The reform is implemented within the framework of the state authority for the public benefit and does not constitute state aid.

Measure Category 1: Improve infrastructure and water quality

- **Investment 1: Choirokitia- Famagusta Conveyor Replacement**

Challenges

Outdated infrastructure: The Choirokitia - Famagusta Conveyor, of a total length of 73.5km long, was initially designed and put into operation in the 1970s to transfer potable water from Choirokitia Water Treatment Plant to Famagusta area. The severe depletion of underground water resources, where the majority of Communities based their water needs, forced connection to the conveyor of nearly all Communities along its route. These connections, which are out of the original design scope, have brought the conveyor near or beyond its service limits. In addition, the increase in drinking water needs has further aggravated its operational situation, so that today it marginally meets the needs of the Communities.

The Choirokitia-Famagusta Conveyor is considered a strategic conveyor, since it serves the Larnaca and Famagusta Districts, transferring water from different sources, such as the Water Treatment Plants of Choirokitia and Tersefanou and the Desalination Plants of Larnaca, Dhekelia and Vasilikos. Its proper operation is vital to support Desalination Plants and Water Treatment Plants uninterrupted operation and continuous coverage of the water demand.

The long service age (about 50 years), renders the conveyor vulnerable to unreliable operation mainly associated with the following:

1. Mechanical parts (valves, washouts, air valves) are the original and need to be replaced as they have passed their age service limit.
2. The material (asbestos - cement), has long been abandoned for the construction of new conveyors many years now, rendering its maintenance difficult and time consuming.
3. Many accessories and connections to the conveyor are made of steel and a progressive corrosion is observed, making it vulnerable to failures and leakages.

Water loss: The conveyor is the oldest main water pipeline made of AC (asbestos pipe) material and its replacement is considered necessary due to the problems that occur during its operation.

Specifically, for the section of the pipeline to be replaced under this investment, there is a loss of around 7,000 m³ / month or 11 m³ / km / day. This corresponds to about 85,000 m³ / year and a water loss percentage of 9.5%. Considering that the condition of the pipeline is the same in its entire length (73.5Km) and based on the average annual quantities transported by the pipeline to all users (20,000,000 m³) it is estimated that the total annual water loss from the pipeline amount to 1,900,000 m³ / year.

Frequent failures and high maintenance cost: In addition, during the period 2010 - 2020, there were a total of 34 significant failures in the pipeline, which led to the interruption of water supply until their restoration. Rehabilitation of the pipeline in such cases is particularly difficult and time consuming, as it involves issues such as the management of asbestos residues, the use of special fittings to connect new types of pipes to existing ones and difficulties in access due to developments. It is also noted that several parts of the pipeline are made of iron, which is particularly damaged and is one of the reasons for failures and losses.

As the pipeline ends in the Province of Famagusta and serves tourist areas, the presence of failures during the summer months, when the pipeline is at its peak, creates serious problems for consumers and the communities' water supply networks. The severity of the effects of such interruptions in the supply, requires replacement to increase the reliability of the operation of the system.

Objectives

Technical efficiency: Increase the drainage of the duct by installing a larger diameter duct. There is a possibility of connection with the Tersefanou - Nicosia pipeline for the transfer of quantities of water to Nicosia. It is possible to transfer all quantities of desalinated water from the Vasilikos Desalination Unit, in order to ensure the optimal utilisation of the various water sources and the safety of the water supply.

Minimise water losses and the occurrence of failures: from the installation of a new ductile iron pipe, as is the usual practice in recent years, to replace 50-year-old asbestos pipes.

Improve water quality: by mixing desalinated and refined water before it reaches the final consumers.

Achieve energy savings: since it will be possible to meet the needs of the Famagusta Province from the new Choirokitia Water Treatment Plant. The new WTP will drive water utilizing gravity without any intermediate pumps. Today, the mentioned area is serviced exclusively by pumping with significant energy costs.

Improve water supply security: for the Province of Famagusta since it will become possible to connect the Choirokitia - Famagusta pipeline with the new Kokkinokremmos Water Project, located in the District of Famagusta and is currently under implementation. The maximum benefit from the implementation of the project is the enhancement of the reliability of human water supply to consumers in 3 provinces (Nicosia, Larnaca and Famagusta) due to the interconnection of different sources of drinking water production (Vasilikos and Dhekelia Desalination Plants, Choirokitia and Tersefanou WTPs and Desalination).

Implementation

The Water Development Department (WDD) will initially conduct all the necessary preliminary work, like topographical studies, permissions and environmental impact assessments etc. This will be followed by the design period where a team of experts will plan the implementation of the work and eventually the WDD will assign the construction works to a contractor selected via the public procurement procedures.

Target population

The new conveyor will be able to serve the rural, urban and suburban areas of Larnaca and Famagusta Districts.

Timeline

Q3 2023: Preparation of tender documents and issue call for tenders following the completion of detailed design of conveyor replacement, including bill of quantities by quantity surveyor, topography, permits, other technical and environmental studies and licensing.

Q2 2026: Installation of new pipeline with total length of approx. 20 km.

State Aid

WDD is an integral part of the state and a legal monopoly on its activities. It is not active in other markets and its infrastructure will not be outsourced to a third party following a tender. In addition, the services it offers are not in competition with other services. Therefore, any aid to the WDD does not distort competition and does not constitute State aid.

- **Investment 2: Water Treatment Plants (WTP) Upgrade for water quality improvement**

Challenges

In addition, because Asprokremmos WTP works marginally to its maximum production capacity during the summer months, it is necessary to expand its capacity by 10,000 m³ / day, in order to meet the needs of drinking water supply to the electromechanical equipment due to the excessive operation, problems which exist with the present operating conditions of the WTP.

Water Quality: The Kornos, Limassol, Tersefanou, Asprokremmos and Kannaviou Refineries constitute the total number of active refineries in Cyprus, built in 1985, 1993, 2000, 2003 and 2012 respectively. In recent years, the facilities faced various equipment problems resulting from the prolonged operation at their maximum capacity due to increasing water needs, especially during the summer months. In addition, in some occasions water quality was deteriorated with the presence of THMs (trihaloethane) and substances that cause bad odours and taste in water. These problems are mainly due to the increased presence of total organic carbon as well as new species of algae (Blue Green Algae), as a consequence of climate change weather phenomena like prolonged drought periods and the resulting drop in dam levels (e.e. 2018).

Situations like the one described above require increased water refinement at the treatment plant and thus higher processing power, with partially satisfactory results, especially with older filtering technologies. This poses new challenges regarding the treatment of drinking water at the refineries.

Objectives

The refurbishment and upgrade of the refineries includes their modernisation with new technologies with the ultimate goal of improving water quality, reducing the cost of drinking water production, reducing energy consumption, the automation of facilities and the protection of the environment and marine life which is adversely affected by the extended operation of desalination plants. The technologies proposed for installation concern on-site chlorine dioxide

production units, which will replace the on-site sodium hypochlorite production units, as well as activated carbon processing units.

Secure uninterrupted water supply and distribution: In the case of Limassol, Tersefanou and Asprokremmos water treatment plants, operation cannot be intermittent, as there is absolute need of daily contribution to the water balance of their distribution areas. Failure of the plants will lead to failure to cover the daily water consumption needs, as there are no alternative water supplies, adequate and proper to cover the total needs of the respective areas. As such, water cut-off measures must be implemented with the socioeconomical consequences that such measures entail.

Reduce production cost, CO₂ emissions and conserve energy by reduction of desalinated water use. Most WTPs' age exceeds 25 years. Therefore, the technology installed is in many cases obsolete and most of the machinery have low energy efficiency. The replacement of the equipment with the latest generation, high efficiency equipment, will result in power cost reduction due to the conservation of energy and hence contribution to the target of CO₂ emission reduction. Moreover, it is noted that the WTPs' energy consumption is significantly reduced (0,5 Kwh/m³) in comparison to that of the Desalination Plants (3.5 Kwh/m³).

Implementation

The WDD will implement the following technological refurbishment to maintain the ability of the water treatment plants to produce top quality water by:

- Replace the existing chlorination infrastructure for all five WTPs. The last upgrade was done in 2004 – 2006 by replacing the extremely dangerous gaseous chlorination system with the safe and equally efficient On-Site Electrolytic Chlorination. Although, the systems have been well maintained throughout this period, they have now reached their maximum life expectancy and should be replaced. In addition, due to changes in the quality of raw water, the need arises to move on to technological advances, such as disinfection by Chlorine Dioxide or by Ozonation.
- Installing activated carbon polishing units for Limassol, Asprokremmos and Tersefanou WTPs at the end of the water treatment plant process, to refine and remove unwanted substances and to achieve the strictest quality parameters.
- Construction of the necessary infrastructure and install equipment to extend the capacity of Asprokremmos Water Treatment Plant by 10.000 m³/day. Upgrade the monitoring and control system (both hardware and software) and automation system of the Asprokremmos WTP.

Target population

All urban and sub-urban population in areas connected to the National Water Supply System in Nicosia, Larnaca, Famagusta, Limassol and Paphos Districts.

Timeline

Q1 2024: "Completion of the works for installation of Activated Carbon polishing units of

- a) 30.000 m³/day capacity for TERSEFANOU Water Treatment Plant;
- b) 30.000 m³/day capacity for the ASPROKREMMOS Water Treatment Plant; and
- c) 20.000 m³/day capacity for LIMASSOL Water Treatment Plant."

Q4 2025: Completion of works resulting in the extension of the capacity of the Asprokremmos Water Treatment Plant by 10.000 m³/day, including upgrading the monitoring and control system and also the automation system.

State Aid

WDD is an integral part of the state and a legal monopoly on its activities. It is not active in other markets and its infrastructure will not be outsourced to a third party following a tender. In addition, the services it offers are not in competition with other services. Therefore, any aid to the WDD does not distort competition and does not constitute State aid.

Measure Category 2: Improve water resource management efficiency and operational capacity of the competent authorities

• Investment 3: Integrated Monitoring and Control Management System

The Water Development Department's (WDD) mission

The Water Development Department (WDD) has a leading role in Cyprus' water sector. It is responsible for the protection and sustainable development as well as the efficient management of the water assets of the country, in harmonisation with European and National legislation and within the framework of the Government water policy in force. Its mission includes several objectives and cover a wide range of actions to ensure water demand coverage for all uses, to encourage the efficient use of water resources and ensure the quality and protection of water sources and the environment.

The Department is responsible to design, build, operate and maintain all major infrastructure projects e.g. Water Dams, Water Treatment Plants, Desalination Plants, Conveyors and Large Pumping Stations and acts as a bulk water supplier to Water Boards and other large consumers. In order to effectively fulfil its mission, a large number of sensor data needs to be collected, modelled and analysed, and be used in decision making.

The main feature of the proposed investment is the installation of smart monitoring infrastructure, linked with an innovative integrated platform for data-driven decision-making and analytics. In addition, this infrastructure can be used for training and educational purposes by technical schools, as well as for research purposes by the Universities in Cyprus and other research organisations.

Challenges

Need for increased monitoring capacity: The Water Development Department needs to closely monitor and control a large number of critical functions requiring significant resources and highly trained personnel. Furthermore, the vast amount of information flow from sensors and interconnected systems makes the process of data collection and analysis a formidable task. In order to meet the high-level goals to protect the environment and mitigate climate change it is necessary to utilise state-of-the-art technology in big data and data analytics as well as sensors and communication devices.

Energy intensive operation: The need for the production of desalinated water constitutes the WDD as one of the largest consumers of electricity on the island; around 4% of the generated electricity is used for water production and pumping; a percentage expected to grow due to the growing need for water production and distribution, making it imperative to closely monitor energy efficiency across the WDD infrastructure and strive to retain it at high levels.

Water quality monitoring: At the same time, the WDD is responsible for monitoring water quality for drinking water (in both urban and rural areas), irrigation, tertiary treatment as well as surface (lakes and rivers) and groundwater to determine the state of the environment; this is a significant challenge which requires significant resources and highly trained human capital.

Natural disaster risk assessment and mitigation: Moreover, the WDD is responsible to assess flood risk, monitor floods in real time and take measures against flood events that can threaten human life and have a significant impact on the local economy and society in general.

Cybersecurity: This subsystem will be essentially the tool that will monitor computer networks (network equipment, data transfer, etc.) to detect traces of malware and generally unauthorised activity. It will have the ability to react automatically in the event of a cyber-attack. The subsystem will include the creation of a modern data centre for secure data storage and a corresponding disaster recovery site with backups so that the operational continuity of the organisation is guaranteed in case of cyber-attack and even natural disaster (fire, earthquake, etc.). The system will include physical security of the infrastructure with the installation of systems to indicate illegal entry into the WDD infrastructure (e.g. motion detectors, cameras, etc.).

Objectives

Increase operational capacity: The installation of a large number of sensors will enable the WDD personnel to monitor in the real time the state of the environment (aquifers, rivers, lakes etc), the state of its various water networks (operational characteristics as in pressures, flows and reservoir levels and energy efficiency) and water quality. The collected data can furthermore be modelled and analysed in order to be used in decision-making including risk management and forecasts, thus increasing the department's administrative and operational capacity.

Reduce the risk of business disruption by securing the various systems against cyber-physical attacks. It is worth mentioning that the WDD has been characterised by the Cyprus National CSIRT as "Critical Infrastructure of the Republic".

Reduce energy consumption and GHG emissions by increasing efficiency: The employing of renewable energy sources and energy storage (investment in Component 2.1) along with energy efficiency monitoring and the increased capacity will lead towards the reduction of the WDD's energy consumption, which has a sizeable impact on the national energy consumption (currently around 0,4%).

Reduce non-revenue water in irrigation by improving infrastructure and monitoring capacity: A side benefit fit of managing water demand is the minimisation of non-revenue water through mass balancing and leak detection techniques. Besides the improvement of its own monitoring capacity, the investment can have positive spill-over effect to the severe problem of non-revenue water in communities, due to inconsistent and ineffective monitoring. By providing accurate data to the communities, they will be able to take more accurate measures to reduce non-revenue water.

Adaptation measures: To reduce the high-impact risk of contamination events by 80% and to reduce the impact of prolonged drought events by closely managing water resources and forecasting.

Implementation

The investment will be a joint venture of the Water Development Department and KIOS Research Excellence Centre of the University of Cyprus which are experts in monitoring, controlling, securing and managing critical infrastructure systems. The integrated platform will be composed of a number of subsystems where each of them will address various key challenges, including water quality, flood management, water demand management and water allocation for irrigation purposes, energy efficiency as well as cyber-physical security. Specifically, this project includes the following subsystems:

Emergency Management System:

1) Installation of 500 hydraulic and quality sensors to be installed in all the lakes, reservoirs, rivers, as well as in the water transport network, up to the level of the communities. These include, sensors to monitor water quality (chlorine, pH, TOC, THMs, etc.), flood sensors, flows and pressure and reservoir levels. The sensors will communicate the data to a centralised platform

using advanced telecommunication protocols (e.g., NB-IoT, LoRaWAN, 5G etc). These data will be analysed by a GIS-based emergency management system, which will provide alerts in relation to water quality anomalies and floods developing.

2) Installation of energy meters to monitor the energy consumption of pumping stations that will be transmitted and stored in a database. By analysing the information stored in the database metrics or Key Performance Indicators (KPIs) can be developed (e.g. kWh/m³/100m) enabling the assessment of the energy efficiency of the WDD's infrastructure and compare it with energy efficiency KPIs. The system will enable the timely replacement of inefficient equipment by performing online energy audits. A side benefit would be that by monitoring energy consumption equipment failures could be predicted and proactive measures can be taken (predictive maintenance). Furthermore, advanced methods will be used for monitoring these systems, and access of data shall be given to research and innovation academic and research institutions, to be used for training and research. At the same time, the generation of energy from renewable sources and storage of energy using hydraulic dynamics will also be exploited.

This system will contribute to the Emergency Management System and Water Demand & Irrigation Management System mentioned above and will aid in the monitoring and assessment of the subsequent WDD's proposals for replacing 150 electrical motors with more efficient ones and installing PVs of capacity 1,4MWp approximately (investment included in Component 2.1).

Water Demand & Irrigation Management System:

This system is comprised of a software platform, linked with intelligent analytics and methods which help the decision-making process in relation to the production of water from different sources (desalination and treatment of water from dams), considering water security and climate change, cost of water production across different systems, drought forecasts etc. In addition, this system will also support decision making for irrigation water allocation through an advanced ICT platform, which connects farmers with the policy makers. New sensors will be installed to monitor the quality of the underground water reserves and determine the amount of water that can be added to the water balance.

Security Management System:

This system focuses on the cyber and physical security challenges. This system will provide the end users with tools that they can use for enhancing the protection of existing and new ICT systems against advanced persistent threats, cyber-attacks and terrorist attacks.

Complementary Activities: In addition to the above infrastructure, a number of key activities will also be implemented, in order to multiply the effect of this project. Specifically, this includes the:

- Facilitation of the collaboration with the Universities and the Research Centres to advance knowledge and create new Intellectual Property.
- Collection and releasing of Open Data, and organisation of events (e.g., competitions) for solving challenges focusing on the needs of the WDD, and therefore cultivating a new generation of water engineers and water systems analysts.

Provision of practical experience to students in technical schools as well as in the governmental higher technical school (<http://www.mieek.ac.cy>), through internships and other placement programmes, in which students align their studies with the needs of the WDD.

The project will be implemented by the following sequence of actions:

- Consultancy services for detailed requirement analysis
- Procurement and Installation of equipment
- Implementation, Assessment and Commissioning of IT Sub-systems

Target population

This project targets the public through the increase in the quality of the services it receives (water quality, flood risk assessment and warning etc). It further targets Universities, Research Centres, and SMEs that will all be asked to contribute towards the goals of this projects, as well as students that will be trained through this project on water related technologies and management.

Timeline

Q2 2022: Completion of Detailed Requirements Analysis and System Design for an emergency, demand, energy and security water management system.

Q1 2024: Delivery and installation of at least 50% of the total number of units that are prescribed in the Detailed Requirements analysis and system design (quality sensors, communication devices and quality meters).

Q2 2026: Completion of a fully functional Integrated Monitoring and Control Water Management System.

State Aid

The WDD is an integral part of the state and a legal monopoly on its activities. It is not active in other markets and its infrastructure will not be outsourced to a third party following a tender. In addition, the services it offers are not in competition with other services. Therefore, any aid to the WDD does not distort competition and does not constitute State aid.

• **Investment 4: Smart Water and Sewerage Networks Monitoring**

- Transition of Larnaca Sewerage and Drainage Board (LSDB) into a smart and green Organisation
- Adoption of smart technologies to improve the efficiency of Larnaca Water Board (LWB)
- Limassol Smart Water Network

Challenges

Increased administrative needs: In recent years the three Water Management Authorities have experienced a significant expansion of their administrative district and consumer base. At the same time, their administrative capacities remained constant, posing a significant challenge for the organisations' efforts to provide good quality services and to promote sustainable water management.

Water leakage and non-revenue water: Due to the old infrastructure and the limited network monitoring capacity, there is a significant amount of water leakages as well as non-revenue water. In the case of Larnaca Water Board, 80% of the distribution network consists of asbestos cement pipes and at the same time some pipes have not been replaced since 1950, when they were installed. This condition contributes to a lack of collective and effective control and management of the network. The mean percentage of non-invoiced water in Cyprus amounts to 25% of the total amount of water channelled into water networks.

Energy efficiency: Water resource management is one of the most energy intensive fields in Cyprus, especially since the source of energy is mainly fossil-fuel based. Energy for water and waste-water treatment is the dominant cost, contributing significantly to climate change factors. This is intensified by the use of outdated equipment like pump technologies, making it necessary to turn to new more energy efficient technological solutions. This creates the need to turn to direct energy effective solutions like Renewable Energy Sources, as well as indirect solutions such

as better understanding energy use to identify areas of improvement and improve operational efficiency.

Treated Wastewater Quality: As pointed by the 2016 Auditor General's *Performance audit on the management of water resources in Cyprus*, "water produced by the Larnaca sewage treatment plant contains almost twice the allowed quantity of salts, a fact attributed to seawater intrusion into the Larnaca aquifer, where the wastewater transfer network to the station has been constructed." Moreover, the infiltration of sea water/ground water, increases the energy required to transfer and treat the wastewater which is something that reduces the efficiency of the sewerage networks. New technologies are required to increase their efficiency. This can be achieved with early detection of damaged pipelines within the network. Additionally, one health challenge to be addressed explicitly by the investment is the build-up of hydrogen sulphide gas in the wastewater network, which is toxic for human health and its bad odour released in urban areas is causing disturbance and public health concerns.

Objectives

Digital Transition: The investment comprises of a series of smart and digital upgrades for the Limassol (WBL) and Larnaca (LWB) Water Boards and Larnaca Sewerage and Drainage Board (LSDB) such as:

- Automated Meter Reading;
- Increase water, wastewater and energy efficiency;
- Public Health Monitoring and health hazard management at a district level;
- Improve organisational capacity;
- Reduce water leakage and non-revenue water by improved monitoring;
- Deepen the synergies with research and innovation organisations towards sustainable growth at a regional scale;
- Support data-driven decision making.

The digitalisation of the organisations is essential to promote growth and increase capacity in a sustainable way. This will be achieved through the upgrading of the organisations' operation and services, by integrating the various software and systems currently used, into a unified system to operate under cloud services.

Improved monitoring: Establishment of innovative technologies for monitoring the consumption as well as for Early warning system for network failures through smart meters (Automated Meter Reading - AMR). These sensors can be used to provide advanced services to the utility clients, as well as help the utility become more efficient through the reduction of Non-Revenue water and subsequently the reduction of energy and greenhouse-gas emissions.

Moreover, the continuous smart meter monitoring is essential for developing analytics and digital twins of the water distribution system. This will facilitate the accurate estimation of water flows, pressures and water quality, which is essential in early event detection.

Improved consumer information and decision-making. The digital solutions to be employed will assist so that every citizen served by the councils will be instantly informed about his account data through the customer portals. This in turn will help consumers adapt their consumption habits and demand towards more efficient water use. Additionally, the technical staff will have complete information and knowledge about the network in case of failure, maintenance to be able to take immediate action.

Reduce non-revenue water and improve water quality: This will be an immediate effect of the improved monitoring, both in terms of early response to system failures as well as improved water consumption monitoring.

Promote Environmental Sustainability: Digitalisation will also promote environmental sustainability since the improved network and consumption monitoring will lead to resource and energy efficiency. Additionally, the investment includes direct energy efficiency measures by the installation of Renewable Energy Sources on facilities owned by the organisations. The LSDB also includes circular economy promoting activities with the reuse of sewage derivatives.

Implementation

➤ ***Transition of Larnaca Sewerage and Drainage Board (LSDB) into a smart and green Organisation***

The LSDB will implement the project through the following activities:

- **Map Energy Footprint and reduce energy consumption:** LSDB will conduct a Techno-economic study to identify needs for optimal solutions in energy consumption in order to apply solar energy and biogas production solutions. Already the LSDB is currently in the study and design phase to construct a large photovoltaic unit for the Wastewater Treatment Plant. Also, around 36 pumps need to be replaced to decrease energy consumption and maintenance costs.
- **Damage Detection Equipment:** The network, dating back to 25 years, has reached its useful life in a number of points, creating the need to identify these in order to clean and maintain the pipelines for the better operation of the network. The timely detection of damaged pipelines will be achieved with the installation of smart meters and systems for recording the hydrological balance that may detect the penetration of seawater / groundwater. The inflow of water into the network, in addition to affecting the conductivity of wastewater, increases the energy required for the transport and treatment of wastewater, thus reducing the efficiency of the equipment, as highlighted by the Audit Office 2016 Performance audit. Such cases can be detected with advanced monitoring using telemetry, full digitisation and recording of repairs, maintenance and any changes in hydrological data caused by illegal inputs with the installation of appropriate sensors. With the use of vacuum jetting and CCTV it will be possible to monitor the maintenance and cleaning of the network adequately for its best performance.
- **Frequent network maintenance will prevent the formation of septic effluent causing the production of H₂S hydrogen sulphide, a hazardous and toxic to human health gas causing damages in the network and raises consumer complaints and public health concerns.** Also, as a preventive measure to prevent the creation of this gas, chemical distribution units will be constructed in the network as well as a production station of Ca(NO₃)₂ and dosing stations in 6 Pumping Stations will be installed, as well as smart sensor system connected to the Supervisory Control and Data Acquisition (SCADA) system to record the detection of any H₂S formation and set the dosing demands as required.
- **Public Health Sentinel:** During the COVID-19 pandemic, sewerage councils have undertaken the important role of monitoring the spread of the SARS-COV-2 by estimations based on wastewater samples analysis. As a national public health sentinel, the LSDB can also contribute to the monitoring of pathogens as well as other substances and factors affect public health or be associated with human behaviour (such as drug or recreational drug use). To this end, specialised sensors will be installed, and periodic manual sampling will be performed using molecular biology techniques (e.g., online quantitative polymerase-chain-reaction (qPCR) analysis), heavy metals and other substances of interest to monitor and provide this information to health services as well as consumers.
- **Software Integration and cloud infrastructure:** LSDB and KIOS Research and Innovation Centre of Excellence at the University of Cyprus, will collaborate towards the integration of existing utility software (SCADA, GIS etc.) into a unified system. This system will be equipped with a digital twin platform, to allow the LSDB to answer what-if scenarios, using

hydraulic and energy modelling. Moreover, KIOS will incorporate custom methodologies for anomaly detection system for early warning using sensors and open data, e.g. to detect pump failures, abnormal energy consumption, risk of overflows etc; The collaboration will also include the purchase of equipment to create cloud infrastructure and a dedicated control room for real-time monitoring and system management.

Target population

This activity will have an impact on all the subscribers of the LSDB network, public health services, Larnaca municipality and neighbouring region and local businesses.

➤ ***Adoption of smart technologies to improve the efficiency of Larnaca Water Board (LWB)***

The LWB will implement the project through the following activities:

Water distribution network monitoring: Draft a strategic plan for monitoring the water distribution network and purchase water quality and pressure sensors and other equipment. The LWB will follow-up with the installation of the equipment to deliver operational, fully equipped, (water quality and pressure) monitoring sensors connected to the telemetry and control system. The equipment includes pressure sensors, chlorine sensors, water level sensors in tanks, digital flow meters, pressure reducing valves, multiparametric quality sensors, correlating noise loggers for leak detection and finally the necessary equipment for the telemetry system, data collection, management, storage and visualisation.

Smart Meters: Installation of a smart water metering system. The aim is to install and replace around 50% of the total LWB conventional consumer meters with smart meters. This will assist in the identification of leaks and provide a better understanding of their bills through an online platform in order to manage water consumption more efficiently.

GIS System: Development of a new GIS system through the digitisation of analogue maps, the mapping of the existing network and the integration of all information into a single integrated environment. This system will be the basis for accurate and efficient recording of infrastructure and will help identify problematic areas that need upgrading or network replacement. In addition, it will be easier to detect potential background leaks.

Digital Twin: Creation of a digital twin software and data bank. The Digital Twin software will be created by the KIOS Research and Innovation Centre of Excellence at the University of Cyprus on behalf of the LWB. All data from the LWB's telemetry, GIS system, sensors and meters will be communicated to the digital twin in order to accurately estimate water flow, pressure and quality of water for the timely detection of events. More specifically, the "Digital Twin" will use hydraulic and quality models resulting from the GIS system and combine the data from the telemetry system, the smart meters (AMR) and the various sensors (pressure, chlorine, flow, etc.) and meters that are installed on the network. Using an AI-based decision support system, conclusions will be drawn regarding the efficiency of the network, identifying areas for improvement and isolating faults (such as leakages), within the network.

Data driven decision-making: The LWB, in collaboration with the KIOS Research and Innovation Centre of Excellence at the University of Cyprus, will create calibrated hydraulic models of the water supply system, to be used with and fed into other models and decision-making tools to help make informed decisions. Additionally, the two organisations will conduct an analysis of the LWB's needs with respect to decision support systems which will assist the organisation in managing the network more effectively. Based on the analysis, decision support tools will be custom designed, integrated into the available infrastructure and platforms, as well as the digital twin software. Each tool will be evaluated, and its impact assessed by LWB. This will include decision support tools through the use of modelling, simulations, optimisation and what-if

scenarios, such as early leakage detection, pressure optimisation, infrastructure replacement schedule, etc.

The purchase and installation of the equipment, including the digital twin software and development of the consumers' platform will be carried out through procurements by LWB, in accordance with the legislation governing the Public Procurement procedures. The development of the network hydraulic model and customisation of the Digital Twin, including the decision support tools will be carried out through the cooperation of LWB with KIOS Research and Innovation Centre of Excellence at the University of Cyprus, as part of their strategic research and development collaboration.

Target population

The investment will target the LWB and its subscribers.

➤ **Limassol Smart Water Network**

Automated Meter Reading: The Water Board of Limassol (WBL) will replace conventional consumer meters with "smart meters" (Automated Meter Reading - AMR) and install pressure and quality sensors for infrastructure monitoring. The data provided will allow the development of innovative customer services, such as early warning in the case of a leakage. More critically, smart metering will assist in creating accurate estimations of the hydraulic and quality states of the network throughout Limassol, which are critical for efficient pressure management and faster leakage/contamination detection and isolation. Furthermore, the augmented information from the smart meters aids in reducing water loss and safeguard the health of the population by facilitating rapid leakage detection and isolation.

Software Integration: Designing a customised integrated software to integrate all WBL operations with the management, providing a holistic view of the organisation, and supporting the task of decision-making using data. This system will be developed by the KIOS Research and Innovation Centre of Excellence (University of Cyprus), which will integrate tools and models based on AI and control systems. The system will have an open architecture, to allow integration with new technologies developed by other partner organisations.

Control-room: The system will be monitored through the set-up of a modern control room, providing operators a complete operational view of the infrastructure. This is essential due to the increased number of sensors. The control room will be comprised of multiple screens and computational infrastructure, supporting multiple dashboards of the WBL.

Target population

The WBL and its subscribers.

Timeline

Q1 2023: Delivery and installation of photovoltaic units at the Larnaca Wastewater Treatment Plant generating power of at least 700KW.

Q4 2024: Delivery and installation of at least 200 quality and pressure sensors in the Larnaca and Limassol water networks.

Q2 2026: At least 100.000 smart meters in operation (delivering consumption readings) & a complete smart water metering system, monitoring system, as well as an installed and operational control and support systems in Larnaca and Limassol.

State Aid

Water and Sewerage Boards are legal monopolies within a specific geographical area in terms of their activities. They are not active in other markets and their infrastructure will not be

outsourced to a third party following a tender. In addition, the services it offers are not in competition with other services. The investment concerns the responsibilities of the Water and Sewerage Boards and are indirectly for the use of the general population. The investment therefore does not distort competition and does not constitute State aid.

Measure Category 3: Ensure water adequacy and adaptation to climate change

• **Investment 5: Anti-flood and water collection measures**

- *Upgrading and embellishment of flood channels in Livadia*
- *Rainwater collection and Recycling System in Kladeri Area*
- *Urban anti-flood measures for Nicosia Municipality*

Challenges

Ageing and ineffective Infrastructure: The Livadia channel, constructed in the 1980s in the Municipality of Livadia is delimited within an area of approximately 1700m in length and width ranging between 30m and 46m. Its special natural features are a neglected landscape, most of which was constructed as a container (walls and floor) made of reinforced concrete and in which stagnant rainwater flows from the hinterland creating a health hazard to the area. The walls have shown problems of brittle concrete and oxidation of the reinforcement and need urgent repair. It is a project planned and pending implementation for years. Today, the inhabitants of the Municipality of Livadia face serious problems due to the canal's limited functionality for driving water away from the inhabited area. Additionally, the stagnant waters and the development of mosquito colonies present health risks and quality of life issues for the inhabitants of the surrounding area. The problem arises from the fact that the bottom of the canal was originally constructed with an inverted slope in relation to the flow of rainwater to the sea, i.e. the bottom is lower than sea level. As a result of this construction the rainwater cannot flow from the hinterland to the sea but stagnates in various parts of the canal.

Lack of effective drainage or rainwater collection and irrigation network: The lack of a proper rainwater drainage network in Nicosia urban area exacerbates the situation. A proper network of sewers includes not only the underground piping, but also the presence of raised sidewalks that help divert water to the catchment gullies. It is therefore important to connect all streets to a new rainwater drainage network. The network will channel rainwater away from inhabited areas towards the rivers and the natural canals. In addition, Ypsonas Municipality in Limassol district does not currently have a rainwater collection and irrigation network in the area, forcing the Municipality to use drinking water to meet the needs of watering the existing green spaces.

High flood risk areas and damage impact: The area known as Kladeri is placed in the flood plain of Ypsonas, a high flood risk territory with several floods occurring yearly, causing considerable damage and property loss. The project essentially aims to adequately mitigate the risk and damages caused by the frequently occurring flooding events and runoff water in the region of Ypsonas. The area is situated near the river "Argaki of Marquette", flowing next to the industrial area of Ypsonas and passing through the Western part of its residential area. The historical flood records from this river refer to flooding events and subsequent damages not only in the area of Kladeri but also in Kolossi and Trachoni Communities. The river flow according to the "Risk Analysis from Floods" prepared by the Water Development Department ends up on the west of Limassol port where other river streams join and create flooding events in the area of Zakaki. (Miltonos area, Limassol Industrial Area etc.). According to Fire Service and the Municipality data, 58 cases of water pumping from premises, 86 cases of road traffic interruption due to gravel transport and high-water level and damages amounting to approximately € 80,000 per year have been recorded for the last 4 years.

For the case of Nicosia, in addition to the climate factors, the past mishandling of riverbeds crossing Nicosia and the uncontrolled housing constructions on the banks of these riverbeds have

increased the risk of flooding due to the obstruction of water flows. Floods occur almost yearly. The damages were extensive especially in 2017, 2018 and 2019. The areas most hit were built-up areas located near the Pediaios riverbed, such as Agios Omologites, as well as the parishes of Pallouriotissa and Kaimakli where a tributary river ends in an area called "lake", which has been developed recently. The drainage works in Nicosia are concentrated in the aforementioned areas.

Objectives

Adaptation measures: The main investment's objective is the successful flood risk management to mitigate the negative effects on human health, the environment and cultural destruction and loss of income from flooding events. More specific objectives resulting from the actions to be implemented are to reduce erosion from extreme runoffs, protect fertile agricultural land and better control of the runoff flow from extreme soil sealing, thereby reducing effects of urbanisation.

Complementary and environmental measures: The Municipality in Livadia will implement complementary measures including the restoration and embellishment of the area in order to upgrade the environment and aesthetics, areas for hiking, running, bicycle paths and spaces for seasonal events to be formed on and inside the channel.

Adjacent actions in the case of Nicosia include the construction of suitable sidewalks to improve pedestrian safety, provide accessibility solutions and contribute to improving the city's aesthetics. Pedestrian pavements will be constructed in accordance with European technical standards including all necessary specifications for persons with disabilities.

Kladeri project includes the use of recycled water towards greening the adjacent area. The solution promoted aims to collect rainwater from extreme weather occurrences, divert it to 20tn tanks, filter it from sediments and reuse it to water adjacent parks and green areas in the territory thus changing the microclimate of the area. In short, the specific actions aim to: a) Recycle runoff water and promote better micro weather conditions in the area from the resulting growth of the trees, b) Reduce Water demand for parks and public spaces, c) Reduce average temperature of the area, d) reduce stagnant water from runoffs to reduce the mosquito population, e) Promote effective water management including investments in water harvesting, f) Use of renewable resources for pumping the recycled water thus reducing the carbon footprint of the area.

Implementation

➤ ***Upgrading and embellishment of flood channels in Livadia***

The Municipality of Larnaca will undertake the implementation of the following short and long-term works, based on a hydrological and hydraulic study of the canals for flood prevention in Livadia:

- Cleaning of riverbed and riverbanks, including cutting of vegetation and trees and shrubs
- Improving the river banks where they are made of soil, modifying the top level if necessary, or the geometry (reducing the slopes if necessary) taking into account the nature of the material that forms the river banks and its close availability (will be preferred use of environmentally sound materials). Proposed solutions could include planting vegetation, using ecological engineering techniques, to enhance the landscape and ecological potential of the river environment.
- Improve riverbed capacity by widening width whenever possible.
- Improving the relationship between the village of Livadia and its river, emphasizing the ecological aspects of the river and their importance in determining the quality of life of the people living nearby. This will help create new habitats and have beneficial effects on aquatic fauna and vegetation.

Upon completion, the project will have the ability to channel the flood supplies of the wider area to the sea and the configuration of the seafront end of the canals will function as a flood protection catchment and the drainage capacity of the canal will be doubled. It will also contribute to the creation of conditions for comfortable and safe movement of pedestrians in a natural environment where in addition to flood defences, it is proposed that trees and shrubs be planted in large areas on the banks of the canal. The canal is an important geophysical element and its utilisation will be beyond an axis of walking and exercise, a linear green space that will give quality breath to both the residential units and the wider areas that surround it.

Target population

Residents of the Municipality of Livadia, SMEs.

➤ ***Rainwater collection and Recycling System in Kladeri Area***

The Municipality of Ypsonas will construct a complete rainwater collection network of 4600 meters in length to cover the area, ending in 35 absorption pits of 25 meters each for collection of the quantities reaching the lowest point and enrichment of the aquifer. In the future, the entire network will be connected to the network to be constructed by the Public Works Department on Petraki Giallourou Avenue, leading the excess water to the sea. Further 16 points will be created for storing water in tanks of 20 tons each. The water will be used to irrigate the corresponding green areas, thus improving the microclimate and increasing the number of trees in the area.

The hydrological study was prepared for a return period of 5 years. Based on the current situation and the coverage rate of the area, the resulting needs reach 40% of the total capacity of the system. Based on the data the current flows reach $3\text{m}^3 / \text{s}$ and require 14 absorption pits 25m deep and 1.2 m in diameter to cover this flow. Much of the rainwater today is absorbed by plots that have not yet been developed. According to the statistical service, the population of the Municipality is expected to increase by 40% in the next 10 years, which will result in a large part of the area to be sealed for land development.

As mentioned above, the current needs reach $3\text{m}^3 / \text{s}$ but based on the hydrological study these will reach $6.8\text{m}^3 / \text{s}$. The system, as will be created can absorb volumes up to $9\text{m}^3 / \text{s}$ thus making it sufficient without creating any future problems. At the same time, the irrigation system that will be created will be able to manage 320 tons of recycled water at any time.

Target population

Residents of Ypsonas Municipality, SMEs.

➤ ***Urban anti-flood measures for Nicosia Municipality***

Nicosia Municipality has selected eight areas where a complete sewer system will be constructed. These include:

- Civil works contract for the reconstruction of streets and pavements and expansion of the rainwater network - Ayios Antonios area 31,
- Civil works contract for the construction of a network of rainwater drainage on the streets of the old city that are heavily flooded,
- Civil works contract for the reconstruction of streets and pavements and expansion of the rainwater network - Lykavitos area 22,
- Civil works contract for the reconstruction of streets and pavements and expansion of the rainwater network - Ayioi Omologites area 20,
- Civil works contract for the reconstruction of streets and pavements and expansion of the rainwater network - Pallouriotissa area 30,
- Civil works contract for the reconstruction of streets and pavements and expansion of the rainwater network - Trypiotis area 21,

- Civil works contract for the reconstruction of streets and pavements and expansion of the rainwater network - Lykavitos area 28,
- Civil works contract for the construction of a network of rainwater drainage and construction of pavements in some areas - Flood protection works in the city.

The design of all reconstructed streets and pavements and the expansion of the rainwater network will be contracted by the Technical Department of the Municipality of Nicosia. A group of civil and mechanical engineers, quantity surveyors, technicians and secretarial personnel will be involved in the monitoring and implementation of the project. Works will be executed by suitable contractors after a public procurement procedure in accordance to the Law, under the supervision of the Technical Department.

The works will be coordinated under a time schedule to ensure that minimum disturbance and inconvenience. The citizens will have the opportunity to comment on the plans and contribute through activities such as planting and maintenance of the new greenery. This will assist in consolidating ownership of the new environment by the area's inhabitants.

Target population

Local population, SMEs.

Timeline

Q4 2022: Completion of construction of drainage network and reconstruction of streets and pavements in Agios Antonios, Old city, Lykavitos and Ayioi Omologites areas of Nicosia with a total length of approx. 6,5 km.

Q2 2024: Completion of construction of the rainwater collection and recycling system covering a total water collection system area of 4.5km in Kladeri area.

Q4 2025: Completion of construction work for the Livadia flood channel with a total capacity of approx. 30.000 m³ completed.

State Aid

The investment is implemented within the framework of the local administration authority for the public benefit and does not constitute state aid.

- **Investment 6: Enhance water security for Nicosia and Larnaca regions**
 - Construction of three (3) new generation Glass Lined Steel (GLS) water tanks
 - Construction of a 10,000 m³ reservoir at Klavdia

Challenges

As noted by the Audit Office 2016 Performance audit on the management of water resources in Cyprus, "several local Authorities are unable to deal with possible interruption of the water supply by the WDD, for a minimum of 24 hours".

Both Cities increased substantially in size and number of residents within the last 40 years. However, water capacity has not increased linearly with water demand. In the case of any fault to the water supply system, continuous supply to consumers is not granted. In a nutshell, the challenges are summarised as follows:

- Insufficient water storage and inadequate storage infrastructure (number and size of reservoirs)
- Reduced water supply in case of damage, water shortage or force majeure

Water Board of Nicosia's (WBN), water resource needs are depended upon water produced by desalination plants from Larnaca District. This makes the city's water adequacy vulnerable to network failures or adverse climate effects such as periods of droughts. If the stored quantities are not adequate to provide water until the damage is repaired, this will result in leaks in the system after the water supply is restored, which affects water quality, results in water loss and system wear. Currently the WBN can guarantee only 7 hours of uninterrupted water supply in the centre of the Capital instead of 24 - 48 hours.

The Larnaca Water Board (LWB) is responsible for the uninterrupted supply of drinking water to consumers in the Municipality of Larnaca, the Municipality of Aradippou as well as in part of the Municipality of Livadia and the Communities of Oroklini and Pyla. In addition, LWB supplies water to the Larnaca Industrial Zone, the Free Trade Zone, the Larnaca International Airport and the Larnaca Port.

Currently, the daily water demand from all consumers, including non-revenue water, is about 22,000 m³, serving 45,000 households and businesses. Taking account of the population growth rate (1.5% per year according to CyStat), the respective households' growth rate is estimated to reach 0,75% per year. As a result, the rate of daily demand per year will increase accordingly.

It is expected that the LWB will eventually expand its administrative borders to the district level, and thus the daily water demand is expected to increase. Although each municipality or community to be included in the LWB water supply area may have some water storage space, this is not enough to meet the 48-hour target. It is noted that recently the LWB has incorporated the Municipality of Aradippou network, serving an additional 8,500 households and businesses with a daily demand of around 7,000 m³. The amount of non-revenue water for this network amounts to 50%, a quantity which the LWB must reduce significantly in the short-term. Additionally, there is an ongoing process for the inclusion of the Municipality of Livadia in the LWB network. Indicatively, the daily consumption of the (approximately) 3,500 consumers of the Municipality of Livadia is approximately 2,000 m³ of water. Therefore, the increase of the water storage capacity is necessary to face the growing demand.

Objectives

The objective is to increase the water adequacy for the needs of Nicosia and Larnaca Water Boards.

Water demand in the centre of Nicosia is 1000 m³ per hour. The existing 7000 m³ provide 7 hours of autonomy. The storage capacity increase to 24000 m³ will provide 24-hour autonomy to 40 thsnd consumers and additionally occupied Nicosia areas. Also, the average autonomy with the third water tank will increase to a total of 32 hours from 24 serving an additional of 90 thsnd consumers. In total, the existing 78000 m³ water storage capacity will increase to 104000 m³, an increase of 33.33%.

The LWB's medium-term goal is to achieve uninterrupted water supply to all its consumers for 24 hours (a goal that will be achieved through the implementation of the proposed project), while the long-term goal is to achieve an uninterrupted water supply for at least 48 hours.

The total capacity of the water tanks of the LWB today is 13,000 m³. Therefore, based on the current amount of non-revenue water, the LWB can guarantee uninterrupted water supply for 14 hours. Assuming that non-revenue water for all consumers of LWB will be limited to 20% in total (a process already in progress) and an average daily demand of about 22,000 m³, the construction of the reservoir will increase the water storage capacity to 23,000 m³, allowing for 27 hours of uninterrupted water supply to all households and businesses.

Additionally, uninterrupted water supply reduces the risk of damages to the system and water losses and ensures water quality. The projects serve the strategic objectives of the Nicosia and

Larnaca Water Boards to increase water adequacy in order to comply with international good practices.

Implementation

➤ **Construction of three (3) new generation Glass Lined Steel (GLS) water tanks**

The Water Board of Nicosia will undertake the construction of two (2) new generation Glass Lined Steel (GLS) water tanks of 8000 m³ capacity each, along Athalassa Avenue to increase the centre of the capital water supply autonomy by 16 hours. Additionally, one (1) same type tank will be constructed in Agios Vassilios area in Strovolos of 10000 m³. In total, the average autonomy of the water supply system will increase to 32 hours. The GLS tanks are cost effective, durable and leak free and provide thermal insulation. The project will be completed in two phases as described below:

Design Period:

- Soil investigation studies and topographical surveys.
- Foundation and concrete base design for each reservoir.
- Water reservoir design, roof and reservoir insulation.
- Guide drawings, working design drawings for the erection of the structures, reinforced concrete drawings and calculation notes, erection and dismantling drawings, inflow and outflow layout, in compliance with the detailed design accepted by the employer.
- Health and safety report.

Build period:

- Installation of the site and preparatory works, temporary works, connections to water and electricity networks.
- Implementation of works in accordance with the approved detailed design report, including earthworks and final backfilling, foundations, concrete base construction, erection of main structures etc.
- Testing and commissioning
- Operation and maintenance manuals
- As-built drawings
- Removal of any temporary works

The administrations involved are the Urban planning state department, the Water Development state department, the Water Board of Nicosia technical services, the Provincial Administration and the Contractor to be assigned.

Target population

WBN consumers are households, apartment buildings, schools, hospitals, governmental buildings, courts, municipalities buildings, parks, shopping areas, industrial areas, and livestock zones. The water connections are 125,000 and the general population supplied 24/7 with drinkable water is 350,000.

➤ **Construction of a 10,000 m³ reservoir at Klavdia**

The Larnaca Water Board will procure the construction of a 10,000 m³ reservoir in a specific designated area at Klavdia. After the evaluation of tenders, LWB will sign the contract with the selected tenderer (contractor) and will be published on the e-procurement platform. The project for the construction of the new reservoir will include new piping, manhole construction for flow meters, valves and other equipment and rehabilitation of the surrounding area. A supervising site

engineer will be employed by LWB for the entire duration of the reservoir construction. Once construction is complete, the LWB will provide by the contractor with an issue of taking-over certificate. Following the 'defects liability period', LWB will assume full responsibility for the reservoir operation.

Target population

LWB customers which include households, businesses, government and local administration, farmers, hospitals and the general population.

Timeline

Q1 2023: Completion of construction of 2 glassed line steel reservoirs of total capacity of 16.000 m³

Q2 2025: Completion of construction of 2 glassed line steel reservoirs of total capacity of 36.000 m³

State Aid

Water Boards are legal monopolies within a specific geographical area in terms of their activities. They are not active in other markets and their infrastructure will not be outsourced to a third party following a tender. In addition, the services it offers are not in competition with other services. The investment concerns the responsibilities of the Water Boards and are indirectly for the use of the general population. The project therefore does not distort competition and does not constitute State aid.

• **Investment 7: Eastern Nicosia infrastructure for wastewater treatment's effluent re-use**

Challenges

Under-utilised wastewater: The sewerage system of the eastern part of urban Nicosia is currently served by two Wastewater Treatment Plants (WWTPs). The 1st WWTP operated in 2010, is located in the area of Vathia Gonia within the community of Agios Sozomenos near the Municipality of Geri with a capacity of 22,000 m³ / day and includes a tertiary treatment system using the membranes technology. It serves the municipal areas of Geri, Latsia and part of the municipal areas of Aglantzia and Strovolos while soon projects are expected to be implemented for receiving wastewater from the areas of the Municipality of Idalion and the communities of Pera Chorio, Nisou and Lympia. Today, it is estimated that the said WWTP processes about 9,000 - 10,000 m³ / day. Part of the recycled water produced is available for irrigation purposes by the WDD through the existing infrastructure. The disposal of recycled water does not present a specific time pattern, since quantities can be disposed of according to demand, which depends mainly on rainfall. Therefore, during the winter months when the irrigation of agricultural crops is usually paused and due to the lack of sufficient storage space, the wastewater is discharged into the river Kalogiros and the Athalassa Dam.

The 2nd WWTP, located in the occupied area of Mia Milia, originally operated in 1978 and reconstructed in 2013, has a capacity of 30,000 m³ / day. It also includes a tertiary treatment system using membrane technology. The WWTP Serves the municipal areas of Nicosia, Ayios Dometios, Engomi, parts of the urban areas of Aglantzia and Strovolos as well as part of occupied Nicosia. The new Mia Milia WWTP was reconstructed utilizing 30% funding from the European Union Aid Program to the Turkish Cypriot Community and 70% from the Nicosia Sewerage Council (NWC). Today, the produced recycled water, apart from some small quantities available for irrigation, is disposed of in the Pediaios river.

The project proposes the construction of the necessary infrastructure so that the whole amount of the treated wastewater quantities produced by the WWTP can be immediately utilised, avoiding any discharge and satisfying the existing irrigation needs of farmers that are already

connected to the irrigation network. Additionally, Water Development Department will be given the opportunity to manage the future increase of the treated effluent quantities, which is estimated that in the year 2040 will reach 15,000 m³/day.

Objectives

Today, the WDD uses two (2) existing tanks as storage spaces with a capacity of 280,000 m³ and 500,000 m³ respectively, located opposite the Vathia Gonia WWTP. With the proposed construction of another (1) winter storage tank of a capacity of 1.5 mln m³ near the existing ones, the total system capacity will increase from 780,000 m³ to 2,280,000 m³, exceeding the storage needs for the target year 2040.

The following direct impact is expected from the investment:

- Zero disposal of treated wastewater;
- Sufficient (winter) storage of the quantities produced but not consumed during the winter period.
- Increase the use of treated wastewater to meet existing irrigation needs;
- Achieve, within a twenty years period, the full utilisation of the quantities of recycled water that will be produced by Vathia Gonia WWTP.

By extension, the investment will contribute to wider and long-term national objectives such as:

- The full utilisation, by the year 2040, of treated effluent quantities produced from the Vathia Gonia WWTP.
- Benefit from the use of treated wastewater as an unconventional and reliable source of water adding important quantities to the water balance and at the same time, allows saving fresh water at the dams and underground aquifers (minimizing groundwater over-pumping);
- Providing additional protection against drought;
- Contributing to the increase of agricultural production due to the nutrients contained in recycled water;
- Increased economic benefits of farmers (income) due to the possibility of irrigating new high efficiency crops (mainly livestock plants) and contribution to the preservation of traditional agriculture;
- Improving the operation of the existing pumping station via the construction of the balancing reservoir and achieving energy savings;
- Increased revenues from the sale of recycled water already produced but not utilised;
- Improving of the WDD operational ability in utilizing recycled water in Nicosia.

In addition, the project contributes to the achievement of the WDD Strategic Objective for "Ensuring the fullest water coverage for all uses" as part of the Action "Enhancing water availability with new infrastructure projects with conventional and non-conventional water sources."

Implementation

The project involves the pumping, conveyance, distributing and storage of treated effluent from the Vathia Gonia Wastewater Treatment Plant (VG WWTP), located in eastern Nicosia. This will eventually be used for irrigation purposes in specific agricultural regions situated in the broader eastern Nicosia area under the control of the Republic of Cyprus. The project will be implemented by the WDD.

More specifically the project involves the construction of a:

- 1.5 mln m³ winter storage reservoir;
- 13.000 m³ balancing reservoir;
- Conveying pipeline (Pumping and gravity mains);
- Connections with existing infrastructure (i.e. pumping stations, pipelines, irrigation networks), and
- Ancillary works to enable the use of treated effluent, produced by VGWWTP, for irrigation purposes.

Target population

Farmers and municipalities (Aglantzia, Geri and Latsia) in adjacent area for irrigation purposes.

Timeline

Q4 2022: WDD will proceed with signing of the contracts for the construction of a winter storage reservoir of an approximate capacity of 1.500.000m³, pipelines and ancillary works.

Q2 2026: Wastewater treatment infrastructure including a winter storage reservoir of an approximate capacity of 1.500.000m³, pipelines and ancillary works will be complete, delivered and fully operational.

State Aid

WDD is an integral part of the state and a legal monopoly on its activities. It is not active in other markets and its infrastructure will not be outsourced to a third party following a tender. In addition, the services it offers are not in competition with other services. Therefore, any aid to the WDD does not distort competition and does not constitute State aid.

- **Investment 8: Protection of the marine ecosystem from hazards and Improve the level of efficacy of oil spill preparedness, prevention and response mechanisms**

Challenges

Increased risk: The evolution of Cyprus into a modern shipping and energy centre and the consequent increase of shipping traffic within the Exclusive Economic Zone (EEZ), the operation of the VTTV oil terminal and the planned construction of the energy centre in Vasilikos, as well as other developments related to hydrocarbon drilling activities in the EEZs of the Cyprus, Egypt and Israel increase the risk of petroleum pollution, with dire consequences for the marine and coastal environment, the tourism industry and the local economy.

Lack of operational capacity: Today, there are serious operational weaknesses for dealing with a possible (medium - large) pollution incident, especially in the territorial waters and at pollution distances beyond 3 nm (5.5 km) from the coast. Shortcomings and technical weaknesses focus on vessels, equipment and human resources that do not allow medium - large - scale incidents to be dealt with promptly, adequately and effectively.

The inability to prevent or mitigate an oil spill at birth (i.e. in the first hours and before the oil mass lengthens through the emulsification process, its breakdown into smaller spots and its geographical displacement on various fronts), can lead to an inconceivable ecological and financial disaster. Israel's recent experience is a tangible example of the extent of uncontrolled pollution that will take decades to repair.

Serious environmental, social and economic consequences in case of an accident: The consequences of an accidental pollution peak when the oil slick reaches the shores. The effects of oil spills on coastal areas dramatically affect flora and fauna, public health, fisheries, tourism and leisure, energy resources, manpower and manpower, landscape aesthetics and the public image

of the affected area. Serious economic losses can be experienced by industries and local communities that depend on coastal resources. Polluted beaches will need to be excluded for long periods of time during time-consuming decontamination work, without this meaning that an affected coast will be fully restored.

Environment and biodiversity: The harmful effects of oil are greater in organisms that live in shallow water with sandy substrates and the damage can last for years. Coral reefs are particularly sensitive to spilled oil and if affected can take a long time to recover. Seabirds, turtles and seals are protected species and are at high risk of pollution, especially at high concentrations of dispersed oil. In particular, the following have been observed:

- a. Harmful effects on living resources and marine ecosystems, causing loss of biodiversity. Toxic effects on plankton, including bacteria, eggs and larvae. Suffocation and drowning of marine organisms and birds. Effects on reproductive processes, loss of basic species in a biosociety and therefore disruption of interdependencies between species, significantly affecting the ecosystem by altering it.
- b. Reduction of light transmittance resulting in slowing down the photosynthetic capacity of underwater plants.
- c. Reduction of oxygen permeability with negative effects on the marine ecosystem.

Social: The consequences are catastrophic for the affected local communities. The cessation of leisure activities, especially marine activities (swimming, boating, fishing and diving) due to the destruction of beaches or the deterioration of water quality and risks to public health. The extent to which the quality of life of local people depends on these activities has the corresponding costs and consequences.

Health: Oil contains polyaromatic hydrocarbons (PAHs), some of which are known to be carcinogenic to humans. These substances accumulate in organisms and are transported to food chains. Today, seafood consumption has been shown to account for 2-3% of PAHs intake through a normal diet (Clark, 2003).

Economic: Fishing, and fish farming is particularly vulnerable to oil spills. Potential uncontrolled pollution will have a direct catastrophic effect on farmed fish stocks, as, due to the confinement of these fish in open sea cages, they are unable to escape.

The tourism industry is a primary source of income. Revenues from tourism in 2019 amounted to €2,683,000,000 (Source: CyStat). Hotels, tourist accommodation, restaurants, marinas, water activities, cruises will be directly affected by a possible reduction in tourist traffic due to accidental pollution.

Desalination plants, power plants and other related structures and activities are categorised in sensitive areas as the effects of petroleum pollution will have serious consequences not only on their operation due to downtime, but also on chain supply throughout the water supply cycle or community.

Objectives

Upgrade the operational capacity of the Department of Fisheries and Marine Research (DFMR) to respond promptly, adequately and effectively to oil pollution from marine pollution, regardless of its form, extent and geographical coverage, requires strengthening its existing infrastructure and addressing both coasts and the high seas at Tier I, II and III level.

Reduce response time: The operational impact of the investment is not limited to the ability of autonomous pumping, refining and temporary storage of 100 - 120 tons. Strengthening the state's operational capacity to respond quickly and efficiently with its own means has the comparative advantage of rapid response after reducing the initial reaction time from 24-30 hours to 4-6 hours, as a result of the removal of a complex process of leasing vessels and other means of

transport from third parties in addition to deploying DFMR floating dams and transporting refined oil from the points of pollution.

Implementation

The project implementation team will be composed of Maritime Service officials of the Department of Fisheries and Marine Research (DFMR) with expertise in the field of handling vessels and anti-pollution means. The Maritime Service is the main operational arm for dealing with marine oil pollution incidents with specialised personnel. The smooth and effective vessel operation according to the investment's objectives will continue after the Recovery and Resilience Plan completion with national funds.

The Director of the DFMR will exercise administrative supervision.

1. Investment in the purchase of three (3) detergent vessels suitably designed and with the possibility of autonomous oil recovery companies, two of which will operate close to the shoreline and a larger one on the high seas.
2. Purchase of two (2) autonomous oil dispersant air spraying units using volatile means.
3. Reinforcement of the Maritime Service of the DFMR with two captains and two marine engineers to operate the marine assets for the period ending June 2026. During this period, it is expected that they shall contribute to building up DFMR's capability of oil spill preparedness and combat readiness as well as to disseminating professional expertise and operational excellence within the Department in offsetting the environmental impact of human activity. More specifically the personnel will undergo the following training:
 - Programs (Interdepartmental) on Response and Co-operation (OPRC) Oil Spill Response training
 - IMO courses on oil pollution preparedness and response (Levels of Competency I & II)
 - On the job training for managing the investment under various scenarios and circumstances
 - National and Multinational exercise (NEMESIS)

Operations: The vessels will be used for surveillance, recording and reporting incidents of oil spill as well as pollution from other sources, managing incidents and combating pollution. The 25 m long vessel will cover Cyprus' EEZ and the two small anti-pollution vessels will cover the coastal area where the Republic has effective control. Emphasis will be placed on high risk zones based on sensitivity mapping and interconnected environmental and socio-economic criteria

Target population

General population, coastal area residents, relevant industry workers.

Timeline

Q1 2023: Delivery, quality inspection to verify their operational effectiveness and acceptance of three vessels (1 vessel of 25m in length approximately to operate within Cyprus EEZ and 2 vessels of 8-11m in length approximately to operate within coastal waters) and two aerial spraying systems.

State Aid

The investment is implemented within the framework of the state authority for the public benefit and does not constitute state aid.

4.4 Cross border and multi-country projects

This component does not include any cross-border or multi-country measures.

4.5 Green dimension of the component

The “2.3 Smart and Sustainable Water Management” component is one of the main contributors to Green Transition in the Cyprus Recovery and Resilience Plan. The Component contains a mix of measures relating to the above objectives, as well as three of the strategic goals of the Ministry of Agriculture, Rural Development and Environment (MARDE) in the water management sector: i) promoting green and blue development, ii) protecting the environment while promoting the efficient use of resources and iii) reducing greenhouse gas emissions and adapting to climate change. Additionally, the component’s measures were selected to reflect the main findings, recommendations and challenges mentioned in recent studies and reports concerning water resource management in Cyprus.

The proposed measures are also aligned with the four objectives of the “EU Taxonomy Regulation”, namely, climate change adaptation, the sustainable use and protection of water and marine resources, transition to a circular economy, as well as pollution prevention and control. Moreover, the component promotes green objectives by utilizing digital transition measures as tools to reduce energy consumption, GHG emissions and water loss.

More specifically, the investments revolve around water management, water resource conservation and water re-use, with measures aimed at upgrading infrastructure, improving water quality, network and consumption monitoring to improve efficiency and reduce non-revenue water. At the same time, the investments aimed at improving water management employ a series of technological and digital upgrades in key water management authorities, which support the abovementioned goals.

The above, along with targeted direct energy savings and RES measures will assist substantially in reducing the water management authorities’ and by extension the sector’s carbon footprint in the long-term.

Furthermore, a number of projects target the objective of water security by increasing the water storage capacity in key areas with increased water demand. Partially related, since they also constitute climate change adaptation measures the component includes the creation and upgrade of anti-flood infrastructure, while combining reinforcing and additional environmental measures to promote water re-use and landscape embellishment.

Finally, although not directly related to water management, the component includes an investment of crucial environmental value, which will significantly upgrade the state’s preventive capacity as well as its ability to respond swiftly and decisively to contain the negative effects of a possible natural or man-made disaster in the marine environment.

4.6 Digital dimension of the component

The digital dimension of the component is evident from the concentration of projects and investments with a dominant purpose of digitalizing utilities, infrastructure and services in order to fulfil their main water management task and improve organisational capacity and services in general.

The component includes investments to digitally upgrade the monitoring capacity of the Water Development Department, which is the main state actor in the water management sector. , Additionally, three main Water Management Authorities in Cyprus, namely the Limassol and Larnaca Water Boards and the Larnaca Sewerage and Drainage Board will digitally upgrade their network monitoring as well as operational capacity

All the measures include ambitious and level upgrading measures, as well as significant knowledge transfer due to the cooperation with the University of Cyprus Research Excellence Centre, KIOS.

4.7 Do no significant harm

In all measures included in this component that foresee construction works and purchase of new equipment, machinery, vehicles etc., all procurement procedures will require compliance with the DNSH principle as explained in detail in the separate DNSH assessment of the corresponding measure. This will apply both for investments in the public sector and for financial support schemes to the private sector.

See separate assessment performed on this area included as ANNEX 3 - Assessment of the compliance of the Cyprus Recovery and Resilience Plan with the 'Do No Significant Harm' Principle.

4.8 Milestones, targets and timeline

The milestones and targets for the reforms/investments in this component are presented in the attached table.

4.9 Financing and costs

The cost for each milestone and target is presented in the attached table.

4.10 Loan request justification

Reforms/investments under this component will be covered by the grant element of the Plan.

Policy Axis 3 Strengthening the resilience and competitiveness of the economy

COMPONENT 3.1 New growth model and diversification of the economy

5. COMPONENT 3.1 New growth model and diversification of the economy

5.1 Description of the component

Background and Context:

While at the time of drafting this Component the European Commission-funded Long-term Economic Strategy (LTES) project is still ongoing and the strategy is not yet fully elaborated, the core of the project has been completed and decisions have been taken in defining the building blocks of the long-term strategy:

1. analysis of the challenges the country is facing and barriers to growth, competitive advantages and strengths to leverage in order to drive growth
2. sectors/sub sectors with high-potential to drive future growth – traditional and new
3. a Vision for Cyprus 2035, strategic objectives, and the determination of Cyprus' optimal **new economic growth model**
4. key policy areas and reforms needed to unleash the country's growth potential.

The transition to the new growth model will involve comprehensive policy changes and reform implementation, addressing both the **horizontal**, cross-cutting challenges of the economy, as well as **promoting vertical**, sector specific reforms and investments in sectors and areas that can be the drivers of sustainable future growth. The LTES is a broad and holistic long-term strategy that outlines the way forward in both critical areas and aims to achieve a balance between economic growth, liveability, as well as between progress in the present and the aspirations of the future generations. As such, the new strategy and growth model are reflected in all policy axes of the RRP, which is highly aligned with the LTES.

The new strategy aspires to transform Cyprus into the “**Sustainable Business and Trade Centre of Europe**”. Whilst the new growth model will remain consistent with and leverage upon the existing strengths of Cyprus in services and its role as a business hub, the aim is to strengthen the economy's competitive advantages with a strong focus on sustainability and digitalisation, whilst also setting a high priority on the diversification of the economy, aiming at enhanced resilience.

Cyprus will actively encourage the growth of the green economy by reducing reliance on fossil fuels, reducing the carbon footprint, and promoting the circular economy. Digitalisation will underpin the new growth model as a critical horizontal enabler of long-term growth. Cyprus will utilise innovations in its relatively strong and growing ICT sector to expand the added value of its wider suite of professional services (such as consulting, engineering, and shipping), but also the tertiary education and health services sectors. At the same time, strengthening competitiveness and improving sustainability in the primary and secondary sectors of the economy will be pursued, aiming at enhancing their growth potential. Enhanced diversification and rendering Cyprus more resilient and less exposed to external shocks will be the ultimate goal.

The reforms and investments in the current component 3.1 aim to boost the competitiveness and facilitate growth in key sectoral areas of the economy that have been identified through the LTES as potential drivers of future sustainable growth. At the same time, reforms and investments in other components under Policy Axis 2 (Accelerated Transition to the Green Economy), Policy Axis 4 (Towards a Digital Era), but also other horizontal reforms in other components of Axis 3 (Strengthening the Resilience and Competitiveness of the Economy), will also contribute to the successful transition to the new growth model and the empowerment of the future growth drivers in the context of the LTES.

Policy area/domain: New Growth Model and diversification of the economy

The new economic growth model for Cyprus as defined in the context of the new LTES aims at sustainable long-term growth, competitiveness and resilience. Reforms and investments in this component target a number of sectors/sub-sectors identified in the LTES as drivers of future growth:

- **Primary Sector** – developing a competitive agriculture sector primarily through **agri-tech** and strong collaboration with business, higher-education institutions and research centres to excel
- **Secondary Sector** – developing a competitive **light manufacturing** sector that includes production in areas of green-tech, agri-tech, etc.
- **Services Sector** – placing emphasis on further developing the already growing **ICT** sector and digital services, the export oriented tertiary education and the expert oriented medical services.
- **Sustainable Tourism** – developing a strong **agritourism** and sustainable hospitality infrastructure and attracting **health & wellness** tourists through a competitive and reputable healthcare system.
- **Circular economy** – placing emphasis on **waste management** improvement

Objectives:

The objective of this component is to set the country on the right path towards establishing a competitive and resilient economy with a diversified production base. This will be achieved through a number of reforms and investments that will create the right fundamental economic conditions that can nurture efficiency and growth, attract long-term productive investment and talent, and build key capabilities for improved resilience and resistance to shock. It is noted that the services sector, in particular, is addressed through complementary reforms and investments in other components. When combined with the successful implementation of the horizontal and some vertical measures defined in the other Axes and Components, which also have a strong strategic alignment with the objectives of the LTES, the measures in this component will be strengthening the economy's sustainability, competitiveness, export capability, self-sufficiency, resilience and overall its potential for sustainable long term growth.

Sub-Component 3.1.1 Resilient and competitive primary sector

Reforms:

- Reform 1: Move agricultural practices from the 20th century to the 21st century by investing in a national centre for excellence in agri-tech
- Reform 2: On-line, cloud-based platform for improving the trade and information symmetry in the fresh produce supply chain
- Reform 3: Genetic improvement of the Cyprus sheep and goat population

Investments:

- Investment 1: Construction of a collaborative marine aquaculture infrastructure (port and land facilities) in Pentakomo coastal area
- Investment 2: Enhancing the existing isotopic databases of Cypriot local traditional food/drinks, by developing a Block Chain platform, to ensure their identity
- Investment 3: Upskill the existing farming community and professionalise future labour force by investing in human capital

Sub-Component 3.1.2 Innovative and competitive secondary sector

Investments:

- Investment 4: Initiating the setup of the first Eco-Industrial Science Park
- Investment 5: Creation of a National Commercial Identity and promotion of the traditional product “halloumi”
- Investment 6: Scheme for modernisation and digitalisation of enterprises engaged in manufacturing and trading of agricultural products
- Investment 7: Scheme for the enhancement of large enterprises competitiveness in the manufacturing Sector

Sub-component 3.1.3 Sustainable, high value-added tourism sector

Investments:

- Investment 8: Enhancing the added value of the tourism sector with emphasis on the countryside, mountainous and remote areas
- Investment 9: Promotion of circular economy in hotel establishments
- Investment 10: Enrichment of the tourism product in rural, mountainous and remote areas

Sub-component 3.1.4 Circular economy

Reforms:

- Reform 4: Enhancement of circular economy in Industry
- Reform 5: Establishment of a Coordinating Body between central and local government

Investments:

- Investment 11: Improvement and extension of the Cyprus Green Points Network and creation of a network of Collection Points and Recycling Corners
- Investment 12: Waste management towards circular economy
- Investment 13: Establishment of the Orounda Livestock Waste and Animal-By-Product (ABP) Management Facilities

Sub-component 3.1.5: Competitive export-oriented services sector

Measures promoting the services sectors and their export orientation are included in other components.

Flagship initiatives: Renovate, Modernise, Scale-Up, Reskill and Upskill

Total estimated budget to be funded through the RRP: €166,4 mln

5.2 Main challenges and objectives

Main challenges

Following a deep economic crisis which resulted in negative growth for three consecutive years and a 10% contraction of the economy between Q4 2011-2014, Cyprus returned to growth as of 2015. The country was able to exit the economic adjustment programme earlier than scheduled in 2016, largely as a result of correcting excessive macroeconomic imbalances through the implementation of tough fiscal measures and a number of structural reforms and growth-inducing policy measures mainly implemented under the Action Plan for Growth (introduced in 2015).

While Cyprus' economic rebound was significant, four sectors drove around 70% of the growth in GDP as well as four sectors accounted for the 80% of service exports - exhibiting over-reliance on too few sectors for this economic growth.

Cyprus also lags behind the EU average when it comes to indicators of productivity, international trade, and foreign direct investment.

In the World Economic Forum (WEF) Global Competitiveness Index Cyprus ranks at around the Top 40 mark. In isolation, this is a good result, however Cyprus's performance lags behind the EU average.

When assessing the current economic model, a few main challenges identified as weaknesses as regards competitiveness include:

- Productivity growth is low. Reliant on increasing working hours (i.e. employing more people or working longer) and not increasing productivity for economic growth.
- Investment levels are low and spent in areas with low return.
- Rigidity and inertia were exhibited in the past to adapt the country's education system to nurture skills for the future
- Low rates of adoption of digital technologies in both the economy and society (corporate and consumer levels), notwithstanding recent progress accelerated by the COVID-19 pandemic
- Cyprus is exposed economically to regional and global trends, given its small size, geographic location, limited resources and the openness of its economy
- Notwithstanding the fact that the Cyprus economy has generally exhibited resilience even during economic crises and it continues to demonstrate progress in addressing key challenges to competitiveness, it is clear that imbalances in the economy still exist and some of the structural weaknesses revealed by the recent crisis have not yet been fully addressed.

As depicted by the concentration of economic growth limited to few sectors, **one of the key challenges aimed to be solved by the new growth model is the need to address diversification and productivity.** The select reforms and investments below aim to contribute to this - through both, a new strategic positioning of Cyprus' primary and secondary sectors, its traditional sectors driving growth including tourism and ICT, as well as additional new economic sub-sectors to be developed to restructure and rebrand the economy.

Objectives

A key objective of the new growth model is to **boost Cyprus’ resilience including through the diversification of economic activity, as well as strengthening its competitiveness.**

For Cyprus to transition to its new economic growth model the LTES identified the sectors that can drive future long-term growth in an environmentally and socially sustainable manner. For a small, open economy like Cyprus these sectors were chosen with global trends in mind. They also considered Cyprus’ domestic dynamics including skills, competencies and societal priorities. For the existing vertical drivers, the emphasis is placed on ‘fixing’ the sectors. For newer sectors, the focus is placed on ‘building’ the foundations for future growth.

While the of the LTES project will include a broader scope of objectives and will provide recommendations for horizontal policy/institutional reform, the objective of **Component 3.1** is to propose a select number of reforms and investments that focus specifically on achieving **a strong and robust economy**, and transition to the new economic growth model by addressing sectoral challenges and sectoral transformation for growth.

The identification of these key sectoral areas was performed taking into account external demand prospects, applicability to Cyprus including leveraging its natural capital and existing competitive advantages, alignment with global trends and EU agenda, international best-practice and case studies, as well as input and buy-in from local experts and stakeholders:

- **Primary Sector** – developing a competitive agriculture sector primarily through agri-tech and strong collaboration with business, higher-education institutions and research centres to excel
- **Secondary Sector** – developing a competitive light manufacturing sector that includes production in areas of green-tech, agri-tech, etc.
- **Services Sector** – with an emphasis in further developing the already growing ICT sector and digital services, the export oriented tertiary education and the expert oriented medical services.
- **Sustainable Tourism** – with an emphasis in developing a strong agritourism and sustainable hospitality infrastructure and attracting health & wellness tourists through a competitive and reputable healthcare system.
- **Circular economy** – with emphasis in waste management improvement.

CSRs addressed

Reforms /Investments	Year/CSR Numbers Recitals	Justification
Sub-Component 3.1.1 Resilient and competitive primary sector		
Reform 1: Move agricultural practices from the 20th century to the 21st century by investing in a national centre for excellence in agri-tech.	CSR 2019, 4.1/ Recital 15	While there are no specific CSRs relating to agriculture, there are indirect links. 2019/ (15): The reform has a strong emphasis on driving the agri-tech agenda and hence a strong digitalisation component, where farmers can access a centralised repository of resources and ultimately technologically-enable their operations for increased yield, productivity, and efficiency.

<p>Reform 2: On-line, cloud-based platform for improving the trade and information symmetry in the fresh produce supply chain</p>	<p>CSR 2019, 4.1/ Recital 15 CSR 2020, 3.1/ Recital 24</p>	<p>While there are not specific CSRs relating to agriculture, farming or the food supply chain, there are indirect links. The investment has a strong emphasis on digitalisation and use of technology/emerging technology to make the primary sector more competitive.</p>
<p>Reform 3: Genetic improvement of the Cyprus sheep and goat population</p>	<p>CSR 2019, 4.1/ Recital 13 CSR 2019, 4.1/ Recital 15 CSR 2019, 4.1/ Recital 16 CSR 2020, 3.3/ Recital 23 CSR 2020, 3.3/ Recital 25</p>	<p>While there are no specific CSRs in this area, there are indirect links. Both for 2019/ (13) and 2020/ (23): the reform will boost the economy of the agricultural sector and also promote the efficient use of feed produced on agricultural land by selecting more efficient livestock, with higher productivity per unit of feed consumed. In addition, more sustainable breeding practices will be implemented to support the entire small ruminant farming system.</p> <p>2019/ (15): The reform has a strong digitalisation component, data collection and reporting via digital means that would significantly increase the digital skills of the sheep and goat community and related stakeholders.</p> <p>2019(16) and 2020 (25): Implementing novel agri and biotechnology methods and know-how through genomic evaluation and selection of sheep and goats will be a breakthrough in transferring innovative research results to industry, with tangible benefits in the years to come.</p>
	<p>CSR 2020, 3.3/Recital 23</p>	<p>The investment will promote efficient use of natural resources and reduction of greenhouse emissions by developing sustainable marine offshore aquaculture and improving its environmental performance.</p>
	<p>CSR 2020, 3.3/Recital 32</p>	<p>Sustainable aquaculture development will contribute in achieving the United Nations Sustainable Development Goals (SDGs).</p>
<p>Investment 2: Enhancing the existing isotopic databases of Cypriot local traditional food/ drinks, by developing a Block</p>	<p>CSR 4.1 2019, Recital 15 CSR 3.2 2020, Recital 24</p>	<p>While there are not specific CSRs relating to agriculture, farming or food/drink production, there are indirect links. The Investment has a strong emphasis on protecting local and traditional products thereby making the market more</p>

Chain platform to ensure their identity		competitive, with a strong digitalisation element.
Investment 3: Upskill the existing farming community and professionalise future labour force by investing in human capital	CSR 2019, 3.2/ Recital 11 CSR 2020, 3.2/ Recital 18	While there are no specific CSRs relating to agriculture, there are indirect links. 2019/ (11): The investment has a strong emphasis on driving upskilling in the farming community through close coordination with the universities/academia and R&I communities. 2020/ (18): The investment has a strong emphasis on designing and implementing tailored degrees, placements, and coordination between local universities/academia with the ultimate objective of increasing fit-for-future employment opportunities in the primary sector.
Sub-Component 3.1.2 Innovative and competitive secondary sector		
Investment 4: Initiating the setup of the first Eco-Industrial Science Park	CSR 4.1 2019, Recital 15,16 CSR 3.2 2020, Recital 24,25	While there are no specific CSRs relating to manufacturing, there are indirect links. The reform proposed has a strong emphasis on attracting new investment/FDI in the manufacturing of innovative products, hence a strong digitalisation, research & innovation, and strategic investment component. The eco-industrial zone will be designed specifically to create speed and efficiency for all investors to setup and conduct business, trade, and production in the zone.
Investment 6: Scheme for modernisation and digitalisation of enterprises engaged in manufacturing and trading of agricultural products	CSR 4.1 2019, Recital 15 CSR 3.2 2020, Recital 24	While there are no specific CSRs relating to manufacturing, there are indirect links. The reform has a strong emphasis on digitalisation of enterprises, which will contribute directly to their competitiveness
Investment 7: Scheme for the enhancement of large enterprises competitiveness in the manufacturing sector	CSR 4.1 2019, Recital 15 CSR 3.2 2020, Recital 24	While there are no specific CSRs relating to manufacturing, there are indirect links. The reform proposed has a strong emphasis on digitalisation of the secondary sector which will improve efficiency, output, and competitiveness.

		Eligible capital expenditures under this scheme will contribute to the competitiveness of the sector.
Sub-component 3.1.3 Sustainable and high value-added tourism sector		
<p>Investment 8 Enhancing the added value of the tourism sector with emphasis on the countryside, mountainous and remote areas</p> <ul style="list-style-type: none"> ➤ Financing for the renovation of accommodation establishments / hotels in countryside, mountainous and remote areas to modernise and increase the competitiveness of the tourism product ➤ Renovation of traditional restaurants or businesses selling traditional products, subject to their inclusion in the Label "Taste of Cyprus" ➤ Repurposing of Accommodation establishments/hotels to include medical and assisted living facilities in order to attract Health Wellness and Medical tourism 	<p>CSR 2020, Recitals 9, 19</p>	<p>Even though there are no specific CSRs directly relating to tourism, the recitals and specifically paragraphs number 9 and 19 of CSR of 2020 relate directly to tourism and are linked to all the Ministry's investment proposals.</p>

Investment 9: Promotion of circular economy in hotel establishments	CSR 2019, Recital 13 CSR 2020, Recital 23	The project aims at the enhancement of the circular economy in the tourism sector.
Investment 10: Enrichment of the tourism product in rural, mountainous and remote areas	CSR 2020, Recital 9 CSR 2020, Recital 19	Even though there are no specific CSRs directly relating to tourism, recitals 9 and 19 of CSR 2020 relate directly to tourism and are linked to all Investments.
Sub-component 3.1.4 Circular economy		
Reform 4: Enhancement of circular economy in industry	CSR 2019, 4.1/ Recital 13 CSR 2020, 3.1/ Recital 23	The project will give impetus to the enhancement of circular economy in the industrial Sector.
Reform 5: Establishment of a Coordinating Body between Central and Local Government	CSR 2020, 3.1/ Recital 23	This investment focuses mainly on the increase in the effectiveness of waste management practises by improving coordination between central and local governments.
Investment 11: Improvement and extension of the Cyprus Green Points Network and creation of a network of Collection Points and Recycling Corners	CSR 2019, 4.1/ Recital 13 CSR 2020, 3.1/ Recital 23	This investment focuses primarily on waste management.
Investment 12: Waste management towards circular economy ➤ Integrated bio waste source separation and central small and medium-size aerobic treatment systems and home composting ➤ Construction and operation of Green kiosks for dry recyclables	CSR 2020, 3.1/ Recital 23	The investments focus on increasing sustainable waste management practises.

<p>➤ Construction and operation of Reuse and Repair Centres and networks</p>		<p>This investment focuses on increasing recycling practises</p>
<p>Investment 13: Establishment of the Orounda Livestock Waste and Animal-By-Product (ABP) Management Facilities</p>	<p>CSR 2019, 4.1/ Recital 13 CSR 2020, 3.1/ Recital 23</p>	<p>This investment focuses primarily on waste management.</p>

5.3 Description of the reforms and the Investments of the Sub-Component

Sub-Component 3.1.1 Resilient and competitive primary sector

In Cyprus, rising temperatures, humidity, decreasing rainfall and lack of available surface water for irrigation will create pressures including drought stress, heat stress, decreasing plant health, extreme weather events and reduced crop and livestock productivity. In addition, extreme weather events made more likely by climate change may have an unknown negative impact on agriculture. Agri-tech offers the potential to mitigate against some of these challenges and future-proof the agricultural sector by using technologies to optimise yields and quality as well as more efficient resource use and less Carbon footprint of the sector.

Main challenges

The main challenges expected to be dealt with in developing a resilient and competitive primary sector are the following:

- The relatively high level of fragmentation and lack of economies of scale in the primary sector, which results in relatively low yield and productivity in the sector.
- The relatively low competitiveness and protection of Cypriot livestock and agricultural products.
- The relatively low skill-level of the farming communities and the relatively low levels of technology-enablement in the sector.
- The need for modernised and upgraded facilities and infrastructure in the agriculture and aquaculture industries.

Objectives

The main objectives aimed to be achieved through the reforms and investments below for developing resilient and competitive primary sector are the following:

- To establish a centralised resource for best practices relating to agricultural/ agri-tech practices, animal husbandry and environmental protection.
- To improve the uniqueness, and competitiveness of the primary sector with aim of improving the yield, efficiency, and profitability of the sector.
- To build a close and active partnership between the farming community and universities, ultimately aiming to upskill and future-proof the community through alignment of curriculums, degrees, and graduates of local universities to the sector.

- To modernise and expand infrastructure supporting the agriculture, farming, horticulture, and aquaculture of Cyprus.
- **Reform 1: Move agricultural practices from the 20th century to the 21st century by investing in a national centre for excellence in agri-tech**

Challenges

Cyprus is severely affected by climate change, putting at risk both the safety and adequacy of domestically produced food and livestock production. Rising temperatures, declining rainfall and extreme weather events are the main threats facing farming today. In addition, lack of irrigation water and the presence of new enemies and diseases exert destructive pressures on agricultural development, while the intensive cultivation results in the substantial degradation of agricultural land, posing a threat on biodiversity.

In general, Cyprus' agriculture sector is characterised by low productivity, increased fragmentation and old farmers' population. There is also a lack of awareness and knowledge of the benefits of technological solutions, methodological implementations, such as livestock genetic improvement, as well as technical know-how to implement/ take advantage of solutions (including smart agriculture), which will make farms more productive and cost competitive. In addition, agricultural contribution to greenhouse gas emissions must be drastically reduced through the development of innovative practices and an efficient monitoring system.

The Agricultural Research Institute (ARI) is the foremost body for the evaluation, consolidation, improvement and maintenance of the genetic base of crop and livestock production in Cyprus. ARI's research programs promote the National Strategy for Smart Specialisation in the field of agriculture and contribute to the reform and strengthening of the competitiveness of the rural economy.

Objectives

The Reform aims to establish a nationally organised centralised operating model that provides a common mechanism for farmers and the agriculture sector, to access relevant information, services, funding options (grants, private investors, and other sources). This mechanism will afford strategic direction on boosting the competitiveness and viability in the market, while concurrently ensuring the protection of the environment, the adaptation and mitigation of the primary sector in a climate changing setting and the sustainable use of natural resources.

The implementation of this Reform will allow the upgrading of the role of Cyprus's Agricultural Research Institute as the country's centre of excellence in agriculture, animal husbandry and environment protection. Through the implementation of three investments and reforms (Component 2.1 Monitoring and Reduction of GHG emissions from agriculture, sub-component 3.1.1 Reform 2: On-line, cloud-based platform for improving the trade and information in the fresh produce supply chain, and Reform 3: Genetic Improvement of the sheep and goat population), the technical objectives for the upgrade of ARI will be substantially covered. However, to contribute further to strengthening the country's primary production sector and the protection of the environment, it is of crucial importance for ARI's role to be enhanced through a strong collaboration with the Public Universities. An enhanced and strong collaboration between ARI and Higher Education ensures that "new generations" of students will build on the success of interdisciplinary research areas. Moreover, such collaboration would increase funding opportunities, foster further international research collaborations, promote the development of high added-value products for the agricultural sector and facilitate the establishment of innovative agri-tech spinoff companies, as well as start-ups. In addition, this will ensure maximised economic and societal returns from the national resources allocated to research, higher agricultural education and the primary sector.

Implementation

To meet the objectives of the current reform the following steps will be followed:

- Opening of a round of negotiations between ARI and Higher education systems.
- Preparing a legally binding document between the interested parties.
- Developing, approving and implementing a novel curriculum.

During the implementation period, the following will be further achieved:

- Definition of enhanced ARI role.
- Ministers decree for ARI's reform.
- Signature of new or enhancing existing MoUs.
- Announcement of new joined Masters' and/or PhDs in the wider domain of Agriculture.

Implementation will be carefully assessed with the dependencies from Investment 3 below regarding developing an enhanced future labour force with dedicated degrees and scholarships.

State Aid

Not applicable as the Reform does not constitute economic activity.

Target population

The entire farming community of Cyprus.

Timeline

Q4 2022: New legally binding document/s will be signed between ARI and public universities, establishing the collaboration for joined MSc and PhD programs.

Q2 2023: Announcement of new joined Masters' and/or PhDs in the wider domain of Agriculture.

- **Reform 2: On-line, cloud-based platform for improving the trade and information in the fresh produce supply chain**

Challenges

Cyprus is characterised by long standing drawbacks of the fresh produce supply chain, especially regarding traceability, market price distortions and the information asymmetry which weakens producers' position in the market. Furthermore, the Cypriot fresh produce supply chain experiences long standing unfair trading practices which weaken further the producer's position in the market, widen the gap between producer and consumer prices and create unnecessary transaction costs that are transferred to the producer. The producers are receiving low prices for their production, whereas, market structure and the way prices are announced in a non-transparent way, constitute additional challenges for their viability and sustainability. The above have therefore a direct impact in the profitability of the producers and becomes a major obstacle towards the generation renewal of the producers.

Objectives

The project, which will be coordinated by the Agricultural Research Institute, takes a holistic approach in resolving long standing drawbacks of the Cypriot fresh produce supply chain. Information technology seems capable of taking the fresh produce supply chain into a new era. In this context, the project aims to utilise innovative cloud-based information technologies in order to develop an online trading platform that will record fresh produce entering the local market and moving along the supply chain, allowing the following:

- keep records of supplies and sales for growers,
- support the organisational structure of Producer Organisations (POs) in terms of pricing and sales planning,
- enhance online transactions thereby improving the position of micro-farms in the supply chain,
- provide the means for product tracking,
- support the symmetry of information on price changes along the value chain,
- improve information on product supplies on a real time basis thereby optimise the decisions on daily price movements (based on historical demand data),
- provide supply and demand statistics on a real time basis in order to improve production planning.

The project places Producer Organisations (POs) at the core by strengthening their role (and hence the producers' role) in the trading system; an objective extensively highlighted by the Common Agricultural Policy (EU).

Implementation

The main body of the investment is the establishment of the infrastructure- an electronic platform which will include the following:

(a) Platform modules:

- Production planning: Each farmer will have access to enter all plantings undertaken and have access to consolidated data on production volumes per product as well as historical demand data on a weekly basis.

(b) Ordering Module:

- Sales Module: Producers will have to record all products entering/or being available to enter the market and issue invoices based on the platform unique code.
- Pricing module: At consolidated level, all players will have access to real time information on volumes available in the market as well as estimated demand daily.
- Accounting back-office: Available to producers and POs.

The implementation of the Reform will be based on the following Action Plan:

(a) Architectural design of the online platform and Project Management:

Type of action – Public Procurement

Work description: Design through extensive negotiations and in-depth research with all stakeholders, the various modules, components and interrelated activities in a flow chart format that can be taken up by the Information Technology team in the development process. The design will take into consideration all possible loops, gaps and difficulties and accommodate with solutions.

(b) Online platform development

Type of action – Public Procurement

Work description: Assign the work to an Information Technology Team with a basis on the architectural design in order to develop the platform, test and deliver.

(c) Project monitoring on behalf of the Ministry of Agriculture, Rural Development and Environment (MARDE)

Type of action: Public Procurement for staff on a contract basis

Work description: Assist in monitoring and ensuring the project implementation according to the rules and requirements of the MARDE.

The Information Service Department will undertake all public procurement procedures and closely monitor the development of different modules. The aim is that this service will be provided by the G-Cloud/Public Cloud ecosystem described in component 4.2.

The target group will be the Producers Organisations recognised by the Competent Authority. To this end, in order to be successful, the project will ensure that at least 60% of Producers' Organisations will be able to access and operate the platform. In order to achieve this, a short training will be sought through the procurement process.

During Year 2 to Year 4 all the infrastructures will be established/leased and be fully operational, whereas, the adoption of a new law on the unfair practices in transactions in the local fresh produce market by the House of Representatives, will support and enhance the results of the platform. According to the draft Law on Unfair Trading Practices (UTPs) in the food supply chain of agricultural products in Cyprus", approved on April 6, 2021 by the Council of Ministers, UTPs will be prosecuted by the Competent Authority (Department of Agriculture). Through the proposed legislation, the State will target commercial activities between two or more trading parties that deviate from good commercial conduct and are contrary to good faith and business ethics. In this context, the new legislation will address practices such as unilateral and retroactive amendments to contracts, last minute cancellations, payment deadlines longer than 30 days, payment for damaged or unsold products and other actions affecting those involved in the production and distribution chain of agricultural products.

The phenomenon of Unfair Trading Practices (UTPs) in the agricultural sector brings serious negative consequences for the farmer, such as loss of income, higher production costs than estimated, difficulties in production planning, overproduction of products and waste of food. The phenomenon also limits both the purchasing power and the choices of consumers and concerns all sectors of the economy and affects all households, with social and economic implications. The seriousness of the problem is proven by its legal regulation at European level, with the issuance of a relevant Directive in 2019. In Cyprus, at the initiative of the MARDE, relevant research and detailed recording of UTPs that are located in the agricultural sector and adversely affect the producer and consumer were carried out through ARI. The findings of this research were taken into account in the drafting of the legislation, with the clear aim of eliminating the negative effects of these practices on the incomes and benefits of both farmers and consumers.

State Aid

The above reform abides to Article 31 of the Commission Regulation (EU) 702/2014 (ABER), as per consultation with the Office of the Commissioner for State Aid Control in Cyprus.

Target population

Although the target population is the entire farming community of Cyprus, including farmers and producers who will have access to the electronic platform, the focus group will be Producers Organisations and big enterprises involved in the agricultural sector.

Timeline

Q2 2022: Adoption of new law on the unfair practices in transactions in the local fresh produce market by the House of Parliament.

Q2 2024: Go-live with a new fully operational platform for recording transactions in the local fresh produce market.

- **Reform 3: Genetic improvement of the Cyprus sheep and goat population**

Challenges

The primary sector in Cyprus faces various challenges in the last decades, including the lack of investment in new technologies, methodologies and business models that would render it competitive. In particular for sheep and goat farming and associated income, the sector lags behind in adopting new processes on farming, in implementing productivity improvement as regards milk production, in order to have adequate income from quality products such as milk, good negotiating power in the milk and halloumi cheese production and value chain, as well as to be resilient in the face of adverse climatic effects, lack of successors, aging workforce etc. Sheep and goat farmers not only need to be directed through a comprehensive transformation of their operation that would benefit their livelihoods, but also remain the key players in providing the halloumi cheese industry with enough milk to produce quality cheese, especially in accordance to the halloumi cheese Protected Designated Origin (PDO) specifications, and to cover the growing export demand for this product.

Lack of adequate training and guidance, inadequate record keeping on farms, little, if any, coordination and cooperation among sheep and goat farmers, and lack of accurate data to make informed decisions regarding selecting the genetically superior animals for breeding to achieve increased productivity, are all challenges that will be addressed with the proposed reform.

Objectives

In line with existing national strategies for the support of the sheep and goat sector, the national plan for the genetic improvement of the Cyprus sheep and goat populations, the Cyprus Smart Specialisation Strategy, and the nationally funded research project AGRICYGEN, this reform aims to employ cutting edge genomic technologies in Cyprus' sheep and goat production, crop production and ecological enhancement of Cyprus' soils. The objective of this Reform 3 is to enhance the productivity and sustainability of the primary production sector through the promotion of agrotechnology, advanced reproduction and genomic improvement of sheep and goats to optimise the production of dairy products. It consists of specific measures to implement the latest technological, methodological and digitisation advancements in small ruminant production, with respect to animal genetic improvement, in order to expedite and increase the accuracy of productivity upgrade per animal and for the whole farm.

Through all the above, this reform will pursue the implementation of the national plan on genetic improvement of the Cyprus sheep and goat populations. The specific aims of these reforms are the following:

- Support of the sheep and goat farmers to upgrade their record keeping on farm, their production processes, product quality evaluation efforts and participation in the nationally funded AGRICYGEN project that will provide them with advanced knowledge and guidance on the genetic merit of their animals. Training to farmers taking part in this measure will be provided regularly at different stages of its implementation, in the form of regular consultations and demonstrative actions on farm by ARI personnel that will be hired for this purpose. The same personnel shall also monitor the progress made on all upgrades and data collection efforts, and assist with improving relevant processes, when necessary.
- Knowledge on the genetic value of their animals will allow them to make informed decisions on animal reproduction to achieve significant improvement of their farm productivity, primarily in terms of milk production, in an accelerated and accurate manner.

The direction of this reform will be to restructure the sector through the provision of incentives and subsidies to sheep and goat breeders. The objectives and requirements to receive these incentives under Reform 3 will be to:

- (a) upgrade their farm infrastructure,
- (b) digitalise on-farm data recording,
- (c) conduct analyses to determine the quality of the milk produced and sold to dairy units,
- (d) utilise genomic evaluation services at ARI and
- (e) implement recommendations for improved reproduction and genetic selection of animals.

The farm infrastructure upgrades will be relevant to milk recording and thus restrained to upgrades connected with either installing or upgrading the milking parlour, milking units, milk metres upgrade or replacement, sensor replacement, milk refrigerator upgrade/replacement, animal capture unit upgrade and other automations for milk data collection.

The Agricultural Research Institute, through the nationally funded research project AGRICYGEN uses independent national funds to pursue genetic characterisation of sheep and goats at government experimental farms, setup a reference population for genomic evaluations and develop genomic evaluation methods for Cyprus sheep and goats independently to this reform. Through Reform 3, AGRICYGEN will utilise the phenotypic data that will be collected on the participating farms and obtain biological samples to pursue genomic profiling for selected animals on each farm. The costs of running the genomic mapping for private farm animals will be covered through Reform 3, to provide in-kind support to the participating farmers, within the overall scheme of Reform 3. Costs for work on association of animal phenotypes and genotypes will be born within AGRICYGEN and will lead to genomic evaluations and selection of the best animals for reproduction in order to improve animal and farm productivity within Reform 3. The support planned with Reform 3, when combined with the implementation of the AGRICYGEN research findings to assess animal genomic merit will lead to a strategic reform of the animal production sector, as part of the primary economic sector, and lead to sufficient capacity building, in order to effectively support the secondary sector of dairy product manufacturing and halloumi cheese exports, in accordance to the specification of the recently granted PDO certification for halloumi cheese.

Implementation

For the reform to be implemented, coordination and collaboration among various departments of the MARDE is required. ARI will set up the requirements/criteria for deciding on the eligibility of small ruminant breeders to receive the reform incentives, along with the necessary tasks that need to be completed by the farmers. In addition, ARI will use the collected information on farm and biological samples from the animals to conduct the genomic evaluations through the AGRICYGEN project, and then provide the farmer with ranking of the animals based on genomic merit, and guidance on optimal reproduction schemes for increased farm productivity. The Department of Agriculture needs to oversee and check farm operations as per its mandate, and the incentive instalments to be paid through a competent authority, such as the Cyprus Agricultural Payments Organisation, which has all relevant procedures and databases in place for this type of activity on behalf of the MARDE.

The institutional capacity of the MARDE departments involved in the proposed reform is of high standard. Employment of new personnel dedicated to liaising and assisting the farmers is essential to facilitate the proposed actions within the reform and will multiply the overall capacity of public services to support the primary production sector. Because of the interdepartmental nature of the reform, coordination of this effort should be pursued through assigning responsibility to an officer or a team within the administrative unit of the MARDE, in order to ensure successful implementation.

Relevant synergies and avoidance of duplication will also be pursued between this reform and other related measures through the Cyprus Common Agricultural Policy (CAP) plan for the next period (2021-2027). Complementarity with the CAP strategic plan is envisioned, since the CAP strategic plan will encompass measures directed to trigger farmer investment to improved farm facilities, new equipment and for promoting activities to enhance animal welfare. However, the

proposed measure differs significantly from the CAP strategic planning. Reform 3 is associated with long-term, contractually binding commitment for:

- (a) productivity-related farm digitisation and data collection at the animal level,
- (b) access of ARI scientists to phenotypic information and to animals for conducting genomic evaluations and
- (c) implementation of ARI recommendations to achieve genetic improvement of sheep and goats and associated increased milk productivity and milk quality.

The stakeholders that stand to benefit from the reform will be actively involved in its implementation from the beginning.

Stakeholder Group	Reform targets
Industrial community/primary sector/SMEs within primary sector (farmers, breeders, dairy value chain etc.)	<ul style="list-style-type: none"> ● Addressing the challenges and gaps that the small ruminant industry stakeholders face for fulfilling the halloumi PDO ● Economic benefits from stabilising the halloumi industry and trade ● Advancement and sustainability of the sheep and goat breeder and dairy industries
Public authorities (including policy makers and extension services)	<ul style="list-style-type: none"> ● Implementation of national plans to advance the sheep and goat production sectors using state-of-the-art tools and research findings ● Support existing research and innovation initiatives (AGRICYGEN) to directly reach the relevant stakeholders and effectively address local issues and shortcoming of economic importance ● Training of more individuals to work in extension services ● Provision of services to industry that the government can offer ● Assistance in getting industry stakeholders to become organised and collaborate effectively
General public (including environmental groups)	<ul style="list-style-type: none"> ● Reform will have positive impact on society and the economy, offering opportunities for social innovation ● General public concerns and needs taken into account when setting priorities for reform ● Promotion of farmer generation renewal through advanced breeding strategies, genomic and smart phenotyping tools ● Advancing the role of rural women also in the context of SMEs focusing in promoting local dairy and other farm products

Sheep and goat breeders and associated breed society members fulfilling specific criteria in terms of farm and animal population size, existing on-farm infrastructure and capacity for upgrade, farm and animal data already on record and reproductive management, along with farm productivity, will receive yearly payments of incentives upon provision of proof for completion of specific agreed upgrades and/or data collection. Data collected on farms will then be analysed by ARI, along with genomic analyses of biological samples from sheep and goats. Genomic evaluation results will be returned to the farmer, to proceed with optimal reproduction to achieve

increased on-farm productivity. This process will be repeated for the last two years of the reform.

State Aid

The above reform abides to Article 27 of the Commission Regulation (EU) 702/2014 (ABER) and to the article 1.3.1 (Aid to the livestock sector) of the European Union Guidelines for State Aid in the agricultural and forestry sectors and in rural areas, as per consultation with the Office of the Commissioner for State Aid Control in Cyprus.

Target population

Sheep and goat breeders and associated breed society members, public authorities.

Timeline

Implementation of the reform will start in 2022, in order for the AGRICYGEN project to establish the necessary genotyping capacity to be in a position to conduct genotyping and genetic merit evaluation for the sheep and goats of private farms. Farmers will gradually receive funds to upgrade farm infrastructure, collect production and reproduction data in digital format, set up pedigree records, and conduct milk quality analyses. The above activities (excluding infrastructures that will only be setup or upgraded once, such as milking parlours) will be supported and will continue yearly. All this information will be stored and analysed by ARI, in order that all farmers will have genomic information for their animals for at least two consecutive years, achieving increased productivity on farm and ensuring overall farm sustainability.

Q4 2023: 40 farmers (out of 2.000) upgrade their record keeping on farm, their production processes, product quality evaluation efforts and participate in the nationally funded AGRICYGEN project.

Q2 2024: Farmers have adopted advanced recording and genomic evaluation processes, and selected the best performing animals based on genomic analysis outputs of at least 15.000 animals.

- **Investment 1: Construction of a collaborative marine aquaculture infrastructure (port and land facilities) in Pentakomo coastal area**

Challenges

Aquaculture is an integral part of Cyprus's national fisheries sector and is an important activity of the wider productive primary sector. Aquaculture represents over 80% both in terms of volume and value of the total annual national fisheries production. Cyprus is among the top 5 EU countries as regards to aquaculture contribution in the national production of fisheries products. Marine aquaculture represents more than 99% of the total national aquaculture production and its produce is the 3rd most important export product in terms of value from the agricultural primary production sector. The sector has been growing at 5 - 6 % during the last fifteen years.

Seven out of the nine licensed marine offshore aquaculture units present in Cyprus are located and currently operating in the wider area of Vasilikos - Moni. Up to 10 years ago aquaculture units in this area used the port facilities of Vasilikos Port and Archirodon Port for the docking needs of their vessels as well as for many other aquaculture related activities requiring port infrastructure. In view of new developments and the planned energy centre in the Vasilikos Bay area that will now be developed, aquaculture units were obliged to use only the very small Port of Archirodon and the fishing shelter of Zygi, which are not properly configured and not equipped to meet, cover and accommodate their current needs. Additionally, the Archirodon port will not be available soon as it will be used for the energy centre needs.

The need for the appropriate equivalent infrastructure is crucial, in order to overcome the negative impact (acting as bottle-neck) stemming from the above developments, which will

otherwise cause significant problems as regards the operation of the offshore aquaculture units, as the linkage between land and sea is of crucial importance for the viability of this activity.

Objectives

This investment aims to cover the gap of not having sufficient, proper, and functional port and land infrastructure for covering the daily needs of this activity. The construction of a collaborative infrastructure (port and land facilities) that will specifically be designed for aquaculture activity, will cover existing as well as future needs of more than 70% of the marine aquaculture units operating in Cyprus. This is of major importance in order to allow the smooth operation of this sector, maintain its viability, improve its competitiveness and provide for its future further sustainable development and expansion.

The investment concerns the construction of a collaborative infrastructure for marine aquaculture in Pentakomo area, that will be specifically designed to accommodate the needs of marine offshore aquaculture activities (safe service vessels docking, maintenance areas of equipment, storage areas, loading and unloading areas, fuelling station, etc.). The investment will cover the construction of a small port with the required and appropriate land facilities that will have the capacity to serve 7 aquaculture units with about 40 service vessels of various sizes (6m to 25m).

In general, the investment is expected to:

- Contribute in reducing dependence on limited and vulnerable sectors of economic activity and enhancing self-sufficiency in critical sectors
- Facilitate growth - retain and increase employment
- Strengthen the resilience, competitiveness and contribution of the primary sector to sustainable development
- Contribute towards protecting and enhancing biodiversity, wildlife and environment and achieving the objectives of the Biodiversity Strategy
- Foster the transition towards a greener growth model
- Contribute towards achieving the objectives of the Blue Growth Strategy
- Contribute towards achieving the objectives of the F2F Strategy
- Comply with the EU sustainable aquaculture development strategic guidelines

The investment will provide an appropriate infrastructure for 7 out of the 9 units of the Cypriot marine offshore aquaculture sector, comprised by SMEs, that represent about 75% of total national aquaculture licensed production and 50 - 55% of the total national fisheries production. The target is to ensure the long-term viability of the units as well as to maintain the positive annual growth of the sector.

Furthermore, the appropriate infrastructure will provide for future expansion and further development opportunities of this activity to deeper waters. In addition, based on the spatial study that was conducted for the development of this infrastructure and the proposed location, it is expected that there will be a reduction in half the marine routes and travelling distance of the service vessels, thus reducing by 50% the related emissions. The above will contribute in improving the environmental performance of marine offshore aquaculture. Also, for the operation of the infrastructure the use of alternative sources of energy and specifically photovoltaic systems will be examined.

Implementation

The investment will be implemented by the Public Works Department in cooperation with the Department of Fisheries and Marine Research. Both authorities have the experience and the know-how as well as the administrative capacity for the successful implementation of the investment.

The construction of the infrastructure will be done through a public procurement procedure that will include specific time frames for the deliverables thus ensuring that funds will be absorbed in a timely manner.

State Aid

Not applicable as the Investment does not constitute economic activity.

Target population

Seven out of the nine units of the Cypriot marine offshore aquaculture sector will be served.

Timeline

Q1 2023: Signing the contract for the construction of collaborative marine aquaculture infrastructure (port and land facilities) that will specifically be designed for aquaculture activity.

Q1 2026: Delivery of a fully functional / operational collaborative marine aquaculture infrastructure (port and land facilities) that will specifically be designed for aquaculture activity and will cover the needs of more than 70% of the marine aquaculture units operating in Cyprus.

- **Investment 2: Enhancing the existing isotopic databases of Cypriot local traditional food/drinks, by developing a Block Chain platform, to ensure their identity**

Challenges

Authenticity and safety are key issues for the protection of traditional food products. To this end, EU and the Member States have developed quality branding schemes and specific regulation, providing assurance to consumers and other stakeholders about the authenticity and quality of traditional and local foods (such as wine and alcoholic beverages) which is of prime importance in adding value to the European Agri-food economy. The concept of authenticity can be broken down into two main components: the composition and the origin of food. To qualify as authentic, a food must meet the requirements of legislation on the label and description of any geographical origin, raw materials and production processes. The competent control bodies need to develop therefore, sophisticated methods of certifying authenticity, which require the use of advanced technology.

Over time, the State General laboratory (SGL) has established isotopic databases for Cypriot food and drink (such as honey and wines), which are used to certify the origin of unknown products from the market or for the registration of traditional products (e.g. "Zivania" spirit). However, there is a need to verify the above isotopic databases, to enrich them with additional stable isotopes and to extend them to new products, actively contributing to ensuring the authenticity of the food supply.

Objectives

In view of the globalisation of the food supply chain and the free movement of goods, interest in the detection of adulteration in food has increased. For authentication a combination of analytical methods is mainly used in detecting small differences on the botanical/ geographical origin and adulteration in traces. The investment aims to directly address the issue of harmonisation of the authenticity of Cypriot products as well of European food in general, by using stable isotopic databases, utilising thus, research and technology.

By creating a network of participants from the Ministries (Health, Agriculture, Natural Resources and Environment and Finance) and the competent authorities, producers, industry, academia and research institutions, technology providers, consumers and the Cypriot community in general, the project aims to strengthen the ability to ensure quality and safety in food supply.

Cyprus, which has various unique foods and drinks that are popular abroad, can use the proposed technology to register them, but also to protect them and improve the brand's image on domestic and international markets. The market potential of this blockchain system is enormous as the authentication will cover all 9 traditional food and drink products and the halloumi cheese as well. The halloumi cheese alone justifies the investment in the blockchain authentication technology as its export accounts for 220 m EUR (data of 2020) while the local consumption in Cyprus reaches 120 m EUR (2020). Consequently, the market potential of this system is significant. In the future, the resulting isotopic database will be linked to other European ones coordinated by the Joined Research Centre of EU.

In addition, using the blockchain technology, different stakeholders from the food supply chain will be able to upload their data, with easy-to-use user interfaces for both producers and consumers, as well as the competent control bodies. Blockchain technology uses cryptography to add a layer of security to the data stored on the network. The decentralisation feature, on top of cryptography makes blockchain provide better security than other systems. In this way the system is easily accessible for all stakeholders, it is reliable and unbiased due to high security of data. Regarding the authenticity certification, it will be centralised and will be provided by the State General Laboratory.

As regards the competent control bodies, there is a pressing need to equip staff with modern advanced digital solutions, such as databases which will be constantly updated. The employment of young scientists with digital skills for the project, will provide an opportunity to update these skills.

The project will achieve the above aims, by fulfilling the following specific objectives:

- Establish a network of expertise that will inform regulatory and production stakeholders about food authenticity issues and problems, existing datasets, available methodology and sharing data and information.
- Prioritise research requirements and controls to fill the gaps of the production and the market.
- Develop fit for purpose verification methodology for at least three areas of authenticity (dairy products, honey and spirits) that are significantly affected by adulteration and fraud.
- Investigate consumer attitudes and perceptions toward food authenticity and traceability, of national and European products, in home and emerging markets (including Chinese products as a case study).
- Contribute to the support for producers and indirect strengthening of the economy.
- Provide practical tools and useful information about the first materials and imported products from the same categories, that can be useful into food industry production and supply chains for assuring the integrity of food.
- Ensure knowledge transfer of “IsoDataBase” outputs to the food industry, regulatory, enforcement, research and consumer stakeholders.
- Link the database to other European ones coordinated by the JRC.
- Employ young scientists and contribute towards tackling unemployment.
- Build a configurable web & mobile Enterprise Resource Planning (ERP) that can convert any paper-based supply chain to digital. This will enable collecting traceability data from different stakeholders across the supply chain (farms, food producers & food processors, logistics & transportation partners, laboratories, distributors, retailers).

Implementation

The proposed integrated database will be available both for market control and for the registration of Cypriot products - traditional and local. This activity is expected to be sustainable, as it will have the potential for continuous enrichment.

The database will be linked to the construction of a blockchain based food traceability system for Cypriot food products, using European Blockchain Services Infrastructure (EBSI) that includes building web and mobile digital systems to collect data, establishing interoperability, connecting different data sources to the blockchain network, and building a data visualisation platform to track and trace the food products across the supply chain. The key feature of the blockchain will be instant and fast traceability (product recalls are accelerated through direct access to end-to-end traceability data showing the origin, location in real time, and status of any food product with sufficient data on the blockchain). There is no intention to build an ERP for the supply chain. Each stakeholder will use its own ERP/ system.

The implementing authority is the General State Laboratory. Two laboratories (Food Authenticity Laboratory-NMR and Food Composition, Food Quality & Nutritional Value Laboratory) will participate, with 2 Senior Chemists and 10 Chemists, while at least 2-5 new scientists will be employed. The necessary Cloud Services will be offered by Public Cloud and cooperation with a private company will also be required to create the Blockchain platform. The supplier of the blockchain technology will be selected via a public procurement process respecting all the provisions of the national law about public tenders.

The deliverables of this Investment are summarised as follows:

- Development of the Blockchain Use Case. A database in which the data will be registered automatically.
- Setting the critical points according to the standards according to which the authenticity of the products will be checked.
- Installation of the database in the digital blockchain infrastructure.
- Development of connections with the systems of the involved bodies throughout the supply chain
- Testing.
- Pilot applications for the protected (to date) products.
- Operation Manual.
- Training of supply chain operators and officials of the General State Laboratory on the system.

State Aid

Not applicable as the Investment does not constitute economic activity.

Target population

The State General Laboratory (SGL) of Cyprus. Ultimately the beneficiaries of the investment will be the local and international consumers of traditional Cypriot food and drink.

Timeline

Q4 2021: Purchase and Install New Liquid Chromatography- Isotopic Ratio Mass Spectrometer (LC-IRMS) equipment for isotopic characterisation.

Q1 2025: Integrated Isotopic Databases (for at least 10 traditional/local foods/ drinks) connected to a blockchain platform.

- **Investment 3: Upskill the existing farming community and professionalise future labour force by investing in human capital**

Challenges

The majority of farmer managers in Cyprus have practical experience in the farming sector, 72% based on FSS 2016 data (Cyprus Analytical Factsheet https://ec.europa.eu/info/sites/default/files/food-farming-fisheries/by_country/documents/analytical_factsheet_cy.pdf). A small proportion of farm managers have full agricultural training, around 1%. Cyprus in comparison with EU average ranks significantly lower.

Knowledge and innovation can play a key role in helping farmers and rural communities meet current and future challenges. Although there is already agricultural research providing new knowledge, it tends to remain fragmented and poorly applied in practice. Further, insufficient or very slow uptake of new knowledge and innovative solutions in agriculture, hinders the smooth transition to a more sustainable agriculture, as well as the competitiveness and sustainable development of the agricultural sector.

Objectives

Developing a competitive primary sector is at the core of a resilient economy and at the core of the new economic growth model. Increasing the level of human capital in the agricultural sector in Cyprus would mean that the sector would become more professional. Practically, this would translate to more efficient use of limited resources through investing in newer technologies which would result in a more competitive agricultural sector and would also mean that the sector's export potential would become more plausible.

The operation of a well-structured Agricultural Knowledge and Innovation System (AKIS) (implemented under the Common Agricultural Policy) with clear objectives and roles on the part of the actors involved is crucial for achieving a time-solid and efficient system for the transfer of knowledge and innovation that will bridge the gap between practical application on the one hand and knowledge, science, experience and research on the other. The investment aims to complement the AKIS and enhance its results, through capacity building and knowledge transfer.

Implementation

The main goal of the implementation of AKIS is to enhance the development of innovation projects and the communication and implementation of the results of these. In Cyprus, the operation of AKIS can become very effective since it already operates, to a satisfactory degree and on a similar basis, through the Agricultural Extension Service. Cyprus has a relatively comprehensive and robust system, however the Department of Agriculture and the National Rural Network (which is strengthened and transformed into a Common Agricultural Policy Network during the programming period 2021-2027) are key pillars of support and operation of the Agricultural Knowledge and Innovation System. Further, the Strengthening Agricultural Extension will continue through the Accreditation of Consultants and Consulting Services through CECRA and the Agricultural University of Athens, (a process already started and progressing). Many of the actors that have a role to play in the AKIS system (such as the Department of Agriculture, ARI, other Research Institutions), do not currently have developed structures for interacting with each other and therefore knowledge that has been acquired or produced, many times, remains in the body that produced it without ever reaching all potential users such as farmers, businesses, research/university institutions and organised groups, and vice versa, and valuable knowledge obtained from the production process may never reach those actors who have the means to develop and/or disseminate knowledge.

In addition to the strengthening of AKIS, there is a need to strengthen the current educational programme provided by the Department of Agriculture so that it improves current areas taught,

such as Integrated Pest Management (IPM), hydroponic environments, management and financial literacy, use of less hazardous pesticides and animal and public health, with other novel and new areas in the sector such as smart irrigation systems, precision farming, robotisation, etc. The novel and new areas require the acquisition of digital skills and the acquisition of these will be part of the educational programme.

In this context, the agricultural sector will be supported to achieve full agricultural training by offering scholarships to young Cypriots secondary school graduates who are willing to study Agriculture related degrees in the Cypriot Universities (e.g. Degree in Agriculture Sciences, Biotechnology and Food Science at the Cyprus University of Technology). The Foundation of State Scholarships of Cyprus, in cooperation with the Department of Agriculture, the Agricultural Research Institute and local Universities will offer scholarships to Cypriot students for studies in Cyprus in the related fields and on specific demands. The scholarships would be contingent on the scholar establishing an agricultural business in Cyprus within three years of graduation, ensuring that the scheme will have a lasting impact on the sector. In the next two years a total number of 10 scholarships will be granted, 5 in each year. The maximum amount per scholarship will be 10.000 euro and the grants will be available in yearly basis.

State Aid

The above investment abides to Article 21 of the Commission Regulation (EU) 702/2014 (ABER) and to the article 1.1.10.1 of the European Union Guidelines for State Aid in the agricultural and forestry sectors and in rural areas, as per consultation with the Office of the Commissioner for State Aid Control in Cyprus.

Target population

The farming community in Cyprus, existing and future.

Timeline

Q4 2022: At least 5 scholarships granted by the Foundation of State Scholarships of Cyprus, in cooperation with the Department of Agriculture, the Agricultural Research Institute and local Universities.

Sub-Component 3.1.2 Innovative and competitive secondary sector

Main challenges

The main challenges expected to be dealt with for developing an Innovative and competitive secondary sector are the following:

- Need to enhance productive investments in existing and new sub sectors
- Low productivity and lack of economies of scale
- Need to build a close and active partnership between government and business, which is the keystone of a well-managed competitiveness strategy. It is a major challenge for the country to be able to increase the participation and enhance the role of more innovative Companies.
- Need to increase the efficiency with which firms or sectors improve their export capabilities, including through the use of new technologies.
- Increasing global competition and high transport costs due to Cyprus island status
- Accessing up-to-date market information and ensuring that businesses production levels and capacity could increase in order to expand their business abroad.
- The coronavirus pandemic which has changed the trading process by increasing electronic commerce.

Objectives

The objective of the component is to reduce dependence on limited and vulnerable sectors of economic activity and enhance self-sufficiency in critical sectors, as well as to increase the resilience, competitiveness and contribution of the secondary sector to sustainable growth. The impact of the component is expected to be positive in all areas such as growth potential, the digital transition and mitigation of the economic and social impact of the crisis.

In relatively small economies such as Cyprus's the capacity to enhance exports plays a strategic role in fostering the diversification of the country's economic base and improving growth on a sustainable basis.

The set of investments envisaged in order to increase Cyprus exports of products in the scope of the innovation of the secondary sector, support the given component and fit within an overall national strategy in the relevant trade policy and exports facilitation field.

- **Investment 4: Initiating the setup of the first Eco-Industrial Science Park**

Challenges

At the moment there is no alignment with Cyprus's Vision 2035, in the context of the new long-term growth strategy and growth model, which envisages the growth of the light manufacturing sector. Currently, small and medium sized businesses dominate Cyprus' aggregate manufacturing sector, with only 11 large companies with over 249 employees, while 88% of firms have nine or fewer employees. Not only does this limit cost competitiveness due to scale, but it also limits the ability of companies to invest in productivity-enhancing technology. The latter is also hindered by the relative lack of digital skills within the Cypriot economy.

Objectives

The Government of Cyprus, realizing that most of the manufacturing industry focuses on low value manufacturing and that developing a competitive manufacturing sector is at the core of a resilient economy and at the core of the new economic growth model which aims to drive an increase in investment and productivity, is committed to make the necessary reforms.

Specifically, the Government's objective is to set the framework in place to encourage the growth of greenfield direct investment and host a cluster of light manufacturing entities that focus on renewables (emphasis on solar), agri-tech solutions, and ICT. To do this, Cyprus needs to build a dedicated park with specialised access to government services, customs services, local universities and specialised suppliers. The establishment of the park comes under the Government's policy for the development of industrial zones.

Cyprus already has industrial zones scattered across the island that can be leveraged or re-purposed for this objective and so under these circumstances the undertaking of a relevant study that would investigate the possibility of establishing the Eco-Industrial Science Park is essential.

Implementation

Firstly, a task force will be established to own the end-to-end effort. Upon defining responsibilities and accountability for the necessary actions, the task force will set out by identifying the appropriate technical expertise to support the effort – secured through a vendor selection and funding process.

The study to be undertaken will intend to design and craft special economic zones for manufacturing of tech equipment focusing in the areas of renewables (emphasis on solar), agri-tech solutions, and ICT. The following are some of the factors that will be part of the study to make the zone a more holistic and full-service offering that will attract companies to relocate:

- Location: consider proximity to university research centres and a well-developed transport network.
- Clustering: catering towards attracting companies with synergies across the focus areas mentioned above, which align to the Cyprus Vision 2035 of the new growth model.
- The provision of incentives could be considered.
- Logistics: establishment of dedicated, on-site support services and logistics (e.g. customs services, visas, etc.) services so as to attract manufacturing firms which are part of global value chains and to provide the right frameworks for a strong, seamless business experience
- Other: the study will also explore the needs and wants of foreign manufacturing companies from a non-economic point of view so that the park truly offers the holistic suite of services and offerings to attract the talent the Government intends.

Target population

The eco-industrial science park will target foreign and local manufacturers (particularly those in the agri-tech and green and health sub-sectors) and local Cypriot universities.

State Aid

Not applicable

Timeline

Q3 2023: Preparation of an Action Plan for the establishment of the Eco-Industrial Science Park and approval by the Council of Ministers

- **Investment 5: Creation of a National Commercial Identity and promotion of the traditional product “halloumi”**

Challenges

The severe effects of the recent COVID -19 crisis, especially in the tourism sector, have manifested once more the unsustainable nature of the growth model that Cyprus has been following for decades now. In addition, the high concentration in a very limited number of sectors, makes the economy highly vulnerable to external crises.

In this context, and in the context of the strategy for reinforcing the secondary sector the MECI is trying to establish a brand name for the Cypriot products in order to promote exports abroad.

Objectives

The suggested investment concerns the conduction of two studies:

1. A study (including consultation) on the creation of a National Commercial Identity “Made in Cyprus” (branding) focusing on the quality and structural characteristics of Cypriot products and services combined with elements of the tradition and history of the island. Through the consultation process with the relevant stakeholders, the product sectors and services areas that should be included in the branding promotional efforts of “made in Cyprus” will be identified. Regarding the products and services that are to be promoted under a National Commercial Identity, at a first step, these are thought to be the PDO/PGI products as well as innovative products and services along with products and services for the circular economy.

The creation of a National Commercial Identity will aim at building and managing a good reputation for Cypriot products and services, highlighting their distinctive characteristics. It can facilitate penetration into foreign markets as often the successful transfer of this image is just as important as the quality of exported goods and services. The creation of a

new “Branding” should be accompanied by supportive actions such as the creation of networking and promotion tools for Cypriot products and services and the new commercial “image” that will be created.

- A study from a consultancy firm for implementing a strategy for halloumi cheese in order to increase its distinctiveness as an authentic Cyprus product and designing a promotional and awareness campaign. Halloumi is the most important agricultural product exported from Cyprus and its reputation is extensive globally. The Republic of Cyprus, via its various institutions and governmental bodies, owns the trademark Halloumi in many countries all over the world, including the European Union. In addition to the above, the European Commission adopted on 12 April 2021 the application of the Republic of Cyprus and proceeded in registering *Χαλλούμι*/Halloumi/Hellim as a protected designation of origin (PDO), protecting the valuable name against imitation and misuse across the EU.

These studies’ main aim is to contribute and assist businesses in general, to promote their products and services and increase their overall export potential on the basis of the “made in Cyprus” branding.

Implementation

The responsible authority for this investment will be at central level, the Ministry of Energy, Commerce & Industry via the Trade Service. The resources will be allocated to consultancy firms in order to provide substantiated reports.

Stakeholders’ involvement is necessary and will be one of the prerequisites for the consultant that will perform these studies. Due to the fact that the trading, services companies and the manufacturing sector are huge players in the improvement of the innovation and promotion of the sectors it is required that they are involved all the way.

The main potential challenge to the reform is on the one hand the need to build a close and active partnership with business and to attract companies committed to be involved in the implementation of this project and on the other hand for business expectations to match the perspective of end-user, consultant and sponsors’ view. These will be best treated via stakeholders’ involvement in the planning and the execution of the project from the beginning and during the duration of the studies.

It is noted that the measures included in both the Rural Development Plan and the Strategic Plan will distinguish the support provided between actions proposed only by producers and actions proposed by promotion and advertising agencies.

In addition, measures under the Strategic Plan -CAP for promotion at EU level or in third countries will be separated from measures implemented by the Ministry of Energy, Commerce and Industry. Each application submitted to the two plans will be cross-checked to avoid double funding.

Furthermore, there could be a differentiation in the amounts, e.g. campaigns under a specific amount to be supported through the Agricultural Fund (Strategic Plan -CAP) and campaigns beyond this amount to be supported through the Recovery Fund.

Target population

The Cyprus businesses in the sectors of agriculture, manufacturing and services

State Aid

Not Applicable

Timeline

Q1 2022: Adoption of Action Plans for (1) assisting businesses to promote their products and services on the basis of the “made in Cyprus” branding, and (2) for increasing the distinctiveness of the halloumi cheese as an authentic Cyprus product and designing a promotional and awareness campaign.

- **Investment 6: Scheme for modernisation and digitalisation of enterprises engaged in manufacturing and trading of agricultural products**

Challenges

1. Financial barriers

The sudden loss of demand and revenue for businesses due to Covid-19 pandemic, severely affected enterprises' ability to function and caused severe liquidity shortages. Liquidity constraints may result in:

- lack of interest for businesses to invest
- inability to complete investments due to difficulties in raising funds

Businesses and particularly SMEs, experience a sharp deterioration of liquidity due to disruptions caused by the pandemic and containment measures. The lack of budgetary and funding capacities of enterprises, prevent them from investing in the infrastructure and renewal of their businesses.

It is essential to ensure that companies are not forced to reduce their capital investments as a result of the pandemic. The proposed Grant Scheme can provide the needed financial support, allowing firms to grow and invest into the recovery, raise productivity and become more competitive, create employment and thus contribute to economic development of the country. Additionally, the Scheme will help strengthen the digital identity of businesses and promote digital entrepreneurship.

2. Limited ability of SMEs engaged in the agricultural sector to digitalise

Low awareness of the available digital solutions and their potential benefits and inadequate technical capabilities to implement digitalisation solutions create barriers to digitalisation of smaller, family-owned SMEs engaged in the traditional – agricultural sector. Owners and managers often do not know how and where to apply digital solutions to business processes and employees often need technical know-how to integrate such digital solutions.

Objectives

The goal of the component is to mitigate the impact of the crisis and strengthen the resilience of the agricultural sector, promote diversification of the economic activity and accelerate economic growth.

The proposed investment aims to directly incentivise investments towards the setting up of a new business or the technological advancement of existing businesses, thus helping them bring to the market significantly improved products, increase productivity and strengthen their growth prospects, create local jobs and provide the base for sustained growth of the overall economy.

The grant scheme will provide aid to existing and newly established enterprises, especially SMEs, engaged in the processing, marketing and development of agricultural products covered by Annex I of the Treaty on the Functioning of the European Union, except wine, wine vinegar and activities related to fisheries and aquaculture.

The scheme will assist enterprises to finance eligible expenditure related to investments in tangible or intangible assets. Enterprises will be enabled to modernise and improve their

production facilities, expand, increase their productive capacity, introduce new technologies and procedures and develop new or higher quality agricultural products. The funding will also help businesses to improve their digital capabilities thus helping them improve their processes, gain a competitive edge and achieve long term success.

Consequently, the support to be granted will aim to improve the overall performance of the enterprises, increase their competitiveness, help them develop their products, create new jobs and grow. Beneficiaries can apply for the aid by responding to calls for proposals.

Implementation

Support will be granted as a percentage on the eligible costs concerning the purchase of new machinery & equipment, construction of new or expansion and upgrading of factory buildings and other general costs (e.g. consultation fees, implementation of quality management systems and food safety). Support will also be granted on specified eligible costs for digitalisation of businesses, including the acquisition of specialised software (CRM, Payroll System, ERP etc.), network equipment (Routers, Firewalls, etc.), Servers, Storage Networks, UPS website development (incl. e-shop) etc.

The design of the support scheme will ensure that the financed investment respects the 'do no significant harm' principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call for tenders of the Scheme.

State Aid

The Scheme will be implemented under Regulation (EC) No. 1407/2013 of the Commission of 18 December 2013 based on Articles 107 and 108 of the Treaty on the Functioning of the European Union to de minimis aid or Agriculture Block Exemption Regulation (ABER) 702/2014. Excluded sectors will be considered in the design of the measure.

Target population

Business enterprises engaged in manufacturing and trading of agricultural products which have suffered liquidity issues due to the pandemic that may jeopardise ability to make necessary capital investments.

Timeline

Q4 2024: Provision of grants to 65 Small and Medium Enterprises engaged in manufacturing and trading of agricultural products for their modernisation and digitalisation.

Q1 2026: Provision of grants to 176 Small and Medium Enterprises engaged in manufacturing and trading of agricultural products for their modernisation and digitalisation.

- **Investment 7: Scheme for the enhancement of large enterprises competitiveness in the manufacturing sector**

Challenges

The main challenge that the investment aims to address is the fact that the manufacturing industry in Cyprus is characterised by a general lack of technology-enabled, modern, and energy efficient infrastructure, leading to relatively low productivity, innovation, and high-value production.

A second challenge is that businesses and large enterprises in the manufacturing sector experienced a sharp deterioration of liquidity due to disruptions caused by the COVID-19 pandemic and containment measures. The lack of budgetary and funding capacities of enterprises, prevent them to invest in the infrastructure and renewal of their businesses.

It is essential to ensure that companies are not forced to reduce their capital investments as a result of the pandemic. The proposed Grant Scheme can support in overcoming this liquidity challenge and provide some financial support that allows for capital expenditures and modernisation efforts that aim to allow these enterprises to continue to grow, become more competitive, create employment and thus contribute to economic development of the country.

Objectives

The Scheme's main objective is to support, develop and promote existing and new large enterprises in the manufacturing sector. Activities related to fisheries and aquaculture are excluded. The grants will improve the overall performance of the enterprises and increase their competitiveness. Furthermore, the scheme will help the expansion of existing business through investments that will enhance the technological level, the production process and the productivity.

Eligible expenditure will be in the categories of new machinery/ equipment, and creation/ expansion and upgrading of buildings. The investments will have the potential to reduce energy consumption and increase energy efficiency as they give the opportunity to invest in new and digital upgrade technologies.

The grant scheme will provide incentives to enterprises in order to maintain their activities and employment and contribute to economic growth of the country.

Finally, through the scheme enterprises will be enabled to modernise and become more efficient in the face of intense global competition.

Implementation

The Ministry of Energy, Commerce & Industry will be the responsible body for this investment.

The design of the support scheme will ensure that the financed investment respects the 'do no significant harm' principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call for tenders of the Scheme.

State Aid

The Scheme will be implemented under Regulation (EC) No. 1407/2013 of the Commission of 18 December 2013 based on Articles 107 and 108 of the Treaty on the Functioning of the European Union to de minimis aid or General Block Exception Regulation, Articles 13 and 14. Grants will only be given to enterprises in assisted areas.

Target population

Large enterprises

Timeline

Q2 2022: Issuance of a call for proposals of the Scheme for the Enhancement of Large Enterprises Competitiveness in the Manufacturing Sector following scheme approval by the Council of Ministers

Q4 2024: Provision of grants to at least 3 large enterprises in the Manufacturing Sector to expand their existing business through investments that enhance the technological level, the production process and their productivity

Q2 2026: Provision of grants to at least 10 (out of 11) large enterprises in the Manufacturing Sector to expand their existing business through investments that enhance the technological level, the production process and their productivity

Sub-component 3.1.3 Sustainable, high value-added tourism sector

Main challenges

Tourism is a strategically important sector for the European economy and can play an important role in reaching the goals of the growth and jobs strategy. However, the world has and continues to suffer sizable losses and setbacks due to COVID-19. Communities, large and small, depending on tourism, are shouldering the burden of zero revenues. The above are especially relevant in Cyprus, where income from tourism accounts directly and indirectly for more than 20% of the country's GDP. In the context of the recovery from the coronavirus crisis, Cyprus needs to ensure the competitiveness and resilience of its tourism industry for the future. At the same time, as a pillar of economic activity contributing significantly to the welfare of the local population, Cyprus' tourism policy needs to focus on promoting long term sustainability, as well as territorial cohesion within the country.

The current situation can therefore be seen as an opportunity to further enable the inclusive and sustainable growth of the sector by addressing the existing significant disparity in the distribution of tourists in local destinations within Cyprus, which manifests itself in high concentration of tourists in coastal areas versus the hinterland. This lack of territorial cohesion leads to an uneven allocation of burden on natural resources and impacts on local residents, and results in an uneven distribution of tourism benefits for local economies. This is the time for the sector to accelerate meaningful changes with regard to these inequalities that will make a lasting difference for future generations.

In addition, concentration of tourists in the coastal areas, in the form of sun and sea holidays, is related to the problem of seasonality in tourist arrivals, which centre around the summer months, causing an inefficient utilisation of resources and higher vulnerability to potential external shocks, compared to a more evenly distributed tourism demand throughout the year.

At the same time, climate change and broader environmental shifts have put further pressure on the Travel and Tourism sector to advance sustainability and the societal agenda.

Following the above, rural areas in the European Union are currently undergoing significant economic and social changes. There is an increasing awareness of the need to accelerate improvements in rural areas through diversification of their economic base, which seems to be the only answer to socioeconomic survival of these communities. This can be achieved through the creation of synergies between tourism and related sectors such as agriculture, manufacturing and culture. Diversification of the tourism product by developing special tourism products such as Slow / Rural tourism and attracting specific markets segments such as health tourism, have the potential to encourage entrepreneurship, generate local employment and stimulate external investment into the communities, also contributing to territorial cohesion.

The above and other main challenges are summarised below:

- Structural constraints/Territorial divergence between urban and rural areas.
- Need for diversification and enrichment of the tourism offering
- Need to reduce seasonality
- Lack of business opportunity awareness.
- Proposed investments should be accompanied by further governmental investment in infrastructures.
- Lack of linkages between micro, small and medium enterprises.
- Citizens' concerns about environmental impact of investments.

Objectives

Sub-component 3.1.3, aims at enhancing the sustainability and value added of the tourism sector and includes investments linked to the implementation of a new tourism strategy for sustainable development, greening of tourism and development of the tourism sector in the mountains, remote and inland areas. In line with the National Tourism Strategy of Cyprus, it aspires to minimise the environmental impact of tourist development while giving incentives for the introduction and promotion of new forms of tourism (e.g. nature tourism, agrotourism, slow tourism and culinary tourism), building on the Cypriot tradition.

The proposed investments aim at enhancing the sustainability of the tourism sector, addressing at the same time the low competitiveness of Cyprus compared to nearby destinations, its dependency on specific markets, the need to enhance its contribution to territorial cohesion, the need to ameliorate seasonality, the absence of a strategic advantage for Cyprus and the low recognition of Cyprus's tourist brand.

The proposed investments target local family micro-businesses and small and medium sized businesses by providing liquidity, sectoral workers who will work on the projects and the general population as explained in rural areas.

Even though there aren't Country Specific Recommendations (CSRs) on Cyprus directly relating to tourism, the recitals of CSR of 2020 refer to tourism, stating that 'the socio-economic consequences of the pandemic are likely to be unevenly distributed across the country due to different specialisation patterns, in particular in areas markedly relying on tourism and more generally on face-to-face business to consumers. This entails a risk of widening territorial disparities within Cyprus. Combined with the risk of a temporary unravelling of the convergence process between Member States, the current situation calls for targeted policy responses.

Considering the above, the investments in this sub-component will aid the following:

- Economic diversification of Cyprus's tourism sector.
- Employment creation, as primary or secondary source of income, especially in the mountains, remote and inland areas.
- Reduction of out-migration and stimulation of re-population.
- Improvement of both natural and built environments in rural areas.
- Reduction of seasonality in tourism/increase of visitation to the mountains, remote and inland areas.
- **Investment 8: Enhancing the added value of the tourism sector with emphasis on the countryside, mountainous and remote areas**
 - *Financing for the renovation of accommodation establishments / hotels in countryside, mountainous and remote areas to modernise and increase the competitiveness of the tourism product*
 - *Renovation of traditional restaurants or businesses selling traditional products, subject to their inclusion in the Label "Taste of Cyprus"*
 - *Repurposing of accommodation establishments/hotels to include medical and assisted living facilities in order to attract Health, Wellness and Medical Tourism*
 - *Financing for the renovation of accommodation establishments / hotels in countryside, mountainous and remote areas to modernise and increase the competitiveness of the tourism product*

- *Financing for the renovation of accommodation establishments / hotels in countryside, mountainous and remote areas to modernise and increase the competitiveness of the tourism product*

Challenges

Cyprus has traditionally been regarded as a Sun & Sea tourist destination. This can be seen from the limited overnight stays in the Hill & Mountain hotels and tourist establishments, which gathered only 1,25% of the non-residents guest-nights in Cyprus, in 2019. Beds capacity in Hill & Mountain hotels and tourist establishments represent only 2.5% of the total Beds Capacity of the island. These numbers have been consistently low, especially if one considers 2019 as the Cyprus tourism record year, when Cyprus welcomed close to 4M tourists. The limited performance of the inland, mountainous and remote regions of Cyprus, has led to a vicious cycle of falling competitiveness, few tourist overnight stays, low average length of stay and limited tourist expenditure leading to reduced corporate profitability, which in turn has led to fewer investment projects, such as renovation works or new innovative enterprises. This results in an ageing tourism infrastructure, which deteriorates the local image and tourism experience, feeding the cycle of poor performance.

Consequently, Cyprus's remote, mountainous and countryside areas are much less developed than the coastal areas of the island. The renovation of accommodation establishments in the region, in line with the diversification of the tourism offer, the Green and Digital transitions, will aid improve the competitiveness of the local tourism industry, and boost the economic development of the population of these areas and therefore, the economic and social cohesion of the island. Furthermore, efforts to transform the tourist product from Sun and Sea to a new model of reducing mass tourism while aiming at a more balanced territorial and seasonal spread of tourists on the island, while targeting new markets/quality tourists, searching to experience slow tourism and real, authentic experiences, will lead to a fairer spread of the benefits of tourism.

Objectives

This investment aims to provide targeted support to accommodation SMEs i.e. Hotels and other tourism establishments, in the countryside, mountainous and remote areas for renovation projects to increase competitiveness, enrich the tourism offer to attract new markets/quality tourists, while reducing seasonality in tourism and improving of the built environment.

Implementation

The Deputy Ministry of Tourism (DMT) will be responsible for the implementation of the investment through the setup of a grant scheme. The grant scheme will be designed based on previous experience with similar renovation schemes. The DMT will also run other complementary support actions, through national funds, such as advertising campaigns and the promotion of inland thematic routes, and training courses to the local tourism workforce.

It is noted that energy efficiency expenditure will not be eligible under this scheme, so as not to overlap with the dedicated Scheme which will be implemented by MECl and will be tagged as contributing to the National targets set for Energy and Climate 2030. It is worth mentioning that many eligible participants (licensed hotels and tourism establishments categorised as traditional or listed buildings) are not allowed by law to perform significant energy efficiency works such as renewable energy investments, since such investments would alter the traditional / historic architecture of the building.

No similar Scheme will be implemented under the ERDF 2021-2027 Programming Period. The Scheme runs complementarily with the LEADER Programme; whereas LEADER encourages the creation of new agrotourism establishments, DMT will support existing ones upgrade their services. LEADER is also implemented through Local Action Groups (LAGs) which do not cover the totality of the countryside, mountainous and remote areas. The Deputy Ministry of Tourism

and Department of Agriculture have set an interministerial Working Group to coordinate and ensure there are no overlaps between the Schemes.

The design of the support scheme ensures that the financed investments respect the 'do no significant harm' principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call(s) for tenders of the scheme.

State Aid

The above investment will be implemented under the De Minimis Regulation.

Target population

Small and medium sized enterprises in the accommodation industry, i.e. Hotels and other Tourism Establishments. Geographical targeting: countryside, mountainous and remote areas in Cyprus.

- ***Renovation of traditional restaurants or businesses selling traditional products, subject to their inclusion in the Label "Taste of Cyprus"***

Challenges

Despite the potential of Cyprus's traditional cuisine and products, there is an absence of distinct character in restaurants offering traditional dishes and small businesses selling traditional products. Food has always been a pillar of the hospitality industry, accounting for 1/3 of tourist economic spending according to the UNWTO. Yet food holds more than just its commercial value. As an activity, eating is increasingly recognised as a vital part of the experiential tourism economy. Gastronomic tourism has thus emerged as a significant component of consumers' lived experiences, regardless of country of origin, shaping decision-making processes, dining choices, and even holiday destinations as a whole. Gastronomic tourism is increasingly integrated into local systems (links to agricultural and manufacturing sectors), sustainability and regional development. As tourists increasingly search for authenticity and sensory experiences, it is of outmost importance to adjust the food establishments and businesses selling traditional products to reflect the changing needs and demands, in line with the latest trends.

Objectives

This investment aims to provide support to SMEs, mostly food establishments, and more specifically taverns, but also micro, small and medium enterprises selling traditional products, in order to promote the upgrade of Cypriot hospitality and enhance the development of Cypriot gastronomy. Inclusion of these businesses under the Quality Label "Taste of Cyprus" rewards the compliance of enterprises to specific and commonly accepted quality criteria, but also pushes SMEs to use local suppliers and raw materials produced in the local community. Indeed, "Taste of Cyprus" was created through another co-financed project, which aimed at diversifying the tourism product by promoting gastronomic tourism.

Implementation

The DMT will be responsible for the implementation of the investment through the setup of a grant scheme. The grant scheme will be designed based on similar renovation schemes to the food establishments. All European and National State Aid regulations will be respected. The DMT will also run other complementary support actions, through its own funds, such as advertising campaigns and the promotion of the Quality Label "Taste of Cyprus", and training courses to the local workforce in the food industry.

The design of the support scheme ensures that the financed investments respect the 'do no significant harm' principle, as explained in detail in the separate DNSH assessment of this

measure. This consideration will be explicitly included in the relevant call(s) for tenders of the scheme.

State Aid

The above investment will be implemented under the De Minimis Regulation.

Target population

Micro and SMEs, young entrepreneurs. Targeting for catering and entertainment establishments is by licence type, i.e. restaurants and taverns, thus no geographical targeting (nationwide scope)

- ***Repurposing of accommodation establishments/hotels to include medical and assisted living facilities in order to attract health, wellness and medical tourism***

Challenges

To diversify the Cyprus tourism product, and to attract high-spenders, Cyprus should invest in attracting international visitors willing to travel for health services. To attract medical, health and wellness tourism, increasing international accreditation of hospitals, clinics and laboratories will be of outmost importance, as it will signal that the authorities are adhering by internationally recognised standards. However, in addition to this, as a complementary action, it will be important to adequately prepare the tourism accommodation industry to welcome such visitors, who have specific needs and demands.

Objectives

Targeted support to accommodation SMEs i.e. hotels and other tourism establishments to invest in offering specialised services to the medical, health and wellness tourism segments, by enriching their infrastructure and providing the relevant facilities and services. The investments will include renewable energy and energy efficiency measures, thus contributing to the green transition objectives but also more specifically to a greener tourism accommodation infrastructure. It is premature to make estimates regarding the share of spending that will be related to energy efficiency, as this is closely related to the current building infrastructure of each hotel / tourism establishment applying for grant. Additionally, the share of works implemented is not always directly related to share of investment. A hotel may have extensive infrastructure work, closely related to energy efficiency, but also invest in high-tech assisted living equipment, which would be a large investment, thus affecting the ratio of energy efficiency spending.

Implementation

The DMT will be responsible for the implementation of the investment through the setup of a grant scheme. All European and National State Aid regulations will be respected. The Deputy Ministry of Tourism will also run other complementary support actions, through its own funds, such as branding of Cyprus as a hub for medical services and health & wellness tourism, and relevant advertising campaigns. This will be implemented in close collaboration with the Ministry of Health, relevant private sector actors and specialised bodies in Cyprus and abroad.

State Aid

The above investment will be implemented under the De Minimis Regulation.

Target population

Small and medium sized enterprises in the accommodation industry, i.e. Hotels and other Tourism Establishments, with non-geographical targeting (nationwide scope).

Timeline

Q2 2023: At least 175 SMEs on a pan-cyprian scale, comprising food establishments, and more specifically taverns, but also micro, small and medium enterprises selling traditional products, invest in renovation or refurbishing, in order to promote the upgrade of Cypriot hospitality and enhance the development of Cypriot gastronomy, due to the financial support provided.

Q2 2026: At least 57 hotels and other tourism establishments, in countryside, mountainous and remote areas, invest in renovation or refurbishing to increase competitiveness, enrich the tourism offer to attract new markets / quality tourists.

- **Investment 9: Promotion of circular economy in hotel establishments**

Challenges

Circularity constitutes a key mean of reducing greenhouse gas (GHG) emissions and relieving the economy of carbon emissions. The circular economy is crucial in combating global warming and is an important chapter in the European Green Deal and in the EU Circular Economy Action Plan. The outbreak of COVID-19 disease pointed out how vulnerable companies are and their huge dependence on raw materials imports, especially in Cyprus where the local economy relies significantly on imports. By transitioning to a circular economy, economic growth is achieved by decoupling economic development from the use of resources, through the production and consumption of durable, reusable and repairable products and services.

The COVID-19 pandemic, in addition to the significant health and socio-economic consequences, had another effect, accelerating the processes of transformation of the economy, labour and society in general, at the global and national levels. The new beginning creates opportunities for radical changes in the various sectors, which will shape the new productive and growth economic model. A model that will be based more on the circular economy and not on the linear one, in a completely digital and green environment.

Since tourism is directly dependent on climate change and on the natural environment for energy and water consumption, there is growing demand for waste management. Indicatively, the global carbon footprint of tourism is estimated to account for about 5 to 8% of global greenhouse gas emissions (World Economic Forum 2009; Lenzen, et al. 2018). In addition, for many decades until 2020, tourism was one of the fastest growing sectors in Europe, further contributing to energy use and greenhouse gas emissions. Hotel companies are responsible for 12.5% of all tourism emissions (International Tourism Partnership [ITP] 2020). This is mainly due to the intensive energy consumption of hotels, the use of non-renewable resources in their daily work for electricity, the growing need for air conditioning and cooling due to rising temperatures, the F-gases and the incessant production of large volumes of waste.

Objectives

The actions of the proposed investment aim to enhance the competitiveness of hotel establishments by reformation towards sustainability by providing structured capacity building, training, diagnostics and guidance to facilitate the transition of their (Hotels') business models to circular, or to develop their existing circular products or services, with an emphasis on maintaining and minimizing of resource consumption and GHG emissions; and moreover to prepare their transition for certification with the pr-ISO59020 on circular economy, or other national standard that will be developed for this investment.

Implementation

The Investment will be implemented by the Cyprus Employers and Industrial Federation (OEB). Over the last 4 years OEB has started pioneer initiatives aiming at reducing GHG emissions in enterprises and application of circular economy transition e.g. [Business4Climate](#), [Hotels4Climate](#)

and the establishment of the Cyprus Circular Economy Network. OEB will leverage its experience to lead this investment for the targeted hotel establishments.

This action will be implemented by providing a clear business journey of business change towards circular hotels in Cyprus. The implementation of the investment will be based on the following methodology:

1. Provision of training and business coaching to hotels to support the transition to a circular business model/operation through a business diagnostic assessment. The business diagnostic will be tailored to the specific needs of each business and it will:

- first assess the current circularity status of each participating hotel,
- identify the priority areas for the business regarding their key value chains, e.g., plastics, food waste, textiles, etc. and the relevant opportunities for the implementation of circular measures of small and / or large scope/impact,
- identify the existing and future barriers for the adoption of a circular business model and the transition to circular economy
- a clear action plan of what actions each hotel will need to take, as well as what business support via business coaching it requires, that will enable/accelerate its transition.

Conducting the business diagnostic as a first step, enables OEB to identify each business's strengths and weaknesses, analyse the existing business model, cost and revenue structures, as well as the available resources. This will give a clear view of each business's capabilities, as every business will need a lot of time of business mentoring and coaching and invest time, efforts and capital, with the necessary condition of the business commitment in order to achieve a successful transition and adopt a circular business model.

2. Following the execution of the action plan, each hotel will be evaluated for its performance by the new circular economy conformity assessment/Certification Scheme that will be developed in cooperation with certification bodies and the Cyprus Organisation for Standardisation (CYS). If the hotel has successfully achieved the transition, it will be certified with a circular business certification.

3. Training /Coaching / Mentoring for hotels through workshops, trainings and site visits (1:1 and 1:many group and individual - mentoring & coaching) with the aim of:

- developing a strong understanding of the circular economy and
- how to identify and use its opportunities for the benefits, gaining a competitive advantage, and make the transition.

4. Certification of hotels, by an external body, that will achieve performance that will comply with the requirements of the conformity assessment of the circular project, product and / or service.

5. Development of the Cyprus Network of circular economy for the exchange of best practices, the transfer of knowledge, the promotion of networking and enable the development of a market (B2B) sharing platform.

The objectives of these actions are in line with European and national strategies, e.g. the new EU action plan for the circular economy, the forthcoming circular economy action plan of Cyprus, the waste strategy of Cyprus, etc. The Hotels will have the opportunity to apply for investment funding to the National Circular Economy Support Scheme.

Implementation

<p>A. Publication of the call for expression of interest and the open 3-day Circular Economy workshop</p>	<ul style="list-style-type: none"> • Develop the text of the application form and the selection criteria, the legal text of the collaboration agreement and the text of call of expression of interest. • Publication for a call for expression of interest that will reach the interested hotels. This will be published online, on electronic media, the pancyprian newspapers, the professional associations and the Deputy Ministry of Tourism. • Receive signed applications & evaluation of received applications. • Evaluation records. Approved applicants to sign the collaboration agreements. The applications approved will be meet the selection criteria with the highest score. signed collaboration agreement
<p>B. Deliver the 3-day Circular Economy Workshop to 50 hotels</p>	<p>The purpose of the basic training and capacity building workshop is to provide the necessary knowledge about the basic principles of the circular economy linked with Sustainable Development Goals 2030, the existing legislation as well as the new legislative developments, the need to move from the linear to the circular economy, and the benefits from the implementation of the circular economy, the efficient utilisation of resources, increasing the efficiency of the use of resources, introduction to the principles of circular design and circular production of products and services, logistics / reverse logistics, application of circular principles in procurement, and management of the transition to a circular economy.</p>
<p>C. Development of coaching tools and other materials</p>	<ul style="list-style-type: none"> • Design and develop the necessary business Materials, Methods and tools, • Deliver capacity building and business coaching, training assignments, role-playing and role-play games and exercises, accredited training and learning outcomes
<p>D. Delivery of coaching and capacity building to officers of the Deputy Ministry of Tourism</p>	<p>Please see info in B.</p>
<p>E. Development of circular economy certification scheme for hotels</p>	<p>The circular economy certification scheme will be based on the new ISO 59020 (TC 323/circular economy) for measuring</p>

	<p>circularity - a national certification scheme or conformity assessment will be developed.</p>
<p>F. Coaching & Diagnostics assessment to determine the current state of circularity of hotels</p>	<p>Diagnostics to:</p> <ol style="list-style-type: none"> 1) determine the current state of the business circularity and the potential opportunities and barriers to the transition of hotels to a circular economy, 2) define the actions needed to be implemented at the level of products / services / suppliers / business model / business processes for their transition to a circular economy, tailored to the needs of each business in order to be certified according to the circular economy certification scheme.
<p>G. Delivery of promotion, dissemination, events, awareness</p>	<ul style="list-style-type: none"> • Delivery of Annual Events, where hotels and the professional associations are invited - this will also enable networking. The details of the call of expression of interest will be presented, as well as the expected benefits. • Deliver dissemination of the project, which will include the creation of promotional materials, videos, printed publications, project website, etc.
<p>H. Monitoring of the implementation of actions included in the diagnostic assessment</p>	<p>OEB will visit hotels and discuss and assess the progress. Site visits will enable OEB to further guide the hotels to a successful transition.</p>
<p>I. Certification audit</p>	<p>External audit bodies (CYCERT/CYS) will conduct audit for circular hotels certification</p>
<p>K. Development of a B2B (Business to Business) Sharing Platform for hotels</p>	<p>A B2B Sharing Platform (Online Marketplace), on which hotels will have access. This platform will enable hotels to upload unused/unwanted resources, e.g. furniture, electric and electronic equipment on the platform, where other hotels and local businesses can view and select for purchase/exchange/share.</p>

The circularity journey has been designed in such a way to ensure the transition of the hotel establishments to circular hotels. This will be done through the training, targeted coaching and mentoring (tailored made for each hotel after the initial assessment), diagnostics and monitoring the implementation of diagnostic recommendations. Through the diagnostics the project will offer to hotels the identification of gaps, barriers, skills, and opportunities. Also, will include the priority sectors a hotel establishment will focus on (e.g. food, textiles, plastics etc). The most important thing is that the transition to circular journey (services, products etc) will end with

certification of hotels that will be audited successfully to comply with specific certification scheme.

The design of the support scheme ensures that the financed investments respect the 'do no significant harm' principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call(s) for tenders of the scheme.

State Aid

The above investment will be implemented under Article 18 of the General Block Exemption Regulation (GBER)

Target population

Hotel establishments (Housekeeping, Logistics, Chief Engineers, Human Resources, Administration etc.) and their suppliers and other stakeholders.

Timeline

Q2 2022: Evaluation of received applications for tailored business coaching for circular economy based on selection criteria and signing of collaboration agreements with at least 50 hotels.

Q1 2026: At least 18 hotels certified according to national standards as circular hotels following audit.

- **Investment 10: Enrichment of the tourism product in rural, mountainous and remote areas**
 - Revival of countryside, mountainous and remote areas through the creation of authentic experiences to enrich the tourism product and visual / aesthetic upgrade of infrastructures that have tourist aspects
 - Thematic Route Aphrodite - Inia
 - **Revival of countryside, mountainous and remote areas through the creation of authentic experiences to enrich the tourism product and visual / aesthetic upgrade of infrastructures that have tourist aspects**

Challenges

The DMT is implementing the creation of a large "Authentic Experience Route" of 300 kilometres, which will pass through the most important mountain, rural and remote parts of the country. This route will be promoted as the "Signature Brand Experience" of the country, since it will include points of interest, villages, traditional food, authentic experiences, agrotourism, traditional hospitality, etc. Nevertheless, the absence of economic opportunities in Cyprus' inland and rural areas leads population to settle in major cities of the island for employment opportunities. Various measures have been put in place to counter the population drainage and the resulting steady deterioration of the built environment, such as housing schemes for permanent residence in rural areas and renovation works in public squares and building facades, leading to an improved visual/aesthetic upgrade of buildings. However, entrepreneurship remains low in mountain, rural and remote parts of the country, with still limited activities offered to visitors and local population. This in turn, affects the attractiveness of the local destinations. The creation of innovative and creative SMEs thus remains a challenge. There is therefore a need to invest in these areas, in order to attract tourists and contribute to addressing the issue of territorial cohesion and enhance the economic opportunities for the local population.

Objectives

This investment aims to provide targeted support to:

(a) local community boards for limited-scale restoration of public traditional buildings and mostly repurposing them in order to host micro and small businesses in the creative and manufacturing sectors, such as artists, handcrafts, traditional products, etc. and

(b) entrepreneurs active in the creative and manufacturing sectors to render their business adequate for live workshops open to visitors.

These would boost the local economy and simultaneously provide activities to visitors, such as workshops, live demonstrations, traditional souvenirs, etc. This would enhance the diversification of the tourism sector, employment creation (as primary or secondary source of income), reduce out-migration and stimulate re-population, more balanced spread of tourists on the island, new markets.

Implementation

The DMT will be responsible for the implementation of the investment through the setup of a grant scheme. The grant scheme will be designed based on previous experience with similar schemes such as Nicosia's Creative Business Quarter, the DMT Scheme from National Funds for handicrafts and gastronomy workshops at mountainous, remote and rural areas, and the Cyprus Council of Ministers decision for the Implementation of local projects with a tourist aspect. The grant scheme will complement the creation of the "Authentic Experience Route" project currently implemented by the DMT through the Structural and Investment Funds for the Programming Period 2014-2020. The Ministry will also run other complementary support actions, through its own funds, such as advertising campaigns and the promotion of the existing and newly created "Authentic Experiences" on a digital platform (like the Airbnb Experiences). No similar Scheme will be implemented under the ERDF 2021-2027 Programming Period nor under LEADER Programme.

The design of the support scheme ensures that the financed investments respect the 'do no significant harm' principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call(s) for tenders of the scheme.

State Aid

The above investment will be implemented under the De Minimis Regulation.

Target population

Community Boards, Micro and Small sized enterprises, local population, foreign investors, young entrepreneurs. Geographical targeting: countryside, mountainous and remote areas in Cyprus.

➤ **Thematic Route Aphrodite - Inia**

Challenges

The project will contribute to environmental consciousness/ awareness to locals and visitors. The village of Inia is situated in Akamas area and is adjacent to Akamas National Park. Different points of interest related to mythology, history, religion, geology etc. will be connected and promoted through the proposed route. Large rock formation in the area is already a point of attraction to climbers.

Objectives

The main objective is to promote environmental aspects, biodiversity, and to attract tourism with special interests. The proposed project will enhance the tourist product of Paphos District and Cyprus in general. Also, the project will contribute to job creation in the area. The project will connect historical, religious and environmental points of the area with a special route (such as nature trails, etc.).

The route will be 2 km long and the project involves both a road and traditional sidewalk (stone-paving). At a point of the route where a river is met, a bridge is needed to be constructed. At the starting point of the route a building will be erected to be used as an information and small exhibition centre, and at the end of the route another building will be constructed to be used as a viewpoint to the Lara-Akamas area. The project also includes the maintenance of small churches/chapels that are under the protection of the Antiquities Department (ancient monuments). Besides, two old/traditional fountains in the area of the project will be maintained, and also a parking place will be created.

Implementation

The investment will be implemented by the Paphos District Administration Office, using Public Procurement procedures.

State Aid

Not applicable as the Investment does not constitute economic activity.

Target population

It will serve not only tourists from abroad, visiting the area but also Cypriots visiting Paphos and most specifically the Akamas area.

Timeline for whole investment

All the proposed investments relate to the National Reform Programme indirectly as they will bridge the unbalanced development occurring between coastal and inland areas of the island while promoting slow tourism which has a positive impact on the environment. Also, they will contribute to the creation of new forms of employment in less developed areas of the island. All of them are considered a vital part of Cyprus's National Tourism Strategy 2030.

There will be a broad stakeholder's consultation for each investment scheme, and best practices will be exchanged.

Q4 2024: Completion of the Aphrodite Route, which will connect historical, religious and environmental points of the area (such as nature trails, etc.) with a special 2 km long route, aiming to enhance environmental awareness and promote biodiversity.

Q4 2025: At least 105 enterprises renovate, or refurbish or visually or aesthetically upgrade public traditional buildings / infrastructures in countryside, mountainous and remote areas by restoring and repurposing them in order to host micro and small businesses in the creative and manufacturing sectors, such as artists, handcrafts, traditional products, due to the financial support provided.

Sub-Component 3.1.4 Circular economy:

Cyprus recognises the importance of a circular economy which aims to redefine growth, focusing on environmental benefits, as well as the importance and need for the establishment of an effective waste management system in Cyprus.

The Ministry of Energy, Commerce and Industry proceeded with the preparation of a Strategy Paper regarding the enhancement of the circular economy in the country. The Strategy Paper includes a mapping of the current situation, the challenges and opportunities arising from the exploitation of the circular economy by Cypriot companies as well as a National Action Plan towards this direction.

The National Action Plan includes series of actions aiming at the creation of culture, the provision of incentives to the entrepreneurial community to invest in circular economy, the set-up of the infrastructure and the legal framework for the enhancement of circular economy in Cyprus. The

Action plan is an umbrella for all the actions implemented by the Government, irrespective of the implementation body, aiming at circularity, thus including actions referring to the promotion of circular economy in the industrial sector mainly implemented by the Ministry of Energy, Commerce and Industry, actions aiming to waste management implemented by the Ministry of Interior, the Department of Environment and the Water Development Department as well as actions referring to circular economy among the Hotels in Cyprus implemented by the Cyprus Employers and Industrialists Federation (OEB). A number of the actions will be funded by the RRF, some by the European Structural and Investment Funds and some others by national funds.

Main challenges

This new economic model needs to be more flexible and less dependent on long supply chains - a key aspect of circular economy model. Thus, a major challenge is also the transition of the economy to a circular economy model which like any systemic transition, requires simultaneously reforms, implementation and cooperation at a national and industrial level. Enabling the activation of a circular chain of drastic changes, the development and promotion of national strategies and the compliance with the Cyprus set-out targets and obligations.

The promotion and application of the circular economy in industry and business, in order to create opportunities for redefining and transforming the productive sectors of the economy from linear "take-make-reject" model to circular "make-use-repair-reconstruct - recycle-reuse" model while at the same time enhancing their sustainability, productivity, employability and competitiveness and reducing their environmental footprint.

Also, there is a need for the creation of environmental behaviour and circular culture among citizens, and the raising of awareness of sustainable development in order to resolve the problem of illegal and uncontrolled disposal of waste.

Objectives

The main objective of this component is to help move towards circular economy. Making better use of raw materials, reducing waste and switching to renewable energy is crucial in order to mitigate the climate crisis, protect social wellbeing and build a resilient economy.

• Reform 4: Enhancement of circular economy in Industry

As already mentioned, the Government set up an Action Plan for the enhancement of the circular economy at national level. At the same time the Ministry of Energy, Commerce and Industry, as responsible Ministry of the Industrial Sector and within the Framework of the implementation of the Industrial Strategy 2019-2030 is proceeding with the implementation of actions aiming to the adoption of circular economy to the industrial Sector. The actions include the following:

- (a) Promotional Campaign: The aim is to raise awareness among the consumers regarding the benefits of circular products towards the environment, about the strengths and business opportunities circular economy offers, dissemination of information about best practices and information related to measures that are implemented.
- (b) Operation of a Grant Scheme to enhance entrepreneurial investment in circular economy: The scheme will support the enterprises transitioning to a circular operation model. The Grant will cover equipment cost as well as software and knowhow necessary for circular operation.

The design of the grant scheme will ensure that the financed investment respects the 'do no significant harm' principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call for tenders of the Scheme.

1. Advisory services on circular economy: The scheme will provide consulting services regarding the business diagnostics, business coaching, training of the employees and preparation of a roadmap for transitioning to circularity.
2. Sharing Marketplace platform for circular economy: The Ministry will set up a sharing marketplace platform aiming to connect supply and demand of materials, scrub or waste in a professional manner, in order to reduce waste.

Challenges

The main challenges that need to be addressed through this reform are the following:

- the low performance of Cyprus in relation to the EU average in terms of resource utilisation,
- the high energy costs that limit the competitiveness of Cypriot companies,
- the problem of excessive pumping of groundwater,
- the high cost of water uses and treatment for industrial uses,
- the limited infrastructure for industrial wastewater and wastewater treatment,
- the high costs and challenges in collecting recyclable materials,
- the challenges arising from the declassification of waste,
- the high cost of importing raw materials, since Cyprus is a remote island from the rest of EU,
- insufficient infrastructure for waste management within industrial areas,
- the lack of knowledge / culture as far as concerning industries on issues of circular economy and the effects that will have on them in terms of operation and sustainability,
- the legal framework and other incentives to promote business opportunities for Research & Development and Innovation by industry
- the small size of the market and the need to create partnerships-synergies and common infrastructures, in order to enable a sustainable economy of scale, especially in the issues of waste utilisation and implementation of sustainable circular economy actions.

Objectives

The main objective is to enhance the circular economy model in the country through the implementation of a concrete Action Plan. The Action Plan includes actions that focus, inter alia, on creating a culture both among citizens (sustainable consumption) and among the manufacturers / entrepreneurs themselves, effective incentives for industry to invest in the circular economy and creation of the necessary infrastructure.

The Action Plan consists of fourteen measures for Project Promoters (Pillar for change 1), which act as incentives to the industry to invest in the circular economy, including the creation of inter alia:

- (a) a circular culture,
- (b) demand for circular products,
- (c) the necessary infrastructure for sustainable production of new or improved products,
- (d) the infrastructure for the utilisation of by-products, co-products and end-of-life products,

- (e) the infrastructure to increase the efficiency of available resources and
- (f) a certification infrastructure.

The Action Plan then addresses specific priorities such as the promotion of synergies in achieving economies of scale, creating favourable market conditions to boost circular products, boosting new economic activities, restructuring existing modes of operations and regulatory reform requirements. The Action plan also proposes specific legislative and political reforms towards policymakers (Pillar for change 2) and the adoption of circular culture in the financial sector (Pillar for change 3). Both pillars are also of great importance and necessary when transitioning to a Circular Economy.

Implementation

The Ministry of Energy, Commerce and Industry will be responsible for implementation.

Target population

- Manufacturers / entrepreneurs who are willing to invest in the circular economy. Also, Entrepreneurs that could take advantage of opportunities arising from the circular economy.
- 5 priority industrial sectors were identified in the Smart Specialisation Strategy and the New Industrial Policy, based on their contribution to the GDP of the Cypriot Economy, the number of jobs, as well as their recognition as key priority areas. These sectors are:
 - Food and Drinks
 - HoReCa (Hotels/Restaurants/Catering)
 - Construction
 - Primary Sector
- Other Industrial Infrastructure aiming to add all the industries necessary to close the cycle

State Aid

GBER Regulation will be applied, Article 47.

Timeline

Q4 2021: Approval of the National Action Plan for the Enhancement of Circular Economy in Cyprus by the Council of Ministers.

Q2 2026: Aid granted to at least 40 eligible SMEs. The Scheme covers costs for the design, investment and certification for adopting circular operating practices and models.

• **Reform 5: Establishment of a Coordinating Body between central and local government**

Cyprus needs to upscale its efforts to reach the goals set in the Waste Framework Directive but also to establish the enabling factors to reach the goals set for 2035 of 65% recycling of municipal waste and the 10% of treated waste reaching the landfills. The Environment Implementation Review 2019 (European Commission, Environmental Implementation Review 2019 Cyprus) considers waste management as one of the main challenges that Cyprus has to face. The lack of coordination between different administrative levels and insufficient law enforcement at the local level were identified as main issues that need to be tackled.

Taking into consideration the need of the local government to step up its efforts to change the way municipal waste is currently managed, institutional changes which will facilitate the shift to actions towards higher levels in the waste management pyramid is imperative. Therefore, the

establishment of an organisation for the aforementioned purposes needs to be studied thoroughly so as to be defined in a legally clear and financially effective manner.

Challenges

The Municipal Waste Management Plan of Cyprus in accordance with Article 28 of Directive 2008/98/EC (corresponding to article 35 of L.185(I)/2011) and the National Waste Prevention Strategy approved and published in 2015, both have a 6-year horizon (2015-2021) setting goals and targets for waste management and prevention respectively. The Competent Authority for waste management is the Department of Environment of the Ministry of Agriculture, Rural Development and Environment (MARDE). The Municipal Waste Management Plan beyond 2021 is currently being prepared and expected to be completed by the first half of 2021.

Total waste generation of municipal waste throughout the years has been high, reaching 566 thsnd tonnes in total in 2019 with a per capita production of 643 kg/year one of the highest in the European Union (Statistical Service, 2019). As shown in Table 1 below, in 2017 79,5% of the total quantities was disposed in sanitary landfills, 15,0% was sorted for recycling, 2,0% was composted, 3,2% was used for backfilling and 0,3% was incinerated for energy recovery purposes.

Indicator	Unit	2000	2005	2010	2015	2018	2019 P
Waste Generated	10 ³ tonnes	436,11	507,91	576,31	525,24	562,10	566,19
Per capita generation	10 ³ tonnes	629	688	696	623	645	643
Waste treatment	10 ³ tonnes	436,11	507,91	560,76	496,69	490,61	469,47
Disposal	10 ³ tonnes	423,00	489,30	497,86	409,99	392,86	379,39
Recycling	10 ³ tonnes	13,11	18,61	62,90	68,81	84,47	76,68
Energy recovery	10 ³ tonnes	0,00	0,00	0,00	0,00	3,98	5,32
Composting	10 ³ tonnes	0,00	0,00	0,00	17,89	9,30	8,08
Disposal	10 ³ tonnes	423,00	489,30	497,86	409,99	392,86	379,39

Figure 1: Chronological Production of Waste figures

As aforementioned the per capita municipal waste production in Cyprus is very high. In Cyprus, the per capita generation of municipal solid waste in 2019 reached 643 kg, which is the second highest among the member states of the EU. Taking into account the brief description of the situation today and at the same time the targets set at EU level such as the Circular Economy Package, the Landfill Directive, and the Plastics Directive, it is evident that Cyprus has significant challenges ahead which need to be tackled in an effective, comprehensive and accelerated mode.

Local authorities are expected to step up their efforts in order to engage effectively in the timely achievement of the targets. It has been identified through the EIR and Early Warning Reports that increased coordination of local authorities with central government as well as technical and financial support of local authorities is imperative.

It is considered that the implementation of changes in governance is necessary. The establishment of an administrative structure that will effectively support both financially and technically local government is currently being proposed.

Objectives

The establishment of this organisation has the following main goals:

- Provide a mechanism which will upscale waste management towards prevention and separate collection, thus contributing to compliance with the EU waste management directives as well as promoting the circular economy.
- Provide a mechanism which will be flexible and at the same time efficient in supporting technically local authorities for the implementation of waste management obligations.
- Liaising central government with local authorities by facilitating implementation of waste management policy in both a top-down approach and vice versa.
- Create expertise in the field of waste management and in consequence support local authorities in an effective manner.
- Exploit and use funding opportunities and collaboration in the field of waste management.

Implementation

The Department of Environment and the Ministry of Finance will work closely together to prepare the grounds for a smooth governance transition. A thorough study from experts will be necessary to assess the current situation, conduct consultations with involved stakeholders, study and assess best practice examples from other countries and EU Member States to define an effective and legally clear structure. Funds will be necessary for a tender of external services to conduct the study.

After the definition of such a structure the necessary legislation for its establishment must be put in place through a second tender of services.

Upon its approval the necessary infrastructure, equipment and staff hiring will need to be set in place.

All actions will be coordinated by the Department of Environment.

The achievement of the reform's implementation will take place via the following steps:

It should be mentioned that a study is necessary to define the type and the actual size of the organisation. However, the following can be roughly estimated at this stage (the actions will be funded from other funds):

- Step 1: Study to define the type and modus operandi of the organisation Go through the procedure of public tender from other funds.
- Step 2: Preparation of specific legislation and approval Through public tender procedures.
- Step 3: Preparation of infrastructure and equipment Through public tender procedures.
- Step 4: Recruitment Through the recruitment regulations of the central government.

Risks associated with the establishment of such an organisation are the following:

1. The organisation will add to the bureaucratic burden of the government system. The organisation need not be part of the central government. Flexibility within the framework of its operation can be achieved by placing this organisation outside central government.
2. The structure of this organisation can promote non-transparency of set up too close to its donors. This can be avoided by defining clear and mutually agreed roles of all the actors involved in its operation.

Steps 1 and 2 will be carried out until the end of 2023. Adequate time is given for thorough consultation for the organisation structure and the subsequent relevant legislation, since the procedures for legislation consultation and approval are lengthy.

State Aid

Not applicable

Target population

This action will involve the Ministry of Finance and the Department of Environment as well as local authorities. Academic institutions, business and industrial associations are involved stakeholders contributing to defining this structure through constructive dialogue.

This establishment of such an organisation aims at the following:

- Promotion of activities within the waste management hierarchy and the waste management plan and support local authorities in this perspective.
- Participate in research programmes, support of pilot programmes, education and information campaigns that aim at waste prevention and separate collection of waste (including recovery where there are no other options).
- Maintain the database of programs and projects and similar activities in the field of waste management.

Timeline

Q2 2025: Enactment of Legislation through which the Coordinating Body between Central and Local Government will be established and begin operations. The Coordinating Body will provide a mechanism which will upscale waste management, contribute to compliance with EU waste management directives and promote circular economy.

- **Investment 11: Improvement and extension of the Cyprus Green Points Network and creation of a network of Collection Points and Recycling Corners**

The Ministry of Interior prepared in 2011 the National Strategic Plan for the Development of a National Green Points Network (NGPN) consisting of 67 Green Points (GPs). At the GPs, citizens and Local Authorities can deposit specific municipal/household waste streams, such as recyclable materials, fabrics, green waste, medicines, lamps, cleaning materials, electrical and electronic equipment waste, bulky waste (furniture, mattresses, carpets, rugs), etc.

Under the above Plan the Ministry of Interior, as the previous implementing authority, constructed 23 GPs (i.e. Nicosia District: Ergates, Kokkinotrimithia, Peristerona, Astromerites, Linou, Alampra, Strovolos, Malounta. Limassol District: Kolossi, Pareklisia, Avdimou, Fasoula. Larnaca - Ammochostos Districts: Anafotia (Aplanta), Aradippou, Dromolaksia, Pyrga, Kofinou, Athienou. Paphos District: Pegeia, Poli Crysochous, Agia Varvara, Koloni, Paphos (Moutallos). This was due to the fact that GPs were a new waste management tool, unfamiliar to sceptic Local Authorities, resulting in their objection to the construction of a GP within their administrative boundaries. Since the operation of the 23 GPs, Local Authorities' opinion shifted to the opposite direction and today are exercising significant pressure on the State to proceed immediately with the extension of the network. Since there is a positive momentum, the Water Development Department (WDD) of the Ministry of Agriculture, Rural Development and Environment, as the new implementing authority, is promoting the following investments to complete the NGPN, as it was initially designed and at the same time to strengthen it according to the experience gained so far from the operation of the existing GPs.

The project is related with the Waste Framework Directive 2008/98/EC for the appropriate waste management hierarchy (reduction, reuse, recycling, recovery, landfill).

Moreover, it is under the National Strategic Plan for the Development of a National Green Points Network and is related with the National Strategy for the Development of the Troodos Mountain Communities.

Investments sub-projects:

1. Solving operational problems of the existing NGPN [i.e. supplying the existing NGPN with extra mobile/fixed equipment (i.e. shredders, diggers, skip loaders and metal containers) and improving access roads conditions to existing/new Green Points (GPs) and new Collection Points].
2. Design/construction of new Green Points (GPs) for which an Environmental Impact Assessment (EIA) study was implemented and approved by the competent Environmental Authority (i.e. GPs of Avgorou, Troullous, Eptagonia and extension of the GP of Alampra).
3. Design/construction of new **Green Points** (GPs) for which there is no approved EIA study (e.g. GPs of Aglantzia, Latsia, Dherynia, Sotera, Pelentri, Engomi, Lakatamia, Pano Platres, Kalo Horio Limassol, Souni Zanatzia). It should be noted that the final location of the 10 new GPs depends on the outcomes of the various studies (e.g. environmental/techno-economic studies) that will be implemented.
4. Design/construction of a **Recycling Corners Network** (small GPs) to serve the rural communities in the Troodos area, as part of the implementation of the National Strategy for the Development of the Troodos Mountain Communities.
5. Design/construction of a **Collection Points Network** (small GPs) in remote rural communities not included in the National Strategy for the Development of the Troodos Mountain Communities.

Challenges

One of the challenges that need to be addressed is the mitigation/elimination of the uncontrolled and illegal dumping of waste, and mainly of recyclable materials and bulky waste, in public areas. According to the National Strategic Plan for the Development of a National Green Points Network (NGPN), the network should consist of 67 GPs. Currently, the network consists of only 23 GPs and therefore a large part of the population does not have access to a GP or other legal similar infrastructures, in order to dispose of specific household waste streams. As a result, the existing GPs receive much more quantities of waste and serve a larger population than originally planned. This leads to various operational problems and difficulties to meet the needs of the users, parameters that they will be eliminated by extending the network.

In the framework of the project, for specific GPs in rural areas will be examined to accept specific waste streams e.g. agricultural plant residues/old plastics/obsolete agricultural machinery, except the abovementioned accepted household wastes. This effort will be made in close collaboration with the Department of Environment, which is the relevant environmental Authority, and in accordance with their plans and strategies which are under development.

Additional challenges that need to be addressed is to provide appropriate infrastructures for the collection of some of the above-mentioned waste streams (e.g. recyclable materials, green waste, electrical and electronic equipment waste, bulky waste, etc.) in remote rural areas/communities. Taking into consideration the fact that the rural communities in the Troodos area and other remote rural areas, due to their small number of inhabitants and the special conditions that characterise them, which are completely different than those of the urban centres, it is necessary the GPs network to be enhanced with other more appropriate infrastructures that can adapt to their needs, like the Recycling Corners and the Collection Points (small GPs).

Objectives

The management of Solid Waste is a necessity and a priority for Cyprus, both to protect the environment and public health and to adopt the relevant Directives on the environmental policy of the European Union (EU) in this domain. The proposed investments are in line with the National Waste Prevention Program 2015-2021 and the Municipal Waste Management Plan. The main qualitative goal of the investments includes:

- Comply with the principles of sustainable development by eliminating the negative impacts of uncontrolled waste disposal.
- Comply with the requirements of the relevant Community and National legislation in relation to the management of solid waste.
- Contribution to the objectives of the Waste Framework Directive 2008/98/EC for the appropriate waste management hierarchy (reduction, reuse, recycling, recovery, landfill).
- Contribution to the objectives of the Waste Framework Directive 2008/98/EC on the protection of the environment (reduction of uncontrolled waste disposal, diversion of waste from landfill, massive reuse, recovery and recycling of objects and materials).
- Contribution to the objectives of the Landfill of Waste Council Directive 1999/31/EC for the reduction of greenhouse gas emissions (CO₂ and CH₄) by reducing waste landfill.
- Increase in the rate of recovery and recycling of materials in Cyprus.
- Reduce the biodegradable fraction disposed in landfills, through the diversion of pruning, gardening waste, etc.
- Reduction and gradual elimination of the abandonment, dumping and uncontrolled disposal of bulk waste.
- Reduction of hazardous waste (municipal) disposed of in landfills.
- Protection of public health and the environment.

Furthermore, the proposed investments are expected to have a significant positive social implication to the users of the infrastructures, such as developing new manners of environmental behaviour, formulating a new approach to what is and what is not waste, reducing disposal of useful objects and materials. Also, it will raise users' awareness of sustainable development and circular economy. Moreover, they are measures that will significantly improve the life quality of the local communities with the simultaneous application of the law in force for the management of municipal non-hazardous waste and will contribute significantly to the Integrated Management of Solid Waste in Cyprus.

With the completion of the Network (GPs - Collection Points - Recycling Corners) all citizens of the State will have access to appropriate infrastructures to dispose of their waste and is expected that this will resolve in a significant extent the problem of illegal and uncontrolled disposal of waste in public areas. With the operation of the above Network, the appropriate services and infrastructures will be established for the subsequent active participation of citizens and local authorities to sustainable waste management practices, and at the same time, the existing recycling programs will be reinforced.

Implementation

The implementation of the investment (study/design – supervision/construction) will be coordinated by the Water Development Department (WDD) in close collaboration with the Exploitation Councils of each District, the Local Authorities, the Troodos Development

Company and the Department of Environment (DoE) of the Ministry of Agriculture, Rural Development and Environment.

The WDD, and specifically the Solid Waste Management Department, will be responsible for preparing the tender documents for the study/design – supervision/construction of (a) the new GPs and (b) the Recycling Corners and the appropriate publication of them. The tender procedure will be carried out in accordance with the Public Procurement Best Practice Guide of the Treasury of the Republic of Cyprus and the relevant National Regulations that are aligned with the Community Directives for Public Procurement.

The responsibility for the contraction of the Collection Points Network, based on the public procurement procedures, will be under each Local Authority where the Collection Point will be constructed, under the supervision and guidance of the WDD and with close collaboration with the District Administration Offices.

The WDD will collaborate with the following partners:

- Troodos Development Company, which will assist the WDD during the implementation of the investments regarding the National Strategy for the Development of the Troodos Mountain Communities. Specifically, the Troodos Development Company will be responsible for preparing on behalf of WDD, the Tender Documents for the recruitment of the Consultant who will prepare the environmental/techno-economic studies and documents for the construction of the Recycling Corners network, as well as for supervising on behalf of the WDD of the construction works. A Memorandum of Understanding (MoU) has been signed between Troodos Development Company and WDD.
- Environmental Consultants companies, which will be responsible for preparing the Environmental Impact Assessment (EIA) and the techno-economic studies and the detailed designs of new GPs and Recycling Corners, as well as for supervising on behalf of the WDD of the construction works.
- Local Authorities (Municipalities and Community Councils), which will be responsible to suggest to the WDD areas where the GPs or/and Collection Points will be constructed, as well as their needs regarding stable and mobile equipment (i.e. skips, containers, waste bins, mobile GPs (trucks), etc.).
- Local Authorities and the District Administration Offices, which will be responsible to implement the construction works for the new Collection Points.
- District Administration Offices and Local Authorities, which will be responsible to implement the construction works for improving the access roads conditions to existing/new Green Points and new Collection Points.

GPs are familiar infrastructures for the Cypriots and information about their purpose and operation is available for the public on various websites (i.e. of local authorities, Exploitation Councils, Government, etc.). Informative campaigns have been already performed by the Exploitation Councils for their further promotion. In the framework of this project information campaigns about GPs, Collection Points and Recycling Corners Networks will take place. Also, a mobile application (mobile app) which will include all the necessary info for the above Networks (e.g. type of acceptable waste, location (maps), working hours, limitations, etc.) will be designed and be available for the citizens by the end of 2025.

The operation and maintenance of the existing GPs network is undertaken by the Exploitation Councils of each District. The new infrastructures (fixed and mobile) will be allocated to the relevant Exploitation Council and will be incorporated into the existing GPs' network. The related cost will be borne entirely by the Exploitation Councils.

Exploitation Councils are Public Law Bodies established by decree of the Councils of Ministers in accordance with the provisions of the Law 85(I)/2005 «Establishment of Councils for the exploitation of disposal landfills or municipal waste». Each Exploitation Council Board consists from 4 Mayors and/or members of the Municipality Councils and 4 Presidents and/or members of Community Councils Boards representing all Municipalities and Communities of the District, and a representative from the Ministry of the Interior.

State Aid

Green Points, Recycling Corners, and Collection Points Networks consist of infrastructures where various types of waste will be collected. After the collection of waste in the above infrastructures, each type of waste will be transported to specific licensed facilities/units for treatment and final disposal. Therefore, any compliance with State Aid Regulations is not required.

Target population

Stakeholders: environmental consultancy companies, construction and waste management companies and other local professionals/sectoral workers (in relation to the design/construction stage of the Network (GPs - Collection Points - Recycling Corners).

Target group: the users of the Network i.e. general population, local professionals/sectoral workers (e.g. gardeners, recyclers, resellers, etc.) and the Local Authorities.

Impediments

Taking into consideration the experience already gained from the design and construction of the existing Green Points Network in Cyprus, there is a possibility that some Local Authorities will not agree with the construction/implementation of the above infrastructures within their administrative boundaries. Also, infrastructures that may be proposed to be constructed near residential areas, it is possible to cause a negative reaction from organised groups.

Nevertheless, it should be noted that already a significant number of requests have been submitted by Local Authorities, proposing specific plots within their administrative boundaries, for the construction of Green Points/Collection Points/Recycling Corners. Also, efforts will be made to select firstly suitable state plots, which do not affect negatively other premises/houses, etc., in order to limit to a minimum any negative reactions from the locals. Thus, the Water Development Department, as the Contracting Authority, is expected to have at its disposal alternative options, in case that there will be a reaction either by a Local Authority or an organised group for a specific Green Point/Collection Point/Recycling Corner, which are expected to be individual cases.

Timeline

Q4 2023: Completion of construction, expansion and operation of four (4) Green Points at Avgorou, Troulloi, Eptagonia and Alambra in accordance to the National Strategic Plan for the Development of a National Green Point Network covering an area of 17.300m².

Q2 2026: Completion of construction, expansion and operation of fourteen (14) Green Points at Avgorou, Troulloi, Eptagonia, Alambra, Aglantzia, Latsia, Dherynia, Sotera, Pelentri, Engomi, Lakatamia, Pano Platres, Kalo Horio Limassol, Souni Zanatzia in accordance to the National Strategic Plan for the Development of a National Green Point Network covering an area of at least 50.500m².

- **Investment 12: Waste Management towards circular economy**
 - **Integrated bio waste source separation and central small and medium-size aerobic treatment systems and home composting**
 - **Construction and operation of Green kiosks for dry recyclables**

➤ **Construction and operation of Reuse and Repair Centres and networks**

This investment has three constituents with main goal to contribute effectively to upscaling efforts towards reuse and recycling. The part of the project for composting units and kiosks concerns the decentralisation of separate collection of waste for rural and semi -rural areas and the reuse centres concern the wider planning to promote reuse. It should be mentioned that this project is part of the wider strategy where the following projects and actions are planned for waste management:

Investments

1. Investment in diversion and recycling of biowaste:
 - 1.1. Investment through PAYT Project including separate collection of biowaste from households (ESIF)
 - 1.2. Investment in reinforcing treatment of biowaste (ESIF)
 - 1.3. Investment in awareness and home composting units for rural areas
 - 1.4. Investment in composting units and home composting units for semi-rural and rural areas.
2. Investment in increasing recycling of paper, plastic metal, wood (dry recyclables)
 - 2.1. Investment through PAYT Project including reinforcing recycling Project (ESIF)
 - 2.2. Establishment of Green kiosks (50 Green Kiosks)
3. Upscaling Reuse
 - 3.1. Establishment of 2 Reuse Centre and a network of collection shops
4. Investment in Separate Collection of municipal waste from households
 - 4.1. Investment for PAYT involving setting up infrastructure for separate collection from households. (ESIF)
 - 4.2. Investment in separate collection from coastal touristic establishments from Limassol and Paphos (ESIF)

Reforms

5. Establishment of a support and coordination Body for the Local Authorities

It should also be noted that there is a close cooperation with the Management Authority of CAP and it will be ensured that no double funding will occur for any projects concerning waste management.

➤ **Integrated bio waste source separation and central small and medium-size aerobic treatment systems and home composting**

According to the EU Waste Framework Directive 2008/98/EC, 'biowaste' includes green biodegradable garden and park waste, food and kitchen waste from households, restaurants, caterers and retail premises and comparable waste from food processing plants. Biowaste comprises the largest single municipal waste fraction ranging from 30 to 50% of generated Municipal Solid Waste (MSW). Biowaste has been recognised as a major environmental and social issue to be addressed worldwide. In Cyprus, biowaste acquires an elevated proportion of approximately 40 % of MSW and it is considered a waste stream that gains considerable attention due to the significant quantities and the potential for minimizing the environmental, social and economic impact which in turn can promote resource efficiency and circular economy approaches. Source separation and collection of biowaste is a common practice, applied

especially in EU countries, aiming to divert and treat biowaste in biological treatment facilities (i.e. composting, anaerobic digestion); however, in Cyprus, landfilling remains the predominant waste management option, since limited initiatives have been taken in regard to the application of national policies and technologies for biowaste management

Therefore, the main aim of the investment is to promote the sustainable management of biowaste by finding solutions to treat biowaste separated at the source through composting. Specifically, the investment aims to facilitate the separate collection and proper treatment of biowaste in order to produce environmentally safe compost. The investment is targeting to distribute 50 small and medium size composters in rural and semi-rural communities in Cyprus and another 2000 home composters.

Challenges

Cyprus is far away from achieving the EU biowaste reduction targets of 2025, 2030 and 2035 stated in the Waste Framework Directive 2018/851/EU. Currently, landfill is the major waste management option and the method of composting will assist in the reduction of biowaste. Composting is not a familiar method for treatment in Cyprus.

In the Paphos region, there are no anaerobic digesters for the treatment of biowaste; the closest anaerobic digester is in Monagrouli (Limassol) which cannot accept biowaste. The distribution of composting units/systems especially in the Paphos province will contribute to the treatment of biowaste on a local base.

The population of rural and semi-rural communities are mainly middle-age and elderly people therefore educational sessions should be provided for the correct use of composting units/systems. Additionally, schools should be identified as a target group and provide education sessions to influence children's attitudes towards correct waste management.

Objectives

The main objectives of this investment are the following:

1. Developing decentralised biowaste management by establishing a network of at least 50 small and medium size composting systems. Moreover, 2000 home composting units will be provided to households and schools to enhance source segregation and treatment of biowaste.
2. Assist in the achievement of biowaste reduction targets and contribute to the circular economy.
3. Reduce the amount of biowaste ending up in landfill and reduce the amount of landfill gases emitted to the atmosphere.
4. Use of good quality compost in household gardens and agricultural fields.

Implementation

Initially, a study should be prepared for the planning and design of the community composting systems in all 5 regions of Cyprus. The planning involves the definition of key parameters that will enable the unhindered installation of the composting units and the effective treatment of sorted biowaste. Key parameters include the details on the exact sites for the installation of the systems, the selection of the capacity of the composting systems (small/medium size ranging from 50 to 400 t/y and 2000 home composting systems), the cost of the systems, the population coverage, the interconnection between communities, distance between biowaste producers and the site, the permit/licensing requirements (if any), civil works requirements, accessibility to the site etc. Additionally, the study should cover the technical and economic aspects of the investment. The study shall provide details for the home composting scheme (i.e. type of home composting

systems, household's selection process etc.). Also, the study should identify the dissemination activities for the local communities. After the approval of the study, the tendering documents will be prepared prior the procurement of the equipment. The study and preparation of tendering documents will be funded from other sources.

The following step of the investment is the procurement and installation of the composting units/systems. Educational sessions will be followed with the locals for the correct segregation of biowaste and use of the composting systems/units. In parallel, to support home and school composting initiatives, a Compost Advisory scheme shall be planned to aim to develop a network of Compost Advisors on a voluntary basis. The Compost Advisors will advise people on composting issues, help communities to promote the need for sustainable waste management and enable the continuation of the home composting scheme by engaging with the participants.

Target population

Rural and semi-rural communities of Cyprus that will benefit from improved bio-waste management.

➤ **Construction and operation of Green kiosks for dry recyclables**

The main aim of this investment is the establishment of a Green Kiosk recycling system, that will help municipalities in remote areas to improve their waste management schemes.

Remote areas face particular difficulties in complying with current waste policies and ultimately in contributing to reach the high EU waste management targets, mainly due to lack of infrastructure, lack of accessibility to urban centres, high transportation and management costs.

Therefore, there is an urgent need to support the waste performance of the remote areas by integrating source separation and volume minimisation (compression) prior to its transportation to final markets for further exploitation.

Specifically, the Green Kiosk will address the traditional recyclable waste streams (paper/cardboard, plastic, glass and metal) but it will also receive a) small electrical appliances, b) batteries, c) lightbulbs, d) clothing and accessories, e) books, f) toys and g) other small household items. After the above materials are collected, sorted, separated and stored at the Green Kiosk, they will be transferred to local waste management facilities, alternative waste management systems that specialise in each category, along with local community infrastructures for reusing materials that are in good condition. Moreover, the Green kiosk will serve as an information and awareness raising centre, which will inform and train citizens on how to sort different types of materials.

This action will increase the capacity of local authorities and create green jobs for collecting source separated dry recyclables of high quality by constructing and installing Green kiosks, while facilitating citizens' participation and minimizing illegal dumping especially in the rural areas.

Challenges

Cyprus is facing significant challenges in achieving the targets of the amended EU directives on waste management (Waste Framework EU 2018/851, Landfill EU 2018/850 and Packaging & Packaging Waste EU 2018/852). Amongst the targets set, are those to increase preparation for reuse and recycling of MSW to at least 55% by 2025, 60% by 2030 and 65% by 2035, to increase recycling of packaging waste to at least 65% by 2025 and 70% by 2030, to ban the landfilling of recyclable waste from 2030 and reduce landfill to a maximum of 10% of the generated MSW by 2035 and to make separate collection of textiles and household hazardous waste mandatory from 2025.

The level of information and awareness of the citizens on environmental issues has been increased in recent years (based on the results of the Life+ Programme 'Rethink - Reduce, Reuse,

Recycle, an awareness raising campaign for the Reduction, Reuse and Recycling of waste in Cyprus'), but still remains on moderate levels. Moreover, according to the public opinion survey of the same project, citizens believe that more information and awareness campaigns and activities are needed.

Cyprus is facing significant challenges in reducing the uncontrolled waste disposal in nature, mainly due to lack of waste management infrastructure, lack of solutions for sorting at source, and low levels of public awareness. These challenges are enhanced in rural and remote areas, as well as in high tourist destinations.

Objectives

The main objectives of this investment are the following:

1. Contribute to the overall reduction, reuse and recycling targets of Cyprus
2. Develop an innovative system with key characteristics:
 - o To be developed quickly, spread across the country and connect easily the remote areas with the urban centres
 - o To be flexible (no need for complicated infrastructure) that can serve many and different types of materials, and materials that can appear from time to time depending on the needs.
 - o To be easily combined with other waste management programs that may arise in the future
 - o To be local and user-friendly because it will serve the local communities in their territories
 - o To be educational and can be combined with incentives for the public to participate in proper waste management
 - o To collect the maximum possible quantities of recyclable materials with very low levels of other impurities, thus increasing their marketability

Implementation

This investment will follow different stages of implementation. Firstly, studies (feasibility study, economic study, etc.) should be conducted by other funds, followed by the acquisition of potential licensing (other funds). Third step will be the preparation of the tendering documents needed for the implementation of the project (other funds).

The main part of the investment is the establishment of the infrastructure for the Green Kiosk recycling system. A public opinion survey, conducted 3 months after the establishment of the first two Green Kiosks, will be conducted.

Target population

Local communities of Cyprus that will benefit from the installation of improved reuse and recycling system.

➤ **Construction and operation of Reuse and Repair Centres and networks**

This project action aims at developing the implementation of the waste reuse and repair (preparation for reuse) policy in Cyprus by

(a) constructing and operating two Reuse and Repair Centres in strategic locations in Cyprus that can serve all 5 regions and

(b) establishing a network of reuse shops in major cities of Cyprus (Nicosia, Larnaca, Limassol and Paphos) that will be linked with the operation of the reuse and repair centres.

By means of reuse it shall include any operation by which products or product components that are not waste are reused with the same purpose for which they were designed whereas by means of repair (preparation for reuse) it shall consist of the work to check, clean or repair waste products or waste product components so that such waste can be reused without the need for any other pre-processing.

The goal is to create organised spaces that receive, sort, repair (where deemed necessary) and reuse different waste/material streams. Typical waste/material streams shall include:

- electrical appliances,
- furniture,
- clothing and accessories,
- books,
- toys and
- other household goods/bric a brac, whereas non re-usable goods defective and worn-out goods will not be accepted.
- The Reuse /Repair Centres will also receive reusable waste/material streams collected from the green kiosks in semi-rural and rural areas.

This shall be achieved by four sub-actions as described below.

- Studies for the reuse and repair centres (from other funds)
- Operation licensing & establishment of reuse shop networks (from other funds)
- Construction of two Reuse/Repair Centres and procurement of equipment & supplies.
- Operation of the Reuse/Repair Centres and networks for raising awareness, hands-on training.

Reuse and repair (preparing for reuse) boost waste prevention and give impetus to the social economy. Waste prevention is the most efficient way to improve resource efficiency and to reduce the environmental impact of waste. The development of reuse and repair centres also leads to the creation of local green jobs by employing and training people who have difficulties in the labour market (e.g., long-term unemployed, low skilled workers, persons with disabilities, ex-prisoners and people who have struggled with addictions) and at the same time allows people of low incomes to have access to reused products.

Challenges

- Site selection and licensing the construction and operation of the reuse / repair centres can be time consuming as such infrastructure currently does not exist in Cyprus. Therefore, the development of the preparatory actions is necessary to define all the required procedures and studies for the Reuse /Repair Centres site selection, the establishment of the reuse shop network, the licensing, the procurement of the appropriate equipment, and the assessment of permanent economic viability, to ensure that the actions will be completed without delays.
- Reuse centres are something new for Cyprus, so residents should be properly informed about their purpose and operation. Information campaigns will take place in all the big cities.

- In addition to the above, Cypriots need to stop the uncontrolled dumping of recyclable materials and be able to distinguish when a product can be reused.

The Waste Framework Directive underlines the importance of appropriate measures to prevent waste generation and encourages amongst others the increase of the lifespan of products and the promotion of re-use including through the establishment and support of re-use and repair networks.

- The staffing of the centres may take time until the right people are found for each position and trained properly.

Objectives

The main objectives of this investment are the following:

1. Finalise and submit the final dossier for the operation of the (2) reuse/repair centres to the competent agencies and to issue all required licenses/ authorisations. (from other funds)
2. Monitor the construction and equipment procurement phase of the two Reuse/Repair Centres.
3. The employment of technicians and managers that will support the operation of the two reuse and repair centres. More job opportunities will occur in the future.

The European Network of social enterprises in reuse, repair and recycling, estimates that preparing for re-use of just 1% of municipal waste generated in Europe could help support 200,000 local green and inclusive jobs. Having a huge job creation potential while improving resource efficiency by means of waste prevention, reuse/repair centres should be at the core of any local and regional initiative to favour the shift towards circularity in a socially inclusive manner.

Implementation

Step 1: (funded by other funds)

- The mapping of existing reuse and repair activities performed in Cyprus and the evaluation of the reuse and repair potential in Cyprus.

The two reuse/repair centres will be designated by the respective municipalities. Two potential places have been identified for the creation of the Reuse/Repair centres, one (1) centre in Kosi (serving the Nicosia, Larnaca and Famagusta regions) and one (1) in Ag. Syllas (serving the Limassol and Paphos regions).

- The evaluation and integration of the reuse/repair key factors including amongst other the linkage between reuse and social employment, the embedment of the national waste reuse/repair policy into the local waste policy and planning, the coordination, collaboration, and demarcation of responsibilities between competent authorities.

Reuse and, particularly, preparation for reuse activities may need to be carried out in accordance with certain protocols e.g. classification, transport, repair, cleaning, packaging, delivery protocols. These tasks and other considerations for the operation of both reuse/repair centres shall constitute the main duties that need to be carried out by the centre's staff. Recruitment and training shall constitute an important part of this sub-action considering that the operation of such centres is labour intensive in comparison to other waste management options. To this end a link between environmental care and social employment shall be established, aiming amongst others to integrate vulnerable groups (e.g., long-term unemployed, people with disabilities) into the labour market. Training programmes and courses for people that will operate the reuse centres and networks is envisaged as part of the capacity building activities.

- The preparation of the technical studies:
 1. Preliminary technical study (i.e. infrastructure and equipment requirements, technical specifications, licensing & permissions demand)
 2. Preliminary feasibility study (i.e. infrastructure and equipment costs, operation cost) The main aim of the feasibility study will be to identify the technical and functional specifications and features that can make both reuse/repair centres financially sustainable.
 3. Final techno-economic study.
 4. Preliminary EIA report for the construction and operation of the two reuse / repair centres.

Step 2: (funded by other funds)

- The preparation of the Tender Documents for the construction of the (2) reuse/repair centres and the supply of all the trucks will be within the RRF plans.

Step 3: (RRF)

- The procurement of the Tenders (2nd semester of 2023)
- The evaluation of the offers.
- The Tenders award. (by the end of 2023)

Step 4: (RRF)

- Construction of the two reuse / repair centres. (1st semester of 2024)

The reuse/repair centres shall provide at least the following features: a parking lot, a reception area, an exchange area, a warehouse, a repair point and a second-hand shop. The space shall provide easy access for people with reduced mobility and allow large objects to be easily transported. The building requirements of each Reuse/Repair centre are estimated at 2,000-2,500 m² for indoor spaces and 3,000- 3,500 m² for the needs for open spaces. In terms of supplies, Signs will need to be placed within the facilities so that the area is properly identified. A security system will be placed to avoid theft and access outside the opening hours will be established. IT equipment shall be purchased for administration requirements along with Furniture and tools needed for performing reuse and preparation for reuse activities (e.g., wheelbarrow for transportation, display and storage elements, work and management tools).

Step 5: (RRF)

- The establishment of reuse shop networks shall be performed by joining forces, via agreements, with organisations engaged in repairing, preparing for reuse and selling refurbished products in major cities of Cyprus.
- The adaptation of the agreement with entities authorised to manage integrated management system for specific waste streams, included as a workflow to the reuse/repair centre (e.g. WEEE), is also envisaged considering the fact that Reuse/ repair centres inevitably involve waste inputs.

State Aid

The part of the project concerning composting units and recycling kiosks are directly destined to assisting municipalities /communities in dealing with separate collection of waste. The rules for public tendering will be followed both for the construction and the operation of the units. The composting units and the kiosks will be owned by the local authorities. Article 47 of state aid rules applies.

Concerning the reuse centres and according to article 47 reuse in this case concerns waste which otherwise would have been treated in a way further down in the waste hierarchy. The reuse centres will be owned by the state and construction and operation will follow public tender laws and procedures.

It is also noted that the investment in recycling and reuse will not exceed 15 mln euros per undertaking (3 undertakings)

Target population

Local Cyprus communities which will benefit from reduced waste from the establishing of reuse/repair centres.

Timeline for whole Investment

Q3 2023: Signed contracts for: (1) the set up and installation of at least 50 Green kiosks for dry recyclables, (2) the construction/erection of 2 reuse & repair centres, and (3) the installation of at least 2.050 composting systems.

Q4 2025: Completion of construction / erection and start of operation of 2 reuse & repair centres.

Q4 2025: Completion of set up, installation and operation of the 2.050 composting systems.

Q4 2025: Completion of set up, installation and operation of the 50 Green kiosks for dry recyclables.

- **Investment 13: Establishment of the Orounda Livestock Waste and Animal-By-Product (ABP) Management Facilities**

Livestock waste management in Cyprus is particularly important to achieve a close-loop operation, minimise externalities and recover nutrients for soil improvement and reduce environmental impact. Especially since the number of piggeries, poultry and other livestock farms in operation is on the rise in Cyprus and intensive livestock farming has greatly evolved over the years, thus, extracting more natural resources and simultaneously producing more waste. Although many advances have been made over the years in Cyprus to effectively manage such waste with the operation of livestock waste treatment plants, nevertheless, the area under consideration for this proposal, the Orounda Complex area, still faces intense problems with waste management, due to the high numbers and density of the livestock farms, the insufficient existing treatment in open lagoons and the limited land availability for discharging treated effluent.

The Orounda Complex consists currently of at least 8 local communities, with approximately 50 livestock farms (40% piggeries, 35% sheep and goat farms, 15% poultry farms and 10% cattle farms), and faces several challenges related to the mismanagement of livestock waste. Odours and emissions pose a constant nuisance to the neighbouring local communities, raising significant social and environmental concerns. Simultaneously, the area was designated as nitrate vulnerable zone.

In parallel, there is a need for increasing the efficiency of the management and disposal of Animal By-Products (ABPs), in particular fallen stock from the farms of this area, but also from other areas. According to the EU Regulation 1069/2009, the ABPs deriving from animal farms (corpses of dead animals) and animal products establishments (i.e. slaughterhouses, dairy plants etc) must be duly managed in accordance with the provisions of the Regulation. Apart from incineration, there exist other processes for managing the ABPs, more environmentally friendly, that could yield into biological mass, which in turn can be further treated for producing biogas for energy, thus contributing in this way to the sustainable development and the increase of use of renewable energy sources.

The purpose of the investment is to develop regional Livestock Waste Management Facilities to serve the farms of the wider Orounda Complex area, which will provide an integrated solution for the effective management of the organic waste produced mainly from piggeries, poultry, sheep, goat and cattle farms. In combination, the investment will serve for utilising ABPs to gain energy through biogas production, after being processed with pressure sterilisation in a nearby unit. The facilities will serve several purposes via different processes / components:

1. The valorisation of piggery, poultry and cattle farm manure, and fallen stock from farms, or other material confiscate or possess the Veterinary Services of Cyprus, for energy production through the process of anaerobic digestion.
2. The aerobic treatment of the anaerobic process liquid to produce water for irrigation.
3. Co-composting of sheep and goat manure with agricultural pruning and park and garden waste to produce high-quality compost.
4. Co-composting of anaerobic digestate and aerobic sludge with agricultural pruning and park and garden waste to produce of organic soil conditioner.

Challenges

An official governmental study has identified that 8 communities of the Orounda Complex are subject to odours annoyance, well above the maximum accepted limit suggested by the EU, which is 10% of the duration of a day. In fact, Kato Moni Community has a record of 37% (9 hours/day) of offensive odours exposure due to livestock farms and improper waste management practices. The proposed Livestock Waste Management Facilities that will serve all 8 communities that have been studied, but even other neighbouring communities in the wider area if facing similar environmental issues with their livestock waste, has been a long-standing request of the 8 Community Councils and is expected to alleviate this distressing environmental issue.

Most livestock wastewater is currently directed to 120 open lagoons that might lead to leaks and spills. The lagoons are uncovered and often operate under anaerobic conditions, thus, generating significant odours that are a nuisance to more than 7000 residences of the neighbouring communities.

The livestock solid waste is stored in the farm premises for a period of six months, as required by the legislation, until is applied onto agricultural land, as fertiliser. However, since a large part of the Orounda Complex area has been identified by the EU as one of Cyprus' Nitrate Vulnerable Zones (NVZ), several restrictions related to the nitrification of aquifers and soil fertilisation practices are to be complied with.

The low organic matter content (>1%) of the soil in Cyprus would benefit by the production and application of higher value compost. The Government has already recognised the significance of this practice and has allocated funds through the new Common Agricultural Policy (CAP) 2021-2027 Strategic Plan in the form of subsidies to farmers for compost application. The proposed project is in-line and complements the National Policies for soil productivity enhancement and to combat soil desertification.

Furthermore, the proposed project falls well within the actions towards the National Strategy combating climate change:

- Cyprus' Integrated National Energy and Climate Plan: Valorisation of livestock organic waste for methane to electricity production, enhancing the stabilisation of the contribution of Renewable Energy Sources (RES) to the overall energy supply. Unlike other RES (PV, Wind energy), electricity production through the valorisation of the livestock waste is not affected by environmental climate conditions and can operate on a 24-hour basis.

- National Soil resilience plan: green organic waste and livestock organic waste, should be co-composted with agricultural pruning to produce organic soil amendment for application in agricultural land.

Livestock waste is responsible for non-CO₂ GHGs emissions in the form of methane (CH₄). In addition, indirect emissions of N₂O are noticed due to the volatilisation of ammonia (NH₃), both within the lagoons and waste piles. The proposed project will reduce methane and N₂O emissions by treating livestock waste through anaerobic digestion and produce energy with the produced biogas.

Other challenges that can be encountered is the proper handling, disposal and management of the ABPs according to Regulation's 1069/2009 provisions in an environmentally friendly manner.

Objectives

The investment proposed is the first of its kind for the demonstration and application of the basic principles of Circular Economy in Cyprus (Design-out waste and pollution; Keep products and materials in use; Regenerate natural systems). The project also deploys the development of bio economy in rural areas in the field of waste management.

- Livestock liquid waste and ABP biomass are transformed into biogas and then energy, covering the energy demand of local farms and communities. Heat recovered from the energy production process will be utilised to cover the thermal energy demand of the system.
- Treated effluent shall be used for irrigation purposes of local arable land and the production of animal feed to cover the needs of the local livestock.
- Livestock solid waste is processed into compost achieving:
 - Active Soil Organic Carbon (SOC) concentration enrichment and soil productivity enhancement.
 - Nitrate pollution minimisation, soil fertility reduction, water-retention capacity declination and reduction of soil erosion and thus desertification.
 - Minimising the need for soil fertilisation and increasing soil resilience.
- The proper handling, disposal and management of the ABPs according to Regulation's 1069/2009 provisions in an environmentally friendly manner.
- Avoiding the environmental pollution cause by improper management of ABPs which can be used for producing renewable energy thus contributing also towards conserving the environment and the energy resources.

The project will make use of three well-established technologies, aiming to utilise all waste streams from livestock farming on a fully and quantitatively Circular way:

1. Anaerobic digesters with pasteurisation and pressure sterilisation.
2. Aerobic and other treatment of the liquid resulting from the anaerobic digestion.
3. Co-composting of the digestant and agricultural pruning and park and green waste to produce organic soil amendment and compost.

More specifically, the objectives of the investment are as follows:

1. Treat the big quantities of livestock waste produced in the area and other ABPs, as well as the treatment of agricultural pruning and other organic waste of the area
2. Produce electricity from biogas

3. Produce compost and improve agricultural land
4. Combat desertification at the local level
 - by increasing the SOC content
 - improved soil structure and therefore reduced soil erosion in treated agricultural land due to the increase of organic matter content. Improvement cannot be expressed in absolute values or percentages prior to the implementation of the project
 - higher content of humic substance (recalcitrant carbon) and thus greater carbon sequestration/climate action.
5. Reduce odour annoyance of local communities to less than 10% of the duration of the day, which is the EU recommended threshold
6. Reduce GHG emissions
7. Produce water for irrigation and minimise water abstraction

Implementation

To address the existing problems faced by the 8 communities of the Orounda Complex, the challenges arising from fallen animals, and possibly more to arise in the future, a 3-stage processing facility is being proposed providing feasible and realistic solutions.

The purpose of implementing this infrastructure is to address and resolve the social, economic, and environmental issues, which concern both local communities but mainly the respective governmental Authorities responsible for enforcing the related environmental legislation, i.e. the Ministry of Agriculture, Rural Development and Environment, the Department of Environment, the Veterinary Services, the Department of Agriculture and others.

The facilities will accept solid waste and wastewater from agricultural / farming facilities which have an environmental impact within the area. In detail, the facility will be designed to accept daily hundreds of tons of pig slurry and other livestock waste (i.e.: manure from poultry, cattle, ovine and caprine farms) as well as other biodegradable waste generated in this area including park and garden waste and agricultural pruning waste. In addition, the facilities will receive ABP such dead animals from farms, and food establishments that produce ABPs (i.e. slaughterhouses, dairy plants etc) requiring pressure sterilisation. After been sterilised under pressure, these materials will also be piped in the anaerobic digesters to be transformed into biogas.

The quantities and types of raw materials expected to be treated are:

- 1300 tons/day livestock waste (manure),
- 100 tons/day agricultural pruning and municipal organic waste
- 200 tons/day slaughterhouse waste
- 24 tons/day (9000 tons/365 days) Animal By Products (dead animals)

The facility will be established in proximity from the 8 communities (max 2.5 km from each community) and the waste will be transferred by pipeline from the large pig farms and the slaughterhouse waste. Whereas waste from smaller facilities will be transferred to the facility via trucks and tankers. The trucks and tankers are included in the cost analysis.

During the first year, all necessary feasibility and preparatory studies will be carried out (techno-economical study, the EIA study), whilst all required applications for permitting will be submitted. Detailed design, land acquisition, preparation of tender documents and tender launch will be

done in the 2nd year. The construction will commence in the 3rd year of the project timeline and it will have a duration of 30 months.

The investment shall generate revenues as follows:

- The Co-Composting system, which will handle the solid digested mixed with green landscaping waste and agricultural pruning waste, shall produce fertilizing substrates. The facility is expected to produce 15 000 tons of fertiliser on an annual basis, that will be offered to farmers in exchanges for a small fee per ton of fertiliser which will be determined during the pre-engineering phase.
- The Anaerobic Digestion facilities will produce biogas (methane) to be used for electricity production of 3.5 MWh (for 20 hours of daily operation) at full capacity, 365 days a year and this will be the main source of revenue which shall be made available for the price unit of 9 c euro per kWh at full capacity (expected by the end of project). The electricity produced will be supplied to the grid.

(<https://www.eac.com.cy/EL/RegulatedActivities/Supply/renewableenergy/resenergypurchase/Pages/default.aspx>)

The wastewater treatment plant will produce water that will be supplied to farmers for irrigation. The water will be supplied for free to the local water grid, this eliminates the need to purchase extra services regarding its handling.

The proposed investment and activities will be planned and implemented with respect to the “do-no-significant-harm” principle. A Monitoring Committee will be assigned to overview and ensure that all activities do no harm to the six environmental objectives (climate change adaptation; climate change mitigation; sustainable use and protection of water and marine resource; protection and restoration of biodiversity and ecosystems). In fact, during the Project’s preparation phase a dedicated Construction Environmental Management Plan and an Operational Environmental Management Plan, which will include Key Performance Indicators, will be set in place, to ensure effective monitoring and control of all environmental aspects related to each environmental objective, during the construction and operation of the project.

State Aid

The facilities will be developed and owned by the Government and they will be managed as a Central Governmental Project. The Government will use the Public tender procedures for reaching an Agreement with the private sector for the services of “Design, Built and Operate”, as the normal practice with all other governmental projects, such as the Vathia Gonia Industrial Wastewater Treatment Plant, the Koshi Integrated Solid Waste Management Facilities, the Pentakomo Integrated Solid Waste Management Facilities etc.

Target population

The negatively impacted 8 communities of the Orounda complex that will directly benefit from the new facilities.

Timeline

Q1 2024: Securing of all licences for the construction of facilities for wastewater treatment and co-composting (environmental, construction and operating permits and licenses) and relevant land acquisition.

Q2 2026: Completion and operation of the Anaerobic Digestion facilities, aiming to produce biogas (methane) to be used for electricity production of 3.5 MWh (for 20 hours of daily operation) at full capacity, 365 days a year. The electricity produced will be supplied to the grid.

Sub-Component 3.1.5 Competitive Export Oriented Services Sector:

As stated in the introduction, the reforms and investments in other components and axes of this plan will contribute to the implementation of the new economic growth model in the context of the new long-term strategy (LTS) for sustainable growth and competitiveness. The LTS calls for the further development of the Services Sector, which has already been one of the pillars of growth, attaching emphasis on the already growing professional services and the ICT sector and digital services, the export oriented medical services as well as export-oriented education services.

In particular, there are key reforms in other Axes relating to developing an increasingly competitive services sectors such as the professional and ICT services and the health sector that are critical to supporting the transition to the new growth model and that will be foundational to driving new economic and sustainable growth. Indicatively:

Professional and ICT Services & Digital services: Digitalisation is one of the core underpinning elements to the new growth model for Cyprus, titled Europe's Sustainable Business and Trade Hub. In order to be a future-proofed and competitive hub with a flourishing professional services and ICT sector that attracts sustainable business and trade, digitalisation of the public sector and its citizens' services and infrastructure, business processes and infrastructure of the private sector, as well as skills of the society are imperative. **Axis 4** which targets the transitions towards a digital era contributes directly to achieving this – specifically the connectivity-related Investments 1 and 2 relating Very High-Capacity Networks in underserved areas and Building Cabling to be “Gigabit-ready” and promoting take-up all directly contribute to making Cyprus more viable as a business hub that will attract professionals and corporates to boost the services industry in the economy.

Similarly, **Axis 3, Component 3.3** includes relevant reforms for boosting the competitiveness of the **services industry** and targeting the technology-enablement of business such as **Investment 4** for the digital upgrade of enterprises. To attract new individuals or corporates to relocate to Cyprus and contribute to the **services industry**, the reforms and investments of Component 3.3 regarding business competitiveness are critical for success and achieving long-term competitiveness.

Health care services were also identified by LTS as one of the potential drivers for future economic growth in Cyprus, since due to its location and climate the country lends itself nicely to health services and rehabilitation activities. In order, however, to be able to contribute to the transition to the new economic growth model through the health care services, Cyprus must have in place an effective and internationally competitive health care system, which will be able to attract new long-term residents that place a significant importance in the health care sector and short-term tourists for medical purposes. As tourism is a fundamental part of the Cypriot economy, efforts should be made to diversify the product mix away from a pure focus on sun, sea and sand and focus should be placed on the new and growing market of medical tourism.

Axis 1, Component 1.1 includes key reforms and investments that aim to further strengthen the improvement of the quality of the provided services within the healthcare system, in both public and private sectors, and thus its overall competitiveness, making it at the same time more export oriented.

Indicatively, **Reform 1** regarding National Centre for Clinical Evidence and Quality Improvement, **Reform 3** regarding shifting towards a value-based health care model, and **Investment 4** regarding accreditations for public and private hospitals, all directly support in delivering the new growth model.

Overall, the reforms and investments pertaining to the business environment under component 3.3, but also measures under component 3.4, in particular the reforms relating to the modernisation of the Public Administration are expected to significantly contribute to the

strengthening the competitiveness of the Services sectors, which in turn will contribute to the export capabilities, diversification and resilience of the Cyprus economy.

5.4 Open strategic autonomy and security issues

The objective of the component is to reduce dependence on limited and vulnerable sectors of economic activity and enhance self-sufficiency in critical sectors, such as the primary sector, and increase the resilience, competitiveness and diversification of the economy.

Furthermore, the reforms and investments incorporated in Component 3.1. contribute to the digital transformation and to the enhancement of the digital capacities and connectivity, through the employment of digital technologies, infrastructures and processes, which in turn enhance the national-level as well as the Union-level competitiveness and reduce the dependency on key supply chains.

5.5 Cross border and multi-country projects

This component does not include a cross-border or multi-country project.

5.6 Green dimension of the component

Sub-Component 3.1.1 Resilient and competitive primary sector

Reform 1 aims to contribute to strengthening the country's primary production sector and to the protection of the environment, through the establishment of a strong collaboration with the public universities. Such collaboration will promote the development of high added-value products for the agricultural sector and facilitate the establishment of innovative agri-tech spinoff companies, as well as start-ups in the sector.

Reform 3 entails the genetic improvement of the Cyprus sheep and goat population, and therefore is not directly linked to the climate objectives. Nevertheless, the genetic improvement of sheep and goats will promote the efficient use of feed produced on agricultural land, whereas, more sustainable breeding practices will be implemented to support the entire small ruminant farming system.

Investment 1 further contributes to the efficient use of natural resources and thus to the reduction of greenhouse emissions by developing sustainable marine offshore aquaculture and improving its environmental performance, through the enhancement of the marine aquaculture infrastructure.

Investment 2 refers to the enhancement of the existing isotopic databases of Cypriot local traditional food/drinks, and thus contribute to strengthening the country's primary production sector and the protection of the environment. Investment 2, complies with the European Green Deal, providing actions investing in environmentally- friendly technologies and supporting innovation.

Sub-Component 3.1.2 Innovative and competitive secondary sector

Investment 4 regarding the investigation for the creation of the first Eco-Industrial Science Park will indirectly contribute to the Green transition as the creation of the Park will lead to the technology transfer and cooperation between enterprises focusing on the low carbon economy, resilience and adaptation to climate change. Moreover, the creation of the Park will lead to the production of more green-tech and agri-tech products.

The two Schemes **under Investments 6 and 7** will directly contribute to the Green transition through the facilitation of more efficient machinery and facilities. The Schemes give to enterprises the potential to reduce energy consumption and increase energy efficiency as they will give them the opportunity to invest in new and upgraded technologies.

Sub-Component 3.1.3 Sustainable high value-added tourism sector

The transformation of the tourism sector focuses on the shift towards agrotourism, slow tourism, rural tourism, which constitutes a step towards a more sustainable use of resources, taking the weight off the over-exploited coastal areas, without burdening the natural resources of the Cyprus countryside, mountainous and remote areas. This transformation also incorporates the promotion of circularity in the hotel establishments, in order to further enhance sustainable practices, transforming thus the tourism sector's business model.

As regards **Investment 9** aims to enhance sustainability through the promotion of circular practices in the hotel establishments. It involves the transformation of the hotels' business models to circular and the development of their existing circular products or services, with an emphasis on maintaining and minimizing of resource consumption and GHG emissions. This investment therefore is directly related to the support to environmentally friendly production processes and resource efficiency in the hotel establishments.

Investment 10, "Enrichment of the tourism product in rural, mountainous and remote areas" incorporates the Thematic Route Aphrodite - Inia, aims to enhance the environmental awareness and consciousness of the public, both locals and visitors to the area, as well as to promote biodiversity.

Sub-Component 3.1.4 Circular economy

The proposed **Reform 4** regarding the Enhancement of Circular Economy in the Industry is expected to have positive contribution to the Green Dimension since it is expected to have significant positive contribution towards the following

- ✓ Reducing the use of energy and materials in production and use phases
- ✓ Reduce the use of natural resources in production and operations
- ✓ Incentivizing and supporting waste reduction and minimisation
- ✓ Facilitating the clustering of activities to prevent by-products, co-products and end-of-life products from becoming wastes
- ✓ Promoting Circular and Green Public Procurement

Reform 5 will work as a driving force to reduce municipal waste, reduce the use of resources, upscale waste management towards recycling, reuse and separate collection of waste streams. At the same time, the Coordinating Body will contribute to creating long-term stability conditions in planning and financing waste management.

Investments 11 and 12 aim to enhance the prevention and minimisation of waste and develop new manners of environmental behaviour regarding sorting, reusing and recycling. More specifically, **Investment 11** will contribute to the climate and environmental objectives defined in Regulation 2020/852 (Taxonomy Regulation), as the main goal is to mitigate the serious, for the State of Cyprus issue, of the uncontrolled illegal dumping of waste in public areas. By avoiding waste landfilling and illegal and uncontrollable dumping, it will contribute to:

- climate change mitigation;
- the sustainable use and protection of water resources (groundwater and surface water);
- pollution prevention and control;
- the protection and restoration of biodiversity and ecosystems.

The investment will contribute to the upscale of the recycling and reuse, thus contribute to the circular economy as described below:

- Avoiding landfilling by reducing the amount of waste production
- Avoiding greenhouse gas emissions that contribute to global climate change
- Helps sustain the environment and the encourages the biodiversity
- Conserves natural resources by reducing waste production
- Circular economy contribution by repair and reuse

The implementation of **Investment 12** is directly contributing to the objectives of pollution, prevention and control, while indirectly is contributing to climate change mitigation and adaptation objectives, as well as to the transition to a circular economy.

In addition, the project contributes to the National Energy and Climate Plan of Cyprus through:

- Reduction of GHG emissions in the agricultural sector and in the waste sector - Decarbonisation.
- Increase of anaerobic digestion for 2030 for cattle, sheep, goat, poultry, and swine manure and other ABPs.
- Reduction of organic waste to landfills.
- Valorisation of municipal organic waste for methane to electricity production, thus contributing to the target of reducing landfill to a maximum of 10% of the total amount of municipal waste generated by 2035.
- Enhancing the production of Renewable Energy Sources to the overall energy supply thus contributing to Cyprus's RES target by 2030.

Having in mind the six climate and environmental objectives defined in Regulation 2020/852, **Investment 13** will contribute towards the green transition and the EU's 2030 climate target and climate neutrality by 2050 as follows:

- Energy production from renewable energy sources- decarbonisation.
- GHG emissions reduction from the treatment of livestock waste.
- GHG emissions reduction from compost use compared to chemical fertilisers.
- Combating desertification via compost application to agricultural land thus contributing to soil
- fertility reduction, water-retention capacity decline and soil erosion minimisation.
- Prevention of nitrate pollution of ecosystems via avoiding over-fertilisation of agricultural land
- and thus, contributing to the good ecological potential of bodies of water, including surface
- water and groundwater of the area.

- Applying circular economy principles: Closing the loop for livestock waste-municipal green waste and agricultural pruning, and the production of secondary raw materials from biodegradable waste treatment.
- Contributing to sustainable use and protection of water: treated water from aerobic waste management plants will be used for irrigation purposes.
- Pollution prevention from the management of livestock waste, currently directed to waste lagoons which often operate under anaerobic conditions, generating odours and disturbing over residences of the neighbouring communities.
- Complementing the Common Agricultural policy aiming to reduce emission from the agricultural sector and to enhance the economic and environmental sustainability and resilience of the sector.

In addition, the project contributes to the National Energy and Climate Plan of Cyprus through:

- Reduction of GHG emissions in the agricultural sector and in the waste sector - Decarbonisation.
- Increase of anaerobic digestion for 2030 for cattle, sheep, goat, poultry, and swine manure and other ABPs.
- Reduction of organic waste to landfills.
- Valorisation of municipal organic waste for methane to electricity production, thus contributing to the target of reducing landfill to a maximum of 10% of the total amount of municipal waste generated by 2035.
- Enhancing the production of Renewable Energy Sources to the overall energy supply thus contributing to the Cyprus's RES target by 2030.

5.7 Digital dimension of the component

Sub-Component 3.1.1 Resilient and competitive primary sector

Reform 2 refers to the establishment of an on-line, cloud-based platform which is part of the government ICT solutions, contributing thus to the digital objectives. Reform 2 will have a direct contribution to the digital transition and a positive effect on the producer's income. This will improve the status of the primary sector in the economy as it will influence the following:

- Minimise unfair practices through the use of digital platforms.
- Better production programming will increase the optimisation of the production and the sustainability of the use of natural resources.
- Farmers and producers' organisations will improve their digital capabilities.
- More transparent price setting via electronic and digital tools.

Reform 3, which aims at the genetic improvement of the Cyprus sheep and goat population, has a strong digitalisation component, since it involves data collection and reporting via digital means that would significantly increase the digital skills of the sheep and goat community and related stakeholders, and is therefore part of the government ICT solutions, contributing thus to the digital objectives.

Investment 2 has a significant digital dimension as it is also part of using the of the government ICT solutions and uses blockchain technology for the establishment the isotopic databases. Investment 2 fully complies with the provisions of the Distributed Ledger Technologies

(Blockchain) – A national strategy for Cyprus, Priority 2: Enhancing the application of the technology by the government and the private sector. The proposed project foresees the development of electronic databases and development/ implementation of blockchain in the field of Cypriot agricultural products (e.g. wine, spirits, honey, dairy products, etc.) and as such it fulfils the requirements of the above-mentioned Strategy, Priority 2.

Investment 3 directly contributes to the digital transition as it ultimately aims to upskill the farming community and enhance the practices through use of agri-tech solutions.

Sub-Component 3.1.2 Innovative and competitive secondary sector

Investment 4 will indirectly contribute to the Digital transition through the creation of a Science Park in which green-tech, agri-tech, and other innovative products and ICT solution will be produced (provision that will positively impact digital enablement of the secondary sector of Cyprus).

The two Schemes under **Investments 6 and 7** will provide grants for expenditures related to digital technologies, giving thus the opportunity to the enterprises to invest in new and digital upgrade technologies. These investments will help strengthen enterprises' digital identity and promote digital entrepreneurship.

Sub-Component 3.1.4 Circular economy

The set-up of a sharing marketplace platform **under Reform 4** that aims to connect supply and demand of materials, scrub or waste in a professional manner in order to reduce waste, contributes directly to the digital transition.

5.8 Do no significant harm

In all measures included in this component that foresee construction works and purchase of new equipment, machinery, vehicles etc., all procurement procedures will require compliance with the DNSH principle as explained in detail in the separate DNSH assessment of the corresponding measure. This will apply both for investments in the public sector and for financial support schemes to the private sector.

See separate assessment performed on this area included as ANNEX 3 - Assessment of the compliance of the Cyprus Recovery and Resilience Plan with the 'Do No Significant Harm' Principle.

5.9 Milestones, targets and timeline

The milestones and targets for the investments/reforms of this component are presented in the attached table.

5.10 Financing and Costs

The cost for each milestone and target is presented in the attached table.

5.11 Loan request justification (if applicable)

The following measure will be included in the loan request:

- Investment 11: Improvement and extension of the Cyprus Green Points Network and creation of a network of Collection Points and Recycling Corners
- Investment 13: Establishment of the Orounda Livestock Waste and Animal-By-Product (ABP) Management Facilities will be included in the loan request.

The reasons for a loan request by Cyprus in this area include the high financial needs in order to mitigate the economic and social impacts of the COVID-19 crisis, the need to upgrade the waste management and the need to address the CSRs related waste management (CSR 2019, 4.1 and CSR 2020, 3.1).

The remaining measures of this component will be covered by the grant element of the Plan.

**Policy Axis 3 Strengthening the resilience and
competitiveness of the economy**

COMPONENT 3.2 Enhanced Research and Innovation

6. COMPONENT 3.2 Enhanced Research and Innovation

6.1 Description of the component

Policy area/domain: Enhanced Research & Innovation

Objectives:

The aim of the component is to strengthen links between research organisations and enterprises, commercialise research results, increase intensity in research & development (R&D) activity and investments by both public and private organisations, as well as to make all publicly funded research infrastructure accessible to the entire ecosystem. Furthermore, it aims to enhance financial support to start-ups, scale-ups, SMEs, internationalise the local research and innovation (R&I) ecosystem, develop local talent and attract talent from abroad to work in R&I with emphasis on specific thematic areas.

Reforms and investments under this Component are directly related with the Country Specific Recommendations 2020/3 and 2019/4, especially and with regard to increasing the focus on investment-related economic policy on sustainable transport, environment (in particular waste and water management), circular economy, energy efficiency and renewable energy, digitalisation (including digital skills), and research and innovation, taking into account regional disparities.

Reforms:

- Reform 1: Comprehensive national R&I Policy supported by data-driven policy tools to support the R&I Ecosystem and to enhance links between policy making and implementation
- Reform 2: Incentives to encourage and attract investments and human capital in R&I
- Reform 3: Introduce policies and incentives to facilitate and foster access to publicly funded research infrastructure and laboratories

Investments:

- Investment 1: Set up and operate a central knowledge transfer office
- Investment 2: Innovation funding programs & funding schemes for the enhancement of growth & competitiveness of start-ups, innovative companies and SMEs
- Investment 3: Thematic research and innovation funding program on green transition
- Investment 4: Funding schemes to support organisations performing R&D activities on dual technologies, including the creation of new or upgrade of existing laboratories and the development of classified laboratories

Flagship initiatives: PowerUp, Recharge and Refuel, Modernise, Reskill and Upskill

Total estimated budget to be funded through the RRP: €64 mln

6.2 Main challenges and objectives

Main challenges

Cyprus recognises the importance of the research and innovation (R&I) sector as one of the key drivers for economic growth and social prosperity and has made significant efforts and reforms in recent years to enhance the R&I Governance system. The culmination of these efforts was the creation of the Deputy Ministry of Research, Innovation and Digital Policy (DMRID) in March

2020. Furthermore, the R&I Strategy Framework 2019 -2023 “Innovate Cyprus”, approved by the National Board for Research and Innovation, aims to cultivate R&I culture, augment research capacity both in research infrastructures and human capital and facilitate the exploitation and commercialisation of research results, including the scaling-up of innovative companies. Additionally, among the priorities are the creation and enhancement of linkages between public and private research institutions, as well as linkages between academia and research organisations with the industry, at local and international level.

Despite the significant strengthening of the research & development (R&D) sector, expenditures as a percentage of GDP remain low compared to the EU average (2.12%), though increased to 0.63% of GDP in 2018, exceeding the national target of the Europe 2020 Strategy (0.50% in 2020). In terms of innovation, Cyprus has marginally improved its position on the European Innovation Scoreboard (EIS), but the country continues to be placed in the ‘moderate innovators’ group of countries.

According to the European Commission’s analysis, in the context of the European Semester, Cyprus has a small but growing R&D ecosystem, that plays a limited role in economic growth. There is, however, great potential for growth and expansion that could lead to an increased role in economic growth in the future. The crisis caused by the pandemic has further highlighted the need to develop the R&D sector as a key pillar for overcoming the challenges and creating a healthy, solid and resilient economic growth.

While Cyprus benefits from a highly educated population, its R&D system remains very small, and its role in economic development is rather limited partly because only a small percentage of these graduates have degrees linked to technological innovation. Despite the high level of tertiary education graduates, Cyprus has a low share of Science, Technology, Engineering and Math (STEM) graduates, ranking lowest among EU countries. In addition, the number of new doctorate graduates is lower than the EU average (European Innovation Scoreboard). According to the DESI index, basic and advanced digital skills levels remain below the EU average whereas ICT specialists are still a lower proportion of the workforce than in the EU.

The quality of the public research system is a point of strength, but its interaction with the business sector is very limited. Public universities and research centres in Cyprus, have high scientific performance. However, university-business cooperation is quite low. As a result, commercialisation of research results and enterprises capacity to innovate remains at a low level. This is also partly due to the fact that there is no structured framework in place to promote and facilitate commercialisation of research results in Cyprus.

Domestic demand for research and related services by research institutions is currently very low, with the Cypriot enterprises being mostly concentrated in traditional sectors. Collaboration between research institutions and businesses is very weak and the services offered are generally poorly structured, often lacking in visibility, and are frequently observed in an ad-hoc basis. There are also culture and regulatory barriers within the ecosystem that significantly inhibit the development of sustainable academia-industry interaction

Access to funds continues to be a major challenge for SMEs, but also start-ups. There is limited access and availability to risk funding from private investors including Business Angels and Venture Capital firms. This is potentially hindering the creation of scalable enterprises in innovative sectors as well as the capacity of existing businesses to innovate and grow. As a result, employment in such enterprises is also lagging the EU average. It also results in overreliance on funding by the public sector. The issue of access to finance will be addressed under **Component 3.3. Business Support for Competitiveness**.

The creation of clusters of excellence, gathering universities and businesses in the areas of environment/climate, agrotech, maritime, health and ICT, in line with the updated national Smart

Specialisation Strategy, demands efforts regarding the enhancement of collaboration culture among stakeholders.

Internationalisation of the R&I ecosystem, enabling knowledge exchange and the creation of partnerships as well as the conduct of excellent R&I, centred around collaborative research, is very limited. Participation of the country in EU advisory bodies should also be enhanced. The key purpose should be to be present in international organisations, making Cyprus visible and gaining insights on strategic research agendas.

The use and integration of digital technology in Cyprus remains below the EU average, particularly in the public sector.

Objectives

The proposed reforms and investments aim to support the operation of the R&I Governance, address the major challenges of the R&I ecosystem in Cyprus and contribute to the implementation of relevant national and European policies and strategies and meeting relevant targets. Furthermore, they aim to support the productivity, competitiveness and growth of the economy and the promotion of digital and green transition in a post-pandemic world. Specifically, reforms and investments are intended to:

- Promote policy measures, instruments and incentives to facilitate the utilisation of research results, enhance innovation and promote commercialisation of innovative solutions.
- Allocate significant funds for businesses innovation and securing adequate access to funds and liquidity, especially by small- and medium-sized enterprises (SMEs) and start-ups, in order to maintain scalability potentials, preserve active business cycles and enhance employability.
- Support start-ups and scaleups, in the form of dilutive equity investment and by the introduction of incentives for enhancing or attracting venture capital investments in these companies.
- Set up measures, regulation and incentives to encourage enterprises to increase their investments in R&D and to be involved in R&I activities.
- Promote optimal utilisation of publicly funded research infrastructure and support and encourage academia-business collaboration.
- Contribute towards the green and digital transition, in particular clean, efficient production and use of energy, waste and water management, circular economy, sustainable transport, digitalisation, research and innovation, in order to achieve the 2030 target for greenhouse gas emissions not covered by the EU emissions trading system.

CSRs addressed

Reforms /Investments	Year / CSR Numbers Recitals	Justification
Reform 1: Comprehensive national R&I Policy supported by data-driven policy tools to support the R&I Ecosystem and to enhance links between policy making and	CSR 4 2019, Recital 16	Supporting the operation of the new R&I Governance System and updating of the national R&I Strategy will facilitate the better organisation of the system in order to address the needs, minimise fragmentations and challenges of the R&I ecosystem. Policies and Regulations favour the expansion of a high-risk capital market, which is expected to address the

<p>implementation</p>		<p>funding needs. It is considered that in the medium and long term, businesses would benefit more from financial instruments i.e., loans, guarantees and equity, or other instruments with higher private leverage, rather than grants. The review and enhancement of fiscal and other incentives will encourage the attraction of investments both from local and international firms and enterprises as well as from high risk VC funds.</p> <p>Regulation and incentives on the mobility of human resources is expected to enhance the capability of Cyprus to attract high-calibre researchers and experts.</p>
<p>Reform 2: Incentives to encourage and attract investments and human capital in R&I.</p>	<p>CSR 4 2019, Recital 16</p>	<p>Expected to boost R&D investment by private companies. Expected to have positive effects on attracting new researchers from abroad as well as on the limitation of brain drain. Furthermore, the promotion of R&I culture to the whole spectrum of the economy will create the conditions and opportunities for training and employment of new researchers.</p>
<p>Reform 3: Introduce policies and incentives to facilitate and foster access to publicly funded Research Infrastructures and laboratories.</p>	<p>CSR 4 2019, Recital 16</p>	<p>Aims to enhance collaborations and linkages between research/academic organisations and industry. It will significantly enhance R&D activity mainly in industry and the private sector in general. Furthermore, it will expand the research and innovation capacity of the country.</p>
<p>Investment 1: Set up and operate a central knowledge transfer office</p>	<p>CSR 3 2020, Recital 25 CSR 4 2019, Recital 16</p>	<p>Support the commercialisation of research results.</p>
<p>Investment 2: Innovation funding programs & funding schemes for the enhancement of growth & competitiveness of start-ups, innovative companies and SMEs</p>	<p>CSR 4 2019, Recital 16</p>	<p>Expected to provide funding through Innovation Programs improving the ability of innovative SMEs and start-ups to access funds and contribute to the overall increase of R&D investment.</p>

Investment 3: Thematic research and innovation funding program on green transition	CSR 3 2020, Recital 25	Aimed to provide funding through thematic Research and Innovation Programs of relatively high TRLs focusing on Green Transition and Circular Economy.
Investment 4: Funding schemes to support organisations performing R&D activities on dual technologies, including the creation of new or upgrade of existing laboratories and the development of classified laboratories	CSR 4 2019, Recital 16	Expected to increase Research and Innovation by the private sector in the specific area.

6.3 Description of the reforms and investments of the component

- **Reform 1: Comprehensive national R&I Policy supported by data-driven policy tools to support the R&I Ecosystem and to enhance links between policy making and implementation**

The newly established²⁰ Deputy Ministry of Research, Innovation and Digital Policy (DMRID) aims to contribute to the development of a new growth model, driven by research, scientific excellence, innovation, technological development and entrepreneurship. In this respect, DMRID is analysing the strengths, opportunities and needs of the R&I ecosystem.

Furthermore, the Chief Scientist has the mandate to promote the efficient coordination of the R&I governance system, to foster awareness raising and nurture innovation culture, to mobilise stakeholders and to develop and augment the fundamental building blocks of the national R&I ecosystem. To this end, the Chief Scientist is chairing the R&I Ministry Coordinators Committee, the role of which is to initiate/establish collaborations between Ministries and various stakeholders of the R&I ecosystem in order to introduce/test innovative solutions which can potentially be implemented by the public sector.

Currently, DMRID, in collaboration with the Chief Scientist, is formulating actions aiming to enhance the links between the three levels of the R&I ecosystem: policy making, strategy and implementation, stakeholders and users/citizens.

Furthermore, the Strategic Framework 2019-2023 “Innovate Cyprus”, approved by the National Board for Research and Innovation, embraces an ambitious vision as a basis for the development of a comprehensive national R&I Strategy. In this context, the national strategy, which is under preparation, will cover and address the needs, shortcomings and challenges of the R&I ecosystem. The review of the Smart Specialisation Strategy of Cyprus, will complement the national strategy and based on the national priorities and the Country Specific Recommendations, will identify the focus areas and scientific pillars applicable.

Finally, DMRID, in cooperation with the Chief Scientist, is developing a Support and Monitoring Mechanism for the 6 Centres of Excellence (co-funded under Teaming for Excellence Horizon 2020 Program). The Mechanism, will provide support services related to the operation and

¹ as of 1st March 2020

sustainability of the CoEs, focusing on the promotion of innovation, the commercialisation of research results into innovative products and services, the strengthening of cooperation with the private and public sectors and the promotion of their extroversion and international networking. Additionally, the Mechanism will monitor the operation of the Centres and promote the alignment of their actions/services with the priorities set in the National R&I Strategy.

Timelines

Q1 2022 - Establishment of a mechanism for impact driven monitoring and support of the 6 Centres of Excellence.

Q4 2022 - Adopt a national strategy for R&I accompanied by an Action Plan based on the priorities of the Deputy Ministry and the Strategic Framework 2019 - 2023 “Innovate Cyprus” and review of the Smart Specialisation Strategy.

Q4 2022 - Develop a digital tool for the dynamic mapping of the R&I ecosystem (stakeholders, policy measures and tools, R&I performance, registry of innovative companies, sector analytics etc.).

Q4 2024 - Implementation of the Action Plan for the National Strategy.

State Aid

No state aid element.

- **Reform 2: Incentives to encourage and attract investments and human capital in R&I**

The Deputy Ministry of Research Innovation and Digital Policy (DMRID), in collaboration with the Ministry of Finance, is promoting the extension of the application of the tax scheme for investing in innovative companies to legal entities. Currently, physical persons are entitled to a 50% tax exemption for any investments they make in certified by the DMRID innovative companies (detailed information on the certification requirements are available in the DMRID website:

https://www.dmid.gov.cy/dmid/research.nsf/euprogramms_en/euprogramms_en?OpenDocument). Furthermore, providing faster depreciation of R&I expenditure in enterprises will be assessed. The measure’s extension will provide further access to finance to innovative and start-ups companies, thereby increasing R&D expenditures as a percentage of GDP as well. It will be a timely implemented measure to capitalise on the investors’ increased risk appetite due to the market’s historically low-interest rates.

Additionally, measures targeting to attract high tech companies from abroad, including Visa relief actions, as well as introducing other balancing career and family benefits, are currently under examination with the relevant authorities. The DMRID, in cooperation with the Chief Scientist and the Research and Innovation Foundation (RIF), will review and promote current incentive schemes aimed to attracting talents from third countries, like Scientific VISA scheme for researchers and their families, Start-up VISA scheme for founders of innovative enterprises and their families.

Implementation

The Ministry of Finance has requested the State Aid Commissioner to review and file a notification with the European Commission - DG Competition for extending the tax exemption incentive to corporate investors. Eligible investments of up to €150,000, per investor, under this incentive, include equity, loans, guarantees and factoring.

State Aid

The preliminary assessment undertaken by the State-aid Commissioner confirms that the measure of extending the 50% tax-exemption constitutes an eligible state-aid measure as it

includes all the parameters of the guidelines of the Commission Regulation declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty. The measure will be notified to the DG Competition within April 2021. The scheme to provide tax incentives to innovative and start-up companies will be assessed by DG Competition.

No other state aid element in this Reform.

Timelines

Q1 2022 - Extend the existing tax exemption for investing in innovative companies, to be applicable for legal entities in addition to physical persons.

Q1 2022 - Examine tax incentive related to assets and equipment depreciation for R&D.

Q3 2022 - Review and amend the current Start-up Visa scheme and Scientific Visa Scheme in order to simplify procedures and extend support mechanisms.

- **Reform 3: Introduce policies and incentives to facilitate and foster access to publicly funded research infrastructures and laboratories**

Optimal utilisation of the Republic of Cyprus investments in research infrastructures is a priority of the National R&I Strategy. In this context, a mapping exercise for RI and scientific labs was concluded in 2020. The information is publicly available on the website of DMRID (https://research-innovation.dmrid.gov.cy/dmrid/rd/rd.nsf/pagee3_el/pagee3_el?opendocument). Furthermore, following a request from the Republic of Cyprus, the Policy Support Facility (PSF) under 'Horizon 2020' has completed a study for Cyprus, focusing on the optimal use of public RI and laboratories by the business community.

An action plan for the optimum utilisation of publicly funded RI is under preparation. It includes 9 actions under 4 pillars:

Pillar 1 - Mapping and Digital Tool: the major scope of this pillar is to extend the current mapping exercise to all publicly funded RI (H2020, national schemes) and to develop a platform that will be frequently updated. It will also provide services for the visibility of RI and support collaboration with the private sector.

Pillar 2 - Regulation, legislation framework, rules and incentives: The scope of this pillar is to examine the framework for opening the RI and laboratories to other stakeholders with focus on the business sector and to examine possible incentives.

Pillar 3 - Policy measures, public funding, funding schemes.: The scope of this pillar is to design the framework for the investments and the institutional funding for RI, based on specific priorities and KPIs. Furthermore, it aims to provide incentives to promote collaboration among stakeholders. Another proposed measure is to recognise the access to RI as an eligible expense in the national funding schemes.

Pillar 4 - Other Support (most of the actions here relate to the recommendations of the PSF study): Provide consulting/mentoring services to research organisations and institutes for the development of their innovation strategies, encourage the appointment of an Innovation Director within the organisation, provide administrative support related to state aid rules, etc.

Furthermore, possible incentives and schemes embedded within the national funding programs to promote the accessibility and collaborations of research organisations with enterprises will be examined.

Timeline

Q2 2022 - Approve an action plan focusing on the optimal utilisation of Research Infrastructure and adopt actions aimed at promoting and enhancing the collaboration among Research Organisations, academia and the private sector.

Q4 2022 - Develop and launch through the DMRID website a dynamic digital tool (platform) so as to achieve and improve the circulation of relevant information to all stakeholders of the R&I ecosystem. The platform will further provide tools and services for the facilitation of a collaborative partnership arrangement between different R&I organisations and teams (public and private) in respect to publicly funded research infrastructures and laboratories.

Q1 2023 - Examine the legal and operational framework of the RPOs and promote actions aiming to facilitate and support the optimal use of RI through opening up access to other RPOs and the business sector.

Q4 2024 - Introduce measures and incentives to enhance the collaboration of RPOs with business and spin-offs, such as including in RIF grant agreement a clause for opening up funded infrastructure.

State Aid

No state aid element.

- **Investment 1: Set up and operate a central knowledge transfer office**

Challenges

There is currently limited technology transfer activity in Cyprus, both in terms of academic technology transfer and also of exploitation of research results generated by the business enterprise sector.

Academia – business collaboration and commercialisation of research are quoted (*2019 European Semester: Country Report for Cyprus*) as persisting challenges of the country's R&I ecosystem, whereas limited performance on intellectual asset indicators (*PCT Applications*) is also quoted in other European reviews (*EIS 2020*).

With regards to the technology transfer activity within public universities, the national legislation governing their operation was amended in 2018 in order to facilitate the establishment of spin-off companies, by introducing relevant provisions. Since then, a number of public universities have expressed their concerns about the effectiveness of this law, whereas the establishment of the relevant institutional framework anticipated by the law is still pending. This has reinforced uncertainty around the rules of establishing spin-offs, a fact which is limiting the business creation through knowledge transfer.

Last but not least, there is also limited technology transfer capacity within universities and research organisations, as well as a lack of fully functional technology transfer offices to undertake and support all stages of research commercialisation, whereas a limited number of commercialisation cases are dealt mostly on an ad-hoc basis.

Objectives

The creation and operation of a Knowledge Transfer Office (KTO) by the RIF and -in general- knowledge transfer facilitation and support are included in the national strategy for research and innovation. More specifically the Strategy Framework Innovate Cyprus 2019 -2023 (Pillar 4) refers to the need of establishing a central KTO to provide a cost-efficient solution for the support of technology transfer, built on the principles of acquiring a critical mass of research output and economies of scale. RIF has been assigned the responsibility to set up and operate a central KTO.

As part of this investment, RIF will acquire the services of a high calibre subject matter expert to review the as-is situation and to provide opinion and advice regarding the institutional framework on knowledge transfer in Cyprus, including relevant legislation, as well as national and institutional policies relating to the commercial exploitation of intellectual property (IP), knowledge transfer and the establishment of spin-off companies.

Implementation

RIF will acquire the services of subject matter experts and highly skilled professionals such as patent attorneys, tech transfer business development and marketing managers in order to:

- Review the institutional framework in place and meet with key stakeholder groups to discuss their views and opinions regarding the institutional framework and its effectiveness in supporting knowledge transfer, including barriers. The expert(s) will form an informed opinion and prepare recommendations on the amendment of the institutional framework, if deemed necessary.
- Design, launch and deliver the central KTO Services.

Currently there are no such skills available in the local market, therefore it is likely that the experts will be recruited from the international landscape as sub-contractors or under service provision agreements. These costs are included as part of this investment and they have been estimated based on a Business Case prepared by RIF by ISIS – OXFORD Innovation.

Research and higher education institutions will have the following incentives to engage in knowledge transfer activity:

- The central KTO will provide support services in a cost-effective way.
- RIF funding programmes will also fund actions towards knowledge transfer.
- Successful commercialisation will result in the development of new revenue streams for the institution.
- Opportunities to raise funding from private investors to further develop research outcomes.
- In the longer-run, universities and research organisations will increase their visibility and reputation for translational research.

Such incentives are expected to gradually facilitate an entrepreneurial culture within research and higher education institutions.

Over the longer term it will be important for the KTO to become partly self-financed; as a service organisation, however, it is more important to ensure that the KTO provides revenue share back to the organisations it serves. According to a proposal prepared for RIF by ISIS – OXFORD Innovation a few years ago on the operating model a central KTO should have and the associated business case, it is expected that the KTO will only start to receive revenue from successful exploitation of IP in its fourth year of operation (2026). Any revenue generated before 2026 will be going towards the universities and research organisations. From 2026 onwards, 80% of revenue from KTO managed agreements will be distributed to the University/RO concerned, while the remaining 20% will be retained by the KTO for operational costs. The revenue sharing mechanism will be ensured by contractual arrangement between the RIF and the beneficiary.

Target population

Universities, Research Organisations, Enterprises

State Aid

Based on a preliminary investigation, for support provided by the KTO with regards to non-economic activities of the research organisations (such as the knowledge transfer of results emerging from independently-conducted research), the support to be granted to the central KTO will not constitute state aid.

Any support provided by the KTO with regards to economic activities, will conform to State Aid Regulations, such as GBER Article 28 on Innovation Aid to SMEs (which can cover, among other, costs for obtaining, validating and defending patents and other intangible assets) or the De-minimis Regulation.

In order to ensure compatibility with state aid regulations, RIF will obtain all necessary approvals from the national Competent Authority (Office of the State Aid Commissioner) and if necessary, DG Competition.

Timeline

Q4 2021 - Finalise review and submit to DMRID subject matter expert opinion/recommendation

Q2 2022 - Launch of central KTO Services

Q4 2025 - At least 30 case files closed where relevant services have been provided

- **Investment 2: Innovation funding programs & funding schemes for the enhancement of growth & competitiveness of start-ups, innovative companies and SMEs**

Challenges

The European Semester 2020 country report for Cyprus notes the persisting challenge for innovative SMEs and start-ups to gain access to finance in the context of limited bank credit supply and very few alternative financing sources, which hinders their scale-up and for start-ups, access to seed capital. Furthermore, it notes that firms' low R&I absorption capacity hamper Cyprus's competitiveness.

Objectives

Provide funding through innovation programs (e.g., Fast-Track Innovation, Pre-Seed, Seed, Innovate) as a measure to improve access to funds for innovative SMEs and start-ups. The objective of these programs is to fund businesses, in many cases collaborating with research organisations, to develop innovative products and services with international orientation from concept to ready-for-market. These programs require businesses to leverage private/own funds in conjunction with public funding (provided by the RIF) therefore contributing to the overall increase of R&D investment. It is clarified that the eligible costs under RIF's Programmes do not cover general financing and other operating expenses, but only costs related to research, development and innovation activities, participation in trade fairs/marketing activities within the framework of the GBER 651/2014 regulation and the De Minimis 1407/2013 Regulation.

These funding programs will facilitate commercialisation of research results and can deliver closer-to-market outputs and outcomes, allowing for shorter-term economic effects. They lead to the creation of employment opportunities in innovative, high-tech companies and, since they are designed to fund enterprises with products/services of international orientation, they contribute to the target of increasing national high-tech exports.

Furthermore, they will promote business clustering, and can also accelerate the transition to a green economy and towards a digital era of efficiency and productivity.

Overall, the innovation funding programs will enhance the capacity of the country to rapidly transform its economy to respond to new needs and take advantage of emerging demand while they contribute significantly to the diversification and hence resilience of the national economy.

Implementation

A combination of bottom-up and top-down mission-based approach. Thematic programs being geared towards priority areas while bottom-up allow for quick response to changing trends more quickly than thematic ones.

The design of the support scheme ensures that the financed investments respect the 'do no significant harm' principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call(s) for tenders of the scheme.

Target

Start-ups, SMEs and research organisations focused on translational research.

State Aid

Funding of the RIF Programmes is carried out in accordance with the provisions of the EC Regulations for State Aid. To this end, all RIF funding programmes will be submitted for approval to the Office of the Commissioner for State Aid Control prior to their official announcement and therefore will be considered as "approved state aid schemes". Currently, all RIF's programmes comply with Regulation (EC) 651/2014 on State Aid or with Regulation 1407/2013 for De Minimis Aid.

It should be noted that the majority of RIF's programmes cover activities up to TRL8 (experimental development activities) and the funding of these activities is based on GBER - Article 25 - Aid for research and development projects. In case of funding programmes that support blended activities up to TRL9 (e.g. the launch of the commercial production, scale-up, etc) the funding of the related activities (TRL9) is based either on the De Minimis Regulation or on GBER - Article 28 - Innovation Aid for SMEs (where applicable).

The GBER Article 22- Aid for start-ups may also be utilised in order to support companies that meet the criteria of a start-up company, as defined in the GBER. In these specific cases the projects may also cover blended activities up to TRL9 and the activities of the start-ups are funded under Article 22 of GBER.

The RIF will initiate well in advance the Notification process to the EC for a funding Programme well in advance if during the design phase and initial assessment the Programme will be considered incompatible either with the GBER or the De Minimis Regulations.

Timeline

Q4 2022 - Signing of grant agreements which commit at least 50% of total budget.

Q3 2023 - At least 70 organisations supported to carry out R&I related activities.

Q2 2026 - At least 200 organisations supported to carry out R&I related activities.

- **Investment 3: Thematic research and innovation funding program on green transition**

Challenges

The Council Recommendation on the 2020 National Reform Program of Cyprus and the 2020 Stability Program of Cyprus notes that Cyprus can further improve its R&I system to support productivity growth and the required digital and environmental transition in a post pandemic world. It concludes that Cyprus should focus investment on the green and digital transition, in

particular on clean and efficient production and use of energy, waste and water management, sustainable transport, digitalisation, research and innovation. Furthermore, the Government should pursue fiscal policies aimed at achieving prudent medium-term fiscal positions.

Cyprus faces important challenges in reaching its 2030 target for greenhouse gas emissions not covered by the EU emissions trading system. These challenges need to be addressed by planning and adopting additional measures, in a timely manner, in accordance with the country's National Energy and Climate Plan. Such measures will require investments, in particular in areas like renewable energy, energy efficiency and sustainable transport, which can also help to provide a robust green stimulus. Droughts and water scarcity are major concerns and an insufficient policy response might affect the country's rural economy and tourism.

Objectives

Provide funding through thematic R&I programs of relatively high TRLs focusing on green transition. These mission-based programs aim to fund projects that will be using the latest digital technologies to provide cost-effective solutions for green transition, thereby upgrading the country's research capacity, amongst others, via Centres of Excellence for R&I, facilitate the commercialisation of research results, deliver solutions for energy and climate change as well as waste and water management, protecting and enhancing biodiversity, wildlife and environment and promoting circular economy.

Implementation

The funded projects will be multi-disciplinary and will encourage businesses, industry, government, researchers and innovators to work together to develop solutions that facilitate transition to a greener and cleaner economy. The projects will use the latest digital technologies to support green transition.

The design of the support scheme ensures that the financed investments respect the 'do no significant harm' principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call(s) for tenders of the scheme.

Target

Research Centres of Excellence, Academic Institutions, Research Organisations, Companies

State Aid

Funding of the RIF Programmes is carried out in accordance with the provisions of the EC Regulations of State Aid. To this end, all RIF Funding Programmes will be submitted for approval to the national competent authority (Office of the Commissioner for State Aid Control) prior to their official announcement and therefore will be considered as "approved state aid schemes". Currently the RIF's Programmes are carried out in accordance with the European Commission Regulation (EC) 651/2014 on State Aid as well as with the EU Regulation 1407/2013 for De Minimis Aid.

It should be noted that the majority of the RIF's Programmes cover activities up to TRL8 (experimental development activities) and the funding of these activities is based on GBER - Article 25 - Aid for research and development projects. In case of funding Programmes that support blended activities up to TRL9 (e.g. the launch of the commercial production, scale-up, etc) the funding of the related activities (TRL9) is based either on the De Minimis Regulation or on GBER - Article 28 - Innovation Aid for SMEs (where applicable).

The GBER Article 22- Aid for start-ups may also be utilised in order to support companies that meet the criteria of a start-up company, as defined in the GBER. In these specific cases the projects may

also cover blended activities up to TRL9 and the activities of the start-ups are funded under Article 22 of GBER.

The RIF will initiate well in advance the Notification process to the EC for a funding Programme if during the design phase and initial assessment the Programme will be considered incompatible either with the GBER or the De Minimis Regulations.

Timeline

Q4 2021 - Call for proposals

Q4 2022 - Signing of 10 grant agreements committing the total call of proposals budget.

Q2 2026 - At least 10 organisations supported by grants on green transition R&I activities.

- **Investment 4: Funding schemes to support organisations performing R&D activities on dual technologies, including the creation of new or upgrade of existing laboratories and the development of classified laboratories**

Challenges

Dual-use research refers to studies and technology development that can satisfy more than one goal at any given time. Any number of products that are commonly used today may have originated within the government and later integrated into civilian life. Dual use research findings and results can be shared between the civil community and the military community. The main benefit is that expensive technologies which would otherwise only serve military purposes can also be used to benefit civilian commercial and societal interests.

R&I in dual use technology and security issues in the Republic of Cyprus is still in its infancy. A limited number of companies and research organisations deal with this sector as part of their core businesses. Similarly, very few research organisations and industries deal with projects that require a certain level of classification in their laboratories or facilities.

Thus, while the knowledge, skills and the necessary infrastructure exist, businesses are not oriented towards dual use classified projects. As an increasing number of goods transitions to everyday use, this sector offers great prospects for collaborations, new opportunities and important spill-over effects on the competitiveness of the whole sector.

Objectives

The funding schemes will enable the upgrade of the R&I capabilities and capacity of Research Centres of Excellence, academic institutions, research organisations as well as companies engaged in R&D on dual use technologies. In particular, they will enable these organisations to acquire security classification certificates in order to be able to compete and participate in consortia for European funding (e.g., Horizon Europe, EDF) as well as to enhance their R&I capabilities and competitiveness in the field of dual use technologies. These schemes cover topics that include, among others, critical infrastructure protection, the fight against crime and terrorism, border security and external security, general security issues, artificial intelligence and cyber security. The proposed investment is compliant with applicable national and EU legislation and regulation (such as the Council Regulation (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items) regarding dual use technologies during the implementation of the funding scheme.

It is stressed that funding will focus on civil business only and research outcomes and infrastructure will benefit civil cases only, noting also that purely Defence related companies do not exist in Cyprus.

Moreover, the scheme will be designed in line with the EC document 'EU Funding for Dual Use - A practical guide to accessing EU funds for European Regional Authorities and SMEs'.

Implementation

In order to implement the incentive scheme, RIF will implement two funding programs. One will encourage organisations to upgrade their facilities and acquire a security classification certificate, both for physical and electronic facilities. The other program will fund R&D projects for the development of dual use technologies, including upgrade or development of new infrastructure for benefiting organisations. For the design of the funding schemes, the contracting authority will engage the relevant stakeholders before the announcement of the relevant call for proposals (Q1 2022).

The funding scheme will only be applicable for research with exclusively civil applications (EU Grants: Guidance note – Research involving dual use items: V1.1 – 07.01.2020). To address the dual use concerns it will be fully in line with EU and International law. This will be clearly stated in the rules of participation and the eligibility and selection/award criteria set for these Calls and will be checked through by an evaluation committee which will adopt a H2020/Horizon Europe-like ethics self-assessment table.

The design of the support scheme ensures that the financed investments respect the ‘do no significant harm’ principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call(s) for tenders of the scheme.

Target:

Research Centres of Excellence, Academic Institutions, Research Organisations, Enterprises.

State Aid

Funding of the RIF Programmes is carried out in accordance with the provisions of the EC Regulations of State Aid. To this end, all RIF Funding Programmes will be submitted for approval to the national competent authority (Office of the Commissioner for State Aid Control) prior to their official announcement and therefore will be considered as “approved state aid schemes”. Currently the RIF’s Programmes are carried out in accordance with the European Commission Regulation (EC) 651/2014 on State Aid as well as with the EU Regulation 1407/2013 for De Minimis Aid.

It should be noted that the majority of the RIF’s Programmes cover activities up to TRL8 (experimental development activities) and the funding of these activities is based on GBER - Article 25 - Aid for research and development projects. In case of funding Programmes that support blended activities up to TRL9 (e.g. the launch of the commercial production, scale-up, etc) the funding of the related activities (TRL9) is based either on the De Minimis Regulation or on GBER - Article 28 - Innovation Aid for SMEs (where applicable).

The GBER Article 22- Aid for start-ups may also be utilised in order to support companies that meet the criteria of a start-up company, as defined in the GBER. In these specific cases the projects may also cover blended activities up to TRL9 and the activities of the start-ups are funded under Article 22 of GBER.

The RIF will initiate well in advance the Notification process to the EC for a funding Programme if during the design phase and initial assessment the Programme will be considered incompatible either with the GBER or the De Minimis Regulations.

Timeline

Q1 2021 - Call for proposals.

Q2 2023 - Signing of grant agreements which commit 80% of total budget.

Q2 2026 - 16 enterprises supported for the development of classified Laboratories.

6.4 Cross border and multi-country projects

It is noted that this Component does not include a cross-border or multi-country project.

6.5 Green dimension of the component

Reforms and investments under this Component, are directly related with the County Specific Recommendations 2020/3 and 2019/4 to focus investment-related economic policy on sustainable transport, environment, in particular waste and water management, energy efficiency and renewable energy and R&I, taking into account territorial disparities within Cyprus. Furthermore, the investments are targeting improved access to funds for SMEs.

The preparation of the national programme for R&I for the period 2021-2027, is based on priorities identified in the national Smart Specialisation Strategy for Cyprus, namely the energy and environment sectors. Furthermore, emphasis is given on the investments in green transition with focus among others on clean and efficient production and use of renewable energy, waste and water management.

The proposed investments include funding schemes and projects that directly or indirectly address the green transition and aim to enhance and facilitate the exploitation of the relevant R&I activities. They will:

- Facilitate the commercialisation of research results to deliver closer-to-market outputs and outcomes, allowing for shorter-term economic effects in the areas of energy, climate and environment.
- Enhance the capacity of the country to rapidly respond to climate change and energy sustainability challenges hence resilience of the national economy.
- Attract foreign and Cypriot experienced researchers (previously located outside Cyprus) in order to perform research related to green transition. It will facilitate and promote collaboration, commercialisation of ideas and innovation and business innovation. It will accelerate the transition to a green economy and help the private and public sector and the development and utilisation of green friendly technologies.

Project-specific analysis:

- Investment 2, “Innovation funding programs & funding schemes for the enhancement of growth & competitiveness of start-ups, innovative companies and SMEs” includes funding specifically targeted for research and innovation in green technologies. This small part of the program is expected to be tagged as 100% climate related under code O22 “Research and innovation processes, technology transfer and cooperation between enterprises focusing on the low carbon economy, resilience and adaptation to climate change”.
- Investment 3, “Thematic research and innovation funding program on green transition” is expected to be tagged as 100% climate related under code O22 “Research and innovation processes, technology transfer and cooperation between enterprises focusing on the low carbon economy, resilience and adaptation to climate change”.

6.6 Digital dimension of the component

Reforms and investments under this Component are directly related with the County Specific Recommendation 2020/3 and 2019/4 to focus investment-related economic policy on digital solutions related to digitalisation, including digital skills, and R&I, considering territorial disparities within Cyprus. Furthermore, the investments are targeting improved access to finance for high tech SMEs and start-ups.

The preparation of the new national programme for R&I for the period 2021-2027, is based on priorities identified by the national Smart Specialisation Strategy for Cyprus, namely energy, environment and ICT sectors. Furthermore, emphasis is given on the investments in Digital Transition with focus among other on digitalisation and development of Digital Skills and solutions to the population and the society.

The proposed Investments includes funding schemes and projects that directly or indirectly address Digital dimension and aiming to enhance and facilitate the exploitation of the R&I activities.

- Facilitate the commercialisation of research results to deliver closer-to-market outputs and outcomes, allowing for shorter-term economic effects and lead to the creation of employment opportunities in innovative, high-tech companies and contribute to the target of increasing national high-tech exports.
- Promote business clustering, and support the digital technologies by firms, can accelerate transition to a digital era of efficiency and productivity.
- Enhance the capacity of the country to rapidly transform its economy to respond to new needs and take advantage of emerging demand while they contribute significantly to the digitalisation and diversification hence resilience of the national economy.
- Attract foreign and Cypriot experienced researchers (previously located outside Cyprus) in order to perform R&D related to Digital Transition. It will facilitate and promote collaboration, commercialisation of ideas and innovation and business innovation. It will accelerate the upgrade the digital skills of the private and public sector and the development and utilisation of advanced technologies.
- Develop intelligent digital tools and databases to support mapping of the ecosystem, automate partner identification searchers, enable the identification of collaboration opportunities online, as well as have access to a registry of all R&I infrastructures and innovative companies, showcasing important analytics (industry/sector/markets/funds raised, etc). Business Intelligence tools will also be deployed to support data gathering, monitoring and reporting on the progress of reforms and investments.

Project-specific analysis:

- Investment 2, “Innovation funding programs & funding schemes for the enhancement of growth & competitiveness of start-ups, innovative companies and SMEs” includes funding specifically targeted for digital related topics. This small part of the funding is expected to be tagged as 100% digital under code 010 “Digitising SMEs (including e-Commerce, e-business and networked business processes, digital innovation hubs, living labs, web entrepreneurs and ICT start-ups, B2B)”

6.7 Do no significant harm

In all measures included in this component that foresee construction works and purchase of new equipment, machinery, vehicles etc., all procurement procedures will require compliance with the DNSH principle as explained in detail in the separate DNSH assessment of the corresponding measure. This will apply both for investments in the public sector and for financial support schemes to the private sector.

See separate assessment performed on this area included as ANNEX 3 - Assessment of the compliance of the Cyprus Recovery and Resilience Plan with the ‘Do No Significant Harm’ Principle.

6.8 Milestones, targets and timeline

The milestones and targets for the investments/reforms of this Component are presented in the attached table.

6.9 Financing and costs

The cost for each milestone and target is presented in the attached table.

6.10 Loan request justification (if applicable)

Reforms/Investments under this Component will be covered by the grant element of the Plan.

Policy Axis 3 Strengthening the resilience and competitiveness of the economy

COMPONENT 3.3 Business support for Competitiveness

7. COMPONENT 3.3 Business support for Competitiveness

7.1 Description of the component

Policy area/domain: Promoting Competitiveness

Objectives:

The Cypriot economy is on the way to transition to a new era. The conditions remain challenging, and the effects of the pandemic on the economy evident. Taking this into account, the introduction of a series of measures that gives new impetus to growth is crucial. The current circumstances present a unique opportunity to encourage and implement necessary structural reforms to improve the business environment and enhance the entrepreneurial appetite and competitiveness of enterprises that will have a positive impact on the resilience and growth of the Cyprus economy.

The boosting of investment and entrepreneurial activity is recognised as one of the main drivers of job creation and acceleration of economic activity, while the development of business activity based on knowledge, technological upgrading, digitalisation and innovation strengthens the competitiveness of all enterprises in the country. Enterprises must be innovative, adaptive to new technologies and trends to effectively ensure their successful entry into international markets. At the same time, procedures for licensing need to be streamlined and become more transparent, both for strategic and other projects. Easy access to adequate finance is also a fundamental precondition for realising the above, especially for start-ups and innovative companies.

This Component includes the implementation of a series of reforms and targeted investments aiming to tackle the multifaceted challenges that the Cyprus business environment faces, and enhance its competitiveness, productivity and resilience to external factors and international developments. The measures under this Component are synergizing with other components, especially the ones under Priority Axis 3 for strengthening the resilience and competitiveness of the economy.

The proposed reforms and investments champion the “Modernise” flagship through the implementation of significant digitalisation projects such as the Integrated Information System for the Registrar of Companies and Official Receiver, while key investments like the Digital Upgrade Scheme and the Equity Fund are included to support SMEs in building the required capacity for the transition to digitalisation. “Power up” flagship is also indirectly promoted through the opportunities provided to SMEs to access financing and consultancy services covering, among others, energy efficiency measures.

Reforms and investments:

Towards a simplified, investment friendly business environment

- Reform 1: Facilitation of Strategic investments
- Reform 2: Enhancing Fast-Track Business Activation Mechanism
- Reform 3: Modernisation of the Companies Law
- Investment 1: Integrated Information system for the Registrar of Companies and Official Receiver

Supporting SMES competitiveness and enhancing access to finance

- Reform 4: Design and establish a National Promotional Agency
- Reform 5: Strategic Investor of the Cyprus Stock Exchange

- Reform 6: Incentives to promote mergers & acquisitions
- Investment 2: Creation of a Regulatory Sandbox to enable FinTech
- Investment 3: Consulting services for SMEs
- Investment 4: Scheme for the digital upgrade of enterprises
- Investment 5: Support extroversion and openness of Cyprus firms to international trade
- Investment 6: State funded equity fund
- Investment 7: Loan subsidisation for new business loans

Total estimated budget to be funded through the RRP: €78,4 mln

7.2 Main challenges and objectives

Main challenges

Although Cyprus has improved regarding the attractiveness of its business environment, a lot of work still needs to be done. The current crisis has highlighted the importance of increasing productivity for the economy to become more competitive and improve its growth prospects. Evidence shows that increases in productivity is associated with low inflationary pressures, which increase competitiveness. High productivity reduces average costs and, in the long term reduces product prices, therefore making the economy more competitive. Despite some improvements since 2013, persistent low productivity is affecting the country's competitiveness. According to Eurostat data, real labour productivity per person employed has remained broadly stable over the last four years, when compared to the EU average. Looking into real labour productivity per hour worked (which eliminates differences in the full-time/part-time composition of the workforce), this also remains well below the EU levels (i.e., level of GDP per hour worked is 25% lower than the EU average). This reflects a low level of innovation and digitalisation and limited capacity building within enterprises. An important challenge that needs to be addressed, which also affects productivity and competitiveness, is enterprises' small size. According to the European Commission's 2019 Small Business Act (SBA) fact sheet for Cyprus, in 2017-2018, SME value added stood at 10.0%, still 3.8% lower than its pre-crisis level. Moreover, COVID-19 pandemic highlighted the need to diversify the economy away from the services sector, support the primary and secondary sectors as well as start-ups and innovation.

Another major challenge is the improvement of the business environment, cutting red tape and simplifying the whole licensing process requested for an investment. In the framework of its revised Action Plan for Better Regulation in Cyprus (2019), the Government places particular emphasis on identifying, analysing and simplifying the most complex, time-consuming and outdated laws and procedures applicable in key areas of the economy, which affect the operation and development of business activity. Meanwhile, the business environment in Cyprus has a lot of potential for boosting investment in the country. In this context, measures such as the design and operation of a business online platform that will provide all necessary and supportive information and services is essential for enterprises to start and/or develop their business, are being promoted.

A main challenge in the business environment, is the lack of access to funding, which would allow both the establishment of new businesses and the expansion of existing units by making new investments. In Cyprus, access to finance is even more difficult, especially for start-ups and innovative companies. The problem is well documented by a 2017 EIB report identifying an annual financing gap for small-size enterprises of €115-175m and an annual equity financing gap of €35-40m. The limited availability of alternative mechanisms of finance, especially for SMEs, acts also as a barrier to growth, as several projects that could contribute to economic growth are being delayed or have been cancelled due to lack of funding. In this framework, the Government

needs to proceed with new initiatives, i.e. to launch and promote new financing instruments and design in partnership with the private sector and new alternative financing mechanisms to support high added-value investments.

The extroversion of business activities and access to foreign markets remains of paramount importance for enhancing the business environment and the economy. This is a difficult task, especially for small businesses, since they do not have the necessary capacity and know-how to enter new markets, identify and exploit new business opportunities via international networks.

Objectives

This Component's main objective is to support entrepreneurs and enterprises and improve their competitiveness and contribution to the growth of the economy by providing the right tools to do so.

At the same time, this Component aims to improve the regulatory framework regarding investment and entrepreneurial activity and enhance SMEs productivity, mainly through digitalisation. An additional objective is to help build a closer public-private partnership as a result of the active participation of businesses and private capital in the proposed institutions, financial instruments and schemes.

Reforms and investments included in the thematic area *"Simplified and Investment friendly Business Environment"*, include a series of actions aiming to create an integrated framework regarding the procedures related to Cyprus' investment and entrepreneurial activity. Reforms include the setting up of a business electronic platform which will act as an electronic one stop shop for every local or foreign entrepreneur or investor that would like to invest and/or operate a business in Cyprus. The platform will provide all the information needed on how to start and operate a company in Cyprus, while it could also act as the first point of contact for the investors that would like to use the law for the facilitation of strategic investments once this is adopted. Another key reform is the modernisation of the Companies Law - to address the companies' current needs, including the improvement of the insolvency framework. The reforms in this thematic area are supported by an important e-Government project, the integrated information system for the Registrar of Companies and Official Receiver. The horizontal reforms included are closely linked to the Long-Term Strategy. It is imperative for the new growth model proposed to have an attractive business environment.

Reforms and investments included in the thematic area of *"Support SMEs competitiveness and enhancing access to finance"* acknowledge and address the need of Cypriot businesses to be innovative and effective, to ensure their successful entry into the markets, and the need of existing businesses to modernise and increase their efficiency in the face of intense global competition. This will ultimately lead to an increase in the economy's overall productivity, enhancing its competitiveness and resilience to international developments and other external factors. The aim is to implement measures, including capacity building through the provision of consulting and mentoring, the digital upgrade of the enterprises and the provision of incentives aiming to the productivity improvement, as well as incentives for the increase of the size of companies. This thematic area also includes a scheme to support the extroversion and the openness of Cypriot firms to international trade and facilitate exports.

Furthermore, recognizing the problem of access to finance and with the aim to especially support actions to enhance research and innovation, covered under *Component 3.2: Enhancing Research and Innovation*, the Government's intention is to facilitate and promote the creation of alternative financing mechanisms such as equity funding, venture capitals and business angels, in order to meet the financial needs of innovative enterprises and especially start-ups. Towards this direction, the Government is designing the setup of an equity fund with the active participation of private investors' networks, as well as the setting up of a National Promotional Agency, which will manage all state financial instruments. The proposed reforms extend also to enhancing the

capacity of the regulators and legacy institutions such as the Cyprus Securities and Exchanges Commission through the formation of a regulatory sandbox and Cyprus Stock Exchange via its privatisation and digitalisation.

It should be noted that access to finance is closely linked with the actions to be implemented under Component 3.5 (Safeguarding Fiscal and Financial Stability).

CSRs addressed:

Reforms /Investments	Year / CSR Numbers Recitals	Justification
Reform 1: Facilitation of strategic investments	CSR 4 2019, Recital 17	The reform aims at stimulating investment activity in the country through clear rules and mechanisms.
Reform 2: Enhancing the Fast-Track Business Activation Mechanism	CSR 4 2019, Recital 18	Setting up of a business online platform which will act as a one stop shop for every local or foreign entrepreneur or investor that would like to invest and/or operate a business in Cyprus. Moreover, the Fast-Track Business Activation Mechanism is expected to further attract foreign business to Cyprus as well as to provide fast and efficient services to foreign businesses wishing to establish a presence in Cyprus.
Reform 3: Modernisation of the Companies Law	CSR 5 2019, Recital 19	Modernising the Cyprus Companies Law will increase the attractiveness of the Cyprus business environment.
Investment 1: Integrated Information System for the Registrar of Companies	CSR 3 2020, Recital 24 CSR 4 2019, Recital 18	To drive the digital transformation of the Companies Section and Intellectual & Industrial Property Section of the DRCOR to become established as frontrunners in digital presence, online capabilities and outstanding customer service delivered by efficient internal processes and supported by flexible IT systems.
Reform 4: Design and establish a National Promotional Agency	CSR 3 2020, Recital 22 CSR 4 2019, Recital 18	Improve access to finance, especially for SMEs.
Reform 5: Strategic investor of the Cyprus Stock Exchange	CSR 3 2020, Recital 22 CSR 4 2019, Recital 18	The privatisation and the upgrade of the services provided by the Cyprus Stock Exchange will provide better access to equity financing.

Reform 6: Incentives to promote mergers & acquisitions	CSR 3 2020, Recitals 22 and 25 CSR 4 2019, Recitals 16 and 18	The size increase of Cyprus companies, through mergers and acquisitions, is expected to lead to economies of scale, allow them better access to finance as well as enhance their capacity to innovate and compete.
Investment 2: Creation of a Regulatory Sandbox to enable FinTech	CSR 3 2020, Recitals 22 and 25 CSR 4 2019, Recitals 16 and 18	The regulatory sandbox is expected to facilitate innovation in the Financial Technology (FinTech) area, including alternative finance platforms and solutions.
Investment 3: Consulting services for SMEs	CSR 3 2020, Recital 22 CSR 4 2019, Recital 18	Promote the development of SMEs in Cyprus through tailor made advisory services and other non-financial support tools.
Investment 4: Scheme for the digital upgrade of enterprises	CSR 3 2020, Recital 22 CSR 4 2019, Recital 18	Enhance the integration of digital technology in SMEs to enhance their competitiveness.
Investment 5: Support extroversion and openness of Cyprus firms to international trade	CSR 3 2020, Recital 22 CSR 4 2019, Recital 18	Provide funding for activities carried out by new and/or existing Cypriot firms with export orientation. Improve access to finance for small and medium-sized enterprises and the efficiency and digitalisation of the public sector.
Investment 6: State funded equity fund	CSR 3 2020, Recital 22 CSR 4 2019, Recital 18	Support the efforts of the Government to enhance access to alternative sources of finance.
Investment 7: Loan subsidisation for new business loans	CSR 3 2020, Recital 22 CSR 4 2019, Recital 18	Interest rate subsidies for business loans to enterprises enhances the efforts of the Government to support the economy during the current outburst of COVID-19 and support businesses in their efforts to outlast this unprecedented crisis and grow.

7.3 Description of reforms and investments

- **Reform 1: Facilitation of Strategic investments**

Challenges

According to the Council Recommendation on the 2019 National Reform Programme of Cyprus and delivering a Council opinion on the 2019 Stability Programme of Cyprus, “the administrative burden is high, especially for initiating strategic investments”. Obtaining necessary permits and licenses to invest in Cyprus remains cumbersome. There is scope to significantly simplify the

procedures for obtaining permits for strategic investments, and the relevant legislation is still pending.

Objectives

A conducive investment climate is essential for an attractive business environment. It plays a crucial role in attracting and retaining domestic and foreign investments. This, in turn, ushers in an economic transformation by boosting the private sector's development and competitiveness.

The overall objective is to develop a new system supporting strategic investments. The reform aims at stimulating investment activity in the country through streamlined rules and mechanisms.

The definition of strategic investment is currently being finalised, following a consultation period, but the preliminary definition refers to:

- investment in strategic sectors (including Health and Social Care, Education, Culture, Sport, Environment, Industry, Tourism, Energy, Research, Development and Innovation),
- contributes to the development of the economy, and

Investments in strategic areas are expected to have a long-term macroeconomic impact, diversifying the development model of the Cypriot economy, making it resilient in global challenges and crisis as well as more competitive in the regional level.

Implementation

Ministry of Interior (Department of Town Planning and Housing)

The proposed legislation (Bill) is currently under discussion at the relevant Parliamentary Committee in House of Parliament. The Bill envisages creating a new Sector at the Department of Town Planning and Housing that will facilitate the licensing of strategic investments. Further steps need to be undertaken for it to be operational upon its enactment. The project aims to prepare the operational guidelines, process flows, and other ISO 9001:2015 requirements for mainstreaming the process. It will draft MoUs with other Departments relevant to parts of the process in order to ensure the fast-track mechanism's feasibility. Moreover, it will include training of employees in the procedures to be introduced.

A digital platform will be set up that will enable applying, studying and issuing Planning and Building Permits digitally. It will have two parts: an application and application management tool and a GIS system. The Platform will be a module of the information technology system of the Department of Town Planning and Housing which is included under *Component 3.4, investment titled "enhancing e-system for issuing building permits"*. The Platform will enable the interested parties to apply remotely.

Target population

Investors, for the faster implementation of their projects. This will have a trickledown effect on local communities due to job creation opportunities. It will also impact planning authorities as it will remove the burden of the strategic investment applications from their workload.

Stakeholders' involvement

Besides the administrations/ bodies implementing the reform, other stakeholders are involved as per their interest. A preliminary stakeholder analysis identifies the following interested bodies: Ministry of Finance, Ministry of Energy, Commerce and Industry and other Ministries and Deputy Ministries, Union of Cyprus Communities, Union of Cyprus Municipalities, Cyprus Technical Chamber, Cyprus Chamber of Commerce and Industry, CIPA, etc. The stakeholders are involved through public consultation and participation processes.

Impediments

Possible impediments include the delay voting the Bill in the House of Representatives.

State Aid

Not applicable

Timeline

Q1 2022 - Enactment of legislation.

Q2 2023 – Start accepting applications.

• **Reform 2: Enhancing the Fast-Track Business Activation Mechanism**

Challenges and objectives

The Government of Cyprus adopted in 2015 the Policy Statement for the Enhancement of the Entrepreneurial Activity in Cyprus and in 2019 the New Industrial Policy. Both policy papers are accompanied with action plans for the fulfilment of their goals and both are recognizing the need for the further red tape reduction, the adoption of only once principle and the need to further facilitate the investment procedure. In this context, the simplification of the procedures, the digitisation of the governmental services and the operation of a Business Support Centre, that will provide all necessary and supportive information and services, are necessary. Towards this, the setting up of: (a) a fast-track business activation mechanism and (b) a business online platform, are promoted

a) A Fast-Track Business Activation mechanism was approved by the Council of Ministers on 3 September 2020, aiming to attract foreign business to Cyprus and provide fast and efficient services to foreign companies wishing to establish a presence in Cyprus. Companies interested in the Fast-Track Business Activation mechanism should meet specific criteria and positively contribute to the country's economic growth. The eligibility criteria are:

- Companies should have a physical presence in Cyprus including establishment/operation of independent offices that are separate from any private residence.
- Existing companies should have a minimum turnover of €500.000 per year for 3 out of the last 5 years.
- New companies should provide a reliable 5-year business plan illustrating growth potential.

b) Establish a Business Online Platform: Upgrade the Business in Cyprus website, which at the moment provides information on how to set up a company in Cyprus, as well as information and guidance regarding licensing procedure, taxation, employment and other helpful information, in order to provide interested companies or individuals the opportunity to submit online applications for obtaining licenses as for operating a business in Cyprus.

Implementation

The Fast-track Business Activation Mechanism is operated by the Ministry of Energy, Commerce and Industry and includes the following services: (a) Provision of services for the establishment of a company, (b) Guidance for establishment and operation of companies in Cyprus (c) Provision of information for all the necessary permits required by the company to start operations, (d) Facilitation for the issuance of residence and employment permits in Cyprus for third-country nationals.

Following the smooth operation of the Mechanism, the Ministry plans to upgrade the services provided by including the establishment of an interactive platform, where the investor will be able to track his/her application but also the competent authorities will be able to interact, exchange

documents and process the application. The platform will also provide the channel of exchanging questions and answers with possible investors or requesting a web-meeting.

Target population

Existing and new companies, foreign and local, wishing to operate business activities in Cyprus.

State Aid

Not applicable

Timeline

Q4 2022 - Establishment of a platform where the investor can track their application and the competent authorities will be able to interact between them.

Q2 2024 - Completion of assessment of twenty-five applications through the new platform.

Q4 2025 - Completion of assessment of fifty applications through the new platform.

- **Reform 3: Modernisation of Companies Law**

Challenges

The modernisation of the Cyprus Companies Law is considered a priority. The Cyprus Legal System is largely based on the English model, i.e. on Common Law (and Equity). The Companies Law was enacted in 1951 and has its origins in the English Companies Act of 1948. Over time, various amendments have taken place, on an ad hoc basis, to reflect the nature of the Cyprus economy and harmonise with EU Law (the *acquis Communautaire*). Today in Europe, there are considerable substantial and procedural differences between the laws, regulations and administrative provisions governing companies' law in the Member States.

Objectives

The overall objective of the project is to fundamentally restructure the Companies Law. Modernising the Cyprus Companies Law, using best practices from other common law jurisdictions would help to provide a foundation of knowledge and clarity in the form of case law and literature, which would help to assist in interpreting and applying the law in practice. This transparency would help with compliance with the law and would make the task of law practitioners easier.

Considering the above, there is a clear need for a modern Companies Act, together with accompanying Companies Rules, which consolidate and reform the law and address the commerce's needs using best practices applied in the field in other jurisdictions within Europe. Following a Council of Ministers Decision, a Steering Committee, chaired by the Ministry of Finance and comprising representatives of both the public and the private sector, has been assigned to this project, with the responsibility to organise and coordinate the successful implementation of the aforementioned modernisation. To this end, the Ministry of Finance, in close cooperation with the Ministry of Energy, Commerce and Industry, will seek to appoint a team of legal experts to undertake the project for providing advisory and drafting services aimed at adopting a new Cyprus Companies Law and Regulations ("New Law").

A significant part of this project is dedicated to reviewing the insolvency proceedings under the Companies Law, which are Liquidations, Receivership and Examinership. The aim is to assess current insolvency procedures pursuant by the Companies' law, considering that the competent authority for these procedures is different from the rest derive, from Companies' Law, as a whole. To that end, it will be assessed whether any amendments regarding Liquidations and Examinership will be better to be part of the Companies' Law or to be drafted as a separated Insolvency Law for legal entities.

An SME test will be undertaken during the preparation of the bill.

Implementation

Ministry of Finance in cooperation with Ministry of Energy, Commerce and Trade.

Impediments

Resistance to change from various stakeholders, procedure for enactment of the law.

Stakeholder involvement

The steering committee of the project includes representatives from Ministry of Finance, Ministry of Energy, Commerce and Industry, Law Office, Law Commissioner, Cyprus Bar Association and The Institute of Certified Public Accountants of Cyprus.

State Aid

Not applicable

Target population

Companies registered in Cyprus

Timeline

Q1 2022 - Signing of contract with the contractor to prepare the legislative framework.

Q3 2024 - Implementation of the contract's scope completion.

Q4 2025 - Enactment of legislation by the House of Representatives

- **Investment 1: Integrated Information system for the Registrar of Companies and Official Receiver**

Challenges and objectives

The overall objective of the investment is the design, development, implementation, maintenance and operation of an Integrated Registry Platform solution supporting the processes and services of the Companies Section and Intellectual & Industrial Property Section of the DRCOR, in such a way to drive the digital transformation of the two aforementioned sections to become established as frontrunners in digital presence, online capabilities and outstanding customer service delivered by efficient internal processes and supported by flexible IT systems. The project will be accompanied by a concurrent data cleansing project of the customers' IDs in the database of the core systems of the DRCOR.

The technical and functional specifications of the solution are primarily based on the results of the business process reengineering aimed at the streamlining of the procedures and the provision of efficient and faster services, undertaken by the Project Team under the Ministry of Energy, Industry and Commerce (MECI), and is part of the overall reform programme of the DRCOR.

The solution is expected to have an impact on the efficiency of performing all relevant activities performed by the Companies and Intellectual & Industrial Property sections. More precisely, the implementation of the system aims to replace the existing IT environment with the aim of covering and automating the desired end-to-end processes and services of the Companies and Intellectual & Industrial Property sections in line with the legislation applicable at the time of implementation based on the maximum possible capabilities of configurable parameters.

At the same time, it aims at increasing staff productivity through automation of end-to-end business processes and enhance service delivery through efficient and effective procedures and provision of services via online channels for assistance, information and clarity. Moreover, all

changes in the relevant legal framework of both Companies and IP sections at the time of implementation of the system (including the requirement for computerisation of the Intellectual Property functions under the new IP Legislation, as well as the requirement under the new trademarks legislation) will be considered and accommodated as required. The development of the platform will be outsourced, and the cost is once-off.

Implementation

Department of Information Technology Services (DITS) and the Ministry of Energy, Industry and Commerce on behalf of the Department of Registrar of Companies.

The system will be implemented by contracting out services from a private entity using public procurement open procedures.

Target population

All companies registered in Cyprus and the associated stakeholders such as law firms, accountants, investors etc.

Stakeholder Involvement

The stakeholder's involvement (as per functionality clusters) - including key users (law firms, accountants, investors etc.), Government organisations, financial institutions and other relevant European and world-wide agencies relevant to the scope of the DRCOR - is expected to be high, especially during the initial stages of the project for the validation of user requirements as well as during the system's testing and acceptance and during training phase which will be stakeholder specific.

Risks/Impediments

- Delays in the execution of the intermediate project phases or the whole project,
- Risk of project delay due to any necessary changes in local legislation to support the implementation,
- Production of lower-level quality deliverables than the expected,
- Problems in the integration of the integrated registry platform with third party systems,
- Interaction with current system contractors for data migration and possible parallel running until full takeover by the new integrated registry platform.

State Aid

Not applicable

Timeline

Q1 2022 - Signature of the contract with contractor.

Q1 2023 - Installation of system hardware & software and networking completed.

Q4 2025 - Training of personnel on the new system completed

- **Reform 4: Design and establish a National Promotional Agency**

Challenges

Following the 2012-2013 credit crisis, access to finance has become increasingly challenging for SMEs. Banks have traditionally been the main source of credit provision for SMEs but their capacity and appetite to provide new loans and other financing products, especially non loan ones, as well as microfinance, is limited by the substantial percentage of NPLs in their portfolio.

This appetite decreases even more for risky enterprises, like start-ups, innovative companies etc. A study regarding the gap in the market for financing, undertaken in 2017 by EIB, on behalf of the Cyprus Government, identified an annual financing gap for small-size enterprises of €115-175m and an annual equity financing gap of €35-40m.

Objectives

The need to improve access to finance for SMEs has been identified by the Ministry of Finance (MOF), and it enjoys significant political support, evident by the recent initiative for the setup of the Equity Fund (see Investment 6).

Currently, there are several state financial instruments for SMEs dispersed among different departments across the Government. To this effect, it is considered instrumental to create a dedicated agency, in the form of a National Promotional Agency (NPA), to support development and businesses by providing financial instruments such as loans, guarantees and equity financing in a coordinated way, ensuring expertise and operational synergies. The creation of an entity with these characteristics was suggested in 2019 by PWC (Luxembourg), as part of the technical support the Cypriot Government received by SRSS, to optimise the management of the available financing tools.

According to this study, a new entity, under the Government's supervision, in the form of a public investment management institution, could also play the role of implementing partner for the European Commission in Cyprus under InvestEU and maximise the programs' benefits which it has been recently upgraded to address the COVID-19 pandemic's impact, as well as EIB programmes.

Implementation

A technical assistance project (TSI) has been approved for financing and discussions are under way with DG reform to finalise the terms of reference. Based on our proposal, the contractor shall draft an ex-ante assessment analysis report covering SMEs' access to finance market failures in all sectors of the economy with a focus on green/circular economy, digital enablement and alternative financing. The report will be used by the Cypriot authorities to define the scope of intervention of the proposed National Promotion Agency (NPA).

After the final selection of the scope of activity of the new NPA, whether it will be the transformation of an existing organisation or the setting up of a new one by the CY authorities, the contractor shall draft a proposal for the legal and organisational set-up. The proposed structure should allow a high transparency of NPA's operations, autonomy and should implement control mechanisms in compliance with regulatory authorities' requirements. If the transformation of an existing organisation, like the Housing Finance Corporation is selected as the best option to go forward, the report should also consider the current legal and organisational structure and resources of the Housing Finance Corporation. It is clarified that key parts of the work required to transform the HFC to NPA, if this will be the preferred option, will be undertaken by the Cyprus Government and they won't be part of the technical assistance project.

It should also be clarified that the Agency will not operate as a bank so will not need to be capitalised a priori. Financing will come from various sources, like EIB and the government. The financing plan will be further elaborated through the technical assistance.

A special interdepartmental task force will be set up in the Ministry of Finance. The Task force will serve as the contact point for the TSI contractor and provide all the required information to both the contractor and the SRSS contact point to the effect of delivering the project on time.

A steering committee will also be formed with the participation of representatives of the Ministry of Finance and the Ministry of Energy, Commerce and Industry.

Impediments

Possible lack of required political support.

Stakeholder involvement

(a) Ministry of Energy, Commerce and Industry and (b) Housing Finance Corporation.

State Aid

A pre-notification or notification to DG Comp, if required, will be part of the work undertaken under the TSI.

Target population

SMEs seeking financing, with a bias on companies seeking to finance their Green/circular economy activities and digitalisation.

Timeline

Q3 2021 - Start technical assistance project.

Q2 2023 – Approval by Council of Ministers of a Roadmap for the creation and establishment of NPA.

Q1 2024 – Bill approval by the House of Representatives.

Q3 2025 – National Promotional Agency beginning of operations.

• **Reform 5: Strategic investor of the Cyprus Stock Exchange**

The Council of Ministers took a decision to privatise the CSE, following a study conducted by Consultants that the Government appointed for presenting/examining several strategic options for the transformation and development of the CSE. Based on the above study and after consultation with the Board of Directors of the Cyprus Stock Exchange (CSE), the strategic choice to privatise the CSE was deemed as the most feasible and beneficial for the organisation and the economy in general.

Some important factors that were taken into consideration were:

- The existence of a stronger Market will provide an alternative source of financing to companies, enabling them to grow and attract new investors.
- Most, if not all of the European Stock Exchanges and Central Depositories, operate within the sphere of private Law as corporate entities and not as public/ Governmental entities.
- Through privatisation, the CSE can become more competitive, flexible and even better developed.
- Finally, with the privatisation and the establishment of private law companies, the two main functions of the CSE, i.e., as an operator of a Regulated Market and an MTF under MIFID and as the operator of the Cyprus Central Securities Depository and Registry, will operate under two distinct companies, in line with EU Regulations and practice

Implementation

Through a Tender Process, underway at present, the CSE seeks to appoint a reputable independent advisor or consortium thereof, with extensive relevant expertise to find the most suitable strategic investor for the CSE.

The privatisation phase of the Contract will be concluded upon achieving financial closing of the Transaction and after the signing and conclusion of an agreement with a strategic partner/ investor (or strategic partners/ investors or consortium of strategic partners/ investors), the

fulfilment by both parties to the agreement of all conditions precedent for its financial closing, including the final approval by the House of Representatives of the Republic of Cyprus.

Under this feasible strategic option, the Government will proceed with full privatisation of the CSE to a private investor(s).

Impediments

Strategic Investor:

- Risk of not finding an interested suitable party.
- Risk of delay of the process (i.e., Ministry, Legal Service of the Government, Council of Ministers, House of Representatives).
- Risk of non-approval of the required legislative changes required by the House of Representatives.

Stakeholder Involvement

Regarding the project of Strategic Investor, the Advisor should provide periodic updates for the project and will manage, coordinate and communicate with to the Government, Employees' Trade Unions, Listed Companies, Members of CSE, Custodians, and Creditors (stakeholders) for the design, implementation and execution of the project.

State Aid

The proposed reform complies with State-aid rules. Privatisations, in general, do not entail State-aid, provided that the state holds a competitive tender that is open to all comers, transparent, the assets are sold to the highest bidder and bidders are given enough time and information to carry out a proper valuation of the assets as the basis for their bid.

Target population

Stock Market participants/ Listed Issuers/ Investors/ General public.

Timeline

Q4 2024 - Selection of the Strategic Investor.

- **Reform 6: Incentives to promote mergers & acquisitions**

Challenges

Mainly due to the economy's limited market size, the size of Cyprus enterprises tends to be smaller, compared to other EU countries. Indicatively, Cyprus ranks well below the EU-28 average in the "persons employed in large enterprises" and "value added" metrics for large enterprises. Smaller-sized enterprises, including medium-sized enterprises in the lower end of the definition, are less likely to secure adequate financing, innovate, efficiently strategise and develop export activities. They are also more likely to evade tax and not comply with the labour legislation. Up until now, the Government has never introduced a framework to incentivise to a large-scale mergers and acquisitions, targeting in the increase of the size of the enterprises, especially the ones with exporting activities and potential.

Objectives

An increase in the size of Cyprus enterprises will enable them, among others, to increase their productivity and achieve economies of scale. Given Cyprus' limited market size, the formation of large enterprises and medium-sized enterprises in the higher end of the definition, is expected to be particularly beneficial to export-oriented enterprises.

The proposed reform consists of targeted incentives to promote the merging of enterprises in order to scale-up and become more competitive.

Implementation

The Ministry of Finance will co-ordinate a group of stakeholders to discuss possible incentives, including inter alia subsidy support and tax breaks.

Target population

Small and medium size enterprises.

State Aid

Any measures prepared to be included in this project will be discussed with the state-aid Commissioner to ensure their eligibility.

• **Investment 2: Creation of a Regulatory Sandbox to enable FinTech**

Challenges

Entities innovating in the area of finance might encounter difficulties in launching new products/services or secure funding due to uncertainties in relation to the conformity of their products with the regulatory perimeter. In addition to this, regulators might be reluctant towards such emerging product or services due to investors' protection concerns.

In order to allow FinTech, start-ups, and other innovative companies to expand their offering in new products or services, regulators are establishing a "testing ground" that allows FinTech start-ups and other innovators to conduct live experiments in a controlled environment under their supervision.

A regulatory sandbox is a widely recognised approach allowing time-bound testing of innovations under the regulator's supervision on new financial products, technologies, and business models under a set of rules and supervisory requirements with appropriate safeguards. It is a conducive and contained space where existing and new players can develop and experiment with innovations, where permissible under the EU and national Law, under fewer restrictions or outside the existing regulatory framework. It also facilitates the development of an ongoing dialogue between market participants and the regulator required to ensure that regulatory actions strike the appropriate balance between facilitating innovation and mitigating risks.

Objectives

The project's overall objective is to develop a suitable and attractive regulatory regime on fintech and innovative technologies and strike a balance between the seamless deployment of innovative products or services and ensuring investors protection. This will in turn, make Cyprus a popular jurisdiction for the establishment of FinTech and start-up companies engaged in innovative products, giving a further incentive to successful international FinTech enterprises to set their international base in Cyprus and ensure investor protection and enhance investors' confidence in the Cypriot financial market. We seek to secure external expertise in designing, launching and operating the Regulatory Sandbox during the first year of its operations in line with the action plan provided.

The first regulatory sandbox was launched in 2015 in the UK, and there are now over 50 countries that have adopted sandboxes to foster innovation in the financial sector by allowing disruptive firms to develop novel products and services and access capital whilst operating in a controlled "environment" that monitors challenges for the financial stability and consumer protection.

The positive effect of this development includes: (a) the expansion of Cyprus in the fintech space, (b) the relocation of foreign expertise into Cyprus, (c) the creation of hundreds of job vacancies for the Cyprus workforce and (d) greater financial inclusion by consumers.

Implementation

Cyprus Securities and Exchange Commission. The overall administrative capacity of CySEC and, therefore, its ability to implement the project will be upgraded by a significant number of new employees who are expected to join CySEC in the following months.

State Aid

Not applicable

Target population

Fintech, incumbents, start-ups other innovation companies intending to expand their operations in innovative products in Cyprus.

Timeline

Q3 2022 - Selection of the external consultant for designing and operating the Regulatory Sandbox

Q2 2023 – Launch of the Regulatory Sandbox

Q3 2024 – One-year Operation Report release

• **Investment 3: Consulting Scheme for SMEs**

The consulting scheme aims to promote Small and Medium Enterprises (SMEs) development in Cyprus through tailor-made advisory services and other non-financial support tools. Access to know-how (advisory services) is crucial to help SMEs grow and develop. The program will build on the EBRD Advice for Small Businesses (ASB) program implemented in 2017-2020 and incorporate the related tools and instruments that are believed to be the most helpful in addressing the needs of Cypriot SMEs. The program aims to promote the development of a competitive SME sector in Cyprus. The specific objectives of the program are to provide expert assistance, business advice, targeted training to SMEs and business matching activities, regardless of the sector they are operating in, to achieve the following results:

- Strengthen SMEs' competitiveness and support their business growth in the face of increased competition, resulting in increased productivity and sales, modernised production line/technology, upgraded product ranges and production processes.
- Increase use and improvement of the quality of local business advisory services, which will build a sustainable advisory industry for the long term and continued improvement of Cypriot SMEs' competitiveness.
- Promote inclusion by targeting groups that are underrepresented in the local SME sector, such as social enterprises.

Implementation

The MECI will set up a list with accredited consultants. The accreditation of eligible consultants will be based on specific criteria. Based on the eligible SME's needs, a number of consultants will be suggested to the SME as most relevant to the particular project's needs. The SME owner has a period of interaction or exchange of information with the consultants and selects the consultant of his preference. Once a consultant has completed an advisory project, he/she can be engaged on other projects within areas for which the consultant has been prequalified.

The design of the support scheme ensures that the financed investments respect the 'do no significant harm' principle, as explained in detail in the separate DNSH assessment of this

measure. This consideration will be explicitly included in the relevant call(s) for tenders of the scheme.

Target population

Small and medium-sized enterprises.

State Aid

The scheme is a public support measure and will amount to State-aid. The scheme will be operated under the de minimis regulation.

Timeline

Actions & Timeline

Q1 2022 - Consultant's accreditation.

Q3 2022 - Call for proposals.

Q1 2024 - At least 130 project agreements signed.

Q4 2025 - At least 375 project agreements signed.

• **Investment 4: Scheme for the digital upgrade of enterprises**

According to the latest DESI Index, published by the European Commission, Cyprus ranks lower than the EU average in integrating digital technology in businesses. As the report states, digital technologies enable enterprises to gain a competitive advantage, improve their services and their productivity and expand their markets.

Given the importance of digital technology integration, which has become especially topical during the pandemic, the grant scheme's main objective is to enhance the integration of digital technology in existing and future SMEs established in Cyprus. More specifically:

- Enhance the digital identity of the businesses,
- Increase the amount of small and medium-size enterprises that use information and communication technologies, including the e-commerce sector,
- Promote digital entrepreneurship.

Implementation

The Scheme for the digital upgrade of enterprises refers to grants given as a percentage (e.g.,50%-60%) on the entire eligible investment. Eligible expenditure will include, among others, hardware, software (e.g., ERP, CRM), and investments in E-commerce. The Ministry will assign the assessment of proposals to external evaluators and the assignment of payments/ verifications to accounting firms. The design of the support scheme ensures that the financed investments respect the 'do no significant harm' principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call(s) for tenders of the scheme.

Target population

Small and medium-sized enterprises

State Aid

The Scheme will be implemented under Regulation (EC) No. 1407/2013 of the Commission of 18 December 2013 based on Articles 107 and 108 of the Treaty on the European Union's Functioning to de minimis aid.

Timeline

Q2 2023 - Issue call for proposals.

Q4 2024 - At least 100 SMEs supported.

Q2 2026 - Full Reimbursement to all enterprises / final payments

- **Investment 5: Support extroversion and openness of Cyprus firms to international trade**

Challenges

The global economy offers enterprises access to new technologies, skills, markets and financial sources - hence, better outward-oriented growth prospects than ever before. At the same time, it exposes them to intensive competition from lower-cost imports and locally based foreign firms. With falling trade barriers, there is no such thing as only a domestic market.

A strong export strategy is fundamental for the internationalisation of companies. In order to facilitate access of enterprises (large, SMEs) into the export market, it is necessary to have a comprehensive export marketing program.

Objectives

This grant scheme aims to provide funding for activities carried out by new and/or existing Cypriot firms. The proposed scheme will fund actions to strengthen the extroversion of new and existing, large, micro, small and medium-sized enterprises active in the fields of manufacturing/processing and marketing of agricultural and industrial products and service providers. Selectable funding expenditures might include consultancy and other eligible, under the state-aid regulations, expenses.

Implementation

In the context of the new grant scheme, application will be submitted electronically through an integrated electronic system. This system should conform and integrate on the currently under development system designed for Technology and Industry Service. The project will include the training of staff to manage the system.

The digitalisation of the process will be beneficial (a) for companies since the process will be simplified/facilitated and the approval and payment of sponsorships will be accelerated, and (b) the Ministry will have better control and monitoring of the process both in terms of ensuring efficiency and effectiveness as well as in terms of exporting and analysing statistics that will assist in decision-making for policy development.

The design of the support scheme ensures that the financed investments respect the 'do no significant harm' principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call(s) for tenders of the scheme.

State Aid

The scheme will be implemented based on the provisions of the De Minimis Regulation (Commission Regulation (EU) No 1407/2013 of 18 December 2013) and compliant to the exemptions provided therein for supporting exporting activities, as well as on the relevant articles 4, 18 and 19 of the General Block Exemption Regulation.

Target population

Large enterprises and SMEs engaged in manufacturing/processing and marketing of products as well as services' provision who are interested in exporting their products or services.

Timeline

Q4 2022 - Issue and announcement of the first call for the submission of applications/proposal.

Q4 2023 - At least 40 enterprises supported.

Q2 2026 - At least 140 enterprises supported.

- **Investment 6: State funded equity fund**

Challenges

Start-ups and innovative companies face many difficulties in accessing financial instruments due to the high-risk nature of their activities and the lack of tangible assets that can be used as collaterals to secure banking loans.

Access to finance issues is well documented in the Cyprus economy and identified by both the Cyprus state and the European Union, who published relevant CSRs both in 2019 and 2020. Indicatively, the following financing gaps have been identified in the 2017 EIB report:

- Identified annual small size enterprises gap: €115-175 mln
- Identified annual equity finance gap: €30-35 mln
- Possible annual microfinance gap: €225-270 mln

Objectives

The establishment and management of the Fund will support the efforts of the Government to enhance access to alternative sources of finance. The policy objectives of the Government for the establishment of the Fund are the following:

- To foster economic development and growth, and more particularly, to enhance the competitiveness of small-medium enterprises in Cyprus; Emphasis should be given to achieving the National Strategy of Research and Innovation's objectives.
- To increase the availability of alternative financing sources, particularly for innovative companies and start-ups. More specifically, to strengthen Cyprus-based SMEs' equity financing, particularly in the start-up phase, through the development of networks, the promotion of innovative entrepreneurship/projects, entrepreneurial spirit, etc.
- To contribute to the enhancement/maturity of the ecosystem for equity and venture capital investments. In this regard, the identification of co-financing opportunities and investors is seen as a key element in attracting new stakeholders to the market and further increasing the availability of financing. The Fund will co-invest with the available market players (business angels, venture capital and private equity funds, and commercial banks depending on their willingness to invest and considering their solvency requirements) established and operating in Cyprus and attract, among others, external private equity operators.

Implementation

The Ministry of Finance will prepare a new tender for the selection of the external fund manager.

Based on tender's terms of reference, details of the investment policy will not be set by the Ministry of Finance and they will be formulated and agreed upon during the negotiations with the awarded external fund manager. For the purpose of this request, the investment period is expected to be five years, typical to the funds of this type.

It is clarified that any reflows (i.e. interests on the loan, return on equity, or principal repaid, minus associated costs) linked to these instruments will be reinvested for the same policy objectives, including beyond 2026.

Regarding the Do No Significant Harm consideration, Equity Fund will take InvestEU' s sustainability proofing approach.

Target population

Small and medium-sized enterprises seeking financing, with a bias on start-ups and innovative companies

State Aid

Articles 21 and 22 of the General Block Exemption Regulation are applicable to the investment scope of the envisaged Equity Fund. The detailed investment strategy will be sent to the State-aid Commissioner for review whether notification is necessary.

Impediments:

Possible lack of deal flow and difficulties in securing additional investments by co-investors. It is clarified that the Government is committed to funding the awarded Fund with €20m, regardless of its resulting capacity to attract co-investors.

Stakeholder involvement:

In preparation for the call, the Ministry of Finance will consult with market stakeholders (CIFA, Fund managers, incubators, accelerators), the EIF, and the Cyprus Securities and Exchange Commission.

Timeline

Q2 2022 – Alternative Investment Fund registered in CySEC.

Q4 2024 -Investment by the Fund to 6 start-ups and innovative companies.

Q2 2026 – Investment by the Fund to 12 start-ups and innovative companies.

- **Investment 7: Loan subsidisation Scheme for new business loans**

Challenges

The health crisis caused by the COVID-19 pandemic has affected the entire spectrum of the Cyprus economy as the measures needed to contain the pandemic's spread resulted in a significant demand shock, on top of an inevitable production shock and supply chain disruption. Furthermore, since the same crisis severely affects Europe and the rest of the world, exports and the tourism sector have been negatively affected. Under these unprecedented conditions, the economic outlook is surrounded by considerable uncertainty, and financial performance will depend on the health crisis' depth and duration.

Objectives

The interest rate subsidy scheme for new business loans is part of the package of measures to support the economy to deal with the effects of the pandemic of COVID- 19 adopted by Decision of the Council of Ministers dated 27/5/2020 and 28/5/2020 (Decision Number 657/2020), and extended until 30/06/2021, following a new decision of the Council of Ministers dated 26/11/2020 and extended until 31/12/2021, following a new decision of the Council of Ministers dated 17/02/2021.

The granting of interest rate subsidies for business loans to self-employed persons, SMEs, and large enterprises enhance the Government's efforts to support the economy during the current outburst of COVID-19 and support businesses in their efforts to outlast this unprecedented crisis.

Implementation

The scheme covers new business loans to Enterprises and Self-Employed Persons approved between 1/3/2020 to 31/12/2021 by participating Authorised Credit Institutions to cover liquidity needs, working capital, and investments, with the exemption of repayment of outstanding loans and restructurings. Beneficiaries to the Scheme are all enterprises that were not already in difficulty (within the meaning of the TF) on 31 December 2019 and are currently experiencing difficulties due to the pandemic. The duration of the interest rate subsidy is four years from the day of disbursement of the loans, which can be disbursed until six months after their approval. One of the scheme's requirements is that the beneficiaries cannot proceed to layoffs beyond 2% of their current workforce for six months from the time of approval of the European Commission's scheme, without replacement (unless it is for reasons justifying dismissal without notice).

The participating Credit institutions receive the applications for new eligible loans, and subsequently, they approve the loans according to their internal policies and the Directives on Credit Granting and Review Processes of the Central Bank of Cyprus. The Ministry of Finance's approval for the granting of the interest rate subsidy is given automatically once the participating Credit institution grants approval for an eligible loan as long as the criteria of the scheme are fulfilled.

The responsible authority for receiving the data for the eligible loans approved by the participating credit institutions is the Treasury of the Republic, which is also responsible for the final verification, according to the criteria of the scheme. Also, the Treasury of the Republic is responsible for disbursing the interest rate subsidy to the Participating institutions to allocate to the accounts of eligible loans of beneficiaries.

The capitalisation of the eligible loans' interest rates takes place twice a year, on 30/6 and on 31/12 of each year. According to these parameters, the Treasury of the Republic disburses the interest rate subsidy three months later, which is on 30/9 and 31/3 of each year. For the first two years, the interest rate subsidy covers up to 350 basis points for all the types of beneficiaries and for the 3rd and 4th year covers up to 200 basis points for micro-enterprises, SMEs and Self - employed persons and up to 150 basis points for Large Enterprises.

State Aid

The scheme is in accordance with Part 3.1. of Temporary Framework for State-aid Measures to support the economy in the Current COVID- 19 Outbreak (TF).

Target population

Enterprises and self-employed, hit by the pandemic, seeking financing.

Impediments:

Credit institutions procedures for loan approval may be time - consuming. Furthermore, there may be less than expected interest in the scheme by the eligible enterprises.

Stakeholder involvement:

Consultations took place with the Treasury of the Republic, the Deputy Ministry of Research, Innovation and Digital Policy and the approval of the Commissioner for the Protection of Personal Data was granted. Also, the scheme was approved by DG Competition. Prior to the enactment of the Scheme, MOF consulted the Association of Cyprus Banks.

Timeline

Q1 2022 - At least 1000 loans to eligible businesses have been approved by the participating credit institutions.

7.4 Cross border and multi-country projects

It is noted that this Component does not include a cross-border or multi-country project.

7.5 Green dimension of the component

A number of reforms and investments under this Component have a green dimension, contributing therefore to (a) the SMEs transition to digitalisation and sustainability (one of the main pillars of the new EC's SME strategy), (b) enabling the investments in the green sectors of the economy and (c) reducing the energy consumption associated to the ineffective public administration.

In more detail:

- All reforms and investments included in the thematic area of the “simplified and investment friendly business environment”, reduce the need for the business representatives going in person to the respective public administrations, leading therefore to the reduction of the GHG emissions, through the simplification of the processes and the enhancement of the e-Government services provided. This is related to the climate change mitigation objective covered in the 2020/852 Regulation.
- The establishment of a National Promotion Agency and Equity Fund setup will provide start-ups and innovative companies, including the ones offering green products and services, with better access to finance.

7.6 Digital dimension of the component

This Component includes implementing a big e-Government project, the digitalisation of the Cyprus Stock Exchange and a scheme dedicated to supporting the SMEs transition to digitalisation. It also includes two important initiatives to address the financing gap in the local market and therefore boost innovation and digital transformation.

Project-specific analysis:

- Investment titled “Integrated Information system for the Registrar of Companies and Official Receiver” is a significant e-Government project expected to provide the local enterprises with faster and more reliable information. It will also allow the Registrar of Companies and Official Receiver Department to streamline their processes and support more efficiently the broader target of simplifying the local business environment. It is expected to be tagged as 100% digital under code O11, as per the relevant methodology (Government ICT solutions, e-services, applications).
- The grant scheme to promote the digital upgrade of enterprises co-finances SMEs investments to digitisation and digitalisation. It is expected to be tagged as 100% digital under code O10, as per the relevant EC methodology (Digitising SMEs including e-Commerce, e-Business and networked business processes)
- The establishment of a National Promotion Agency and the setup of the Equity Fund will provide start-ups and innovative companies with much-needed financing. Many of the investees are expected to engage in the production and delivery of digital products and services.

In general, the projects in this Component will improve Cyprus performance in several dimensions of the DESI index, such as the “Digital Public Services” and “Integration of Digital Technology”, where Cyprus is currently ranked below the EU average.

7.7 Do no significant harm

In all measures included in this component that foresee construction works and purchase of new equipment, machinery, vehicles etc., all procurement procedures will require compliance with the DNSH principle as explained in detail in the separate DNSH assessment of the corresponding measure. This will apply both for investments in the public sector and for financial support schemes to the private sector.

See separate assessment performed on this area included as ANNEX 3 - Assessment of the compliance of the Cyprus Recovery and Resilience Plan with the ‘Do No Significant Harm’ Principle.

7.8 Milestones, targets and timeline

The milestones and targets for the investments/reforms of this Component are presented in the attached table.

7.9 Financing and costs

The cost for each milestone and target is presented in the attached table.

7.10 Loan request justification (if applicable)

Reforms/Investments under this Component will be covered by the grant element of the Plan.

Policy Axis 3 Strengthening the resilience and competitiveness of the economy

COMPONENT 3.4 Modernising public and local authorities, making justice more efficient and fighting corruption

8. COMPONENT 3.4 Modernising public and local authorities, making justice more efficient and fighting corruption

8.1 Description of the component

Policy area/domain: Public administration, Local administration, Justice administration, Anti-corruption

Objectives:

The Cypriot government acknowledges that a well-functioning public administration serves as a prerequisite for the effective implementation of its growth strategy. A modern, effective and transparent administration ensures the provision of quality services to citizens and enterprises, hence provide a favourable environment for further enhancing the business and investment activity, as well as social prosperity and equality. On the basis of a holistic approach, which is also reflected in the setup of this component, the government broadens its goals under the public administration reform so as to integrate qualitative rule of law dimensions further to the intended efficiency and effectiveness of the public services, at both central and local government's level. Promoting better regulation, modernising and simplifying rules and procedures, including via digitalisation, enhancing the effectiveness of the judicial system and intensifying the fight against corruption are all crucial for the achievement of the above goals.

Cyprus is facing a number of challenges in all the above areas, including long existing and persistent structural distortions that need to be sufficiently addressed. The overall aim is the implementation of measures in key areas of public and local administration as well as the judicial system that will facilitate efficient and effective administration of justice and enforcement of rulings, safeguarding investor's confidence. To this end, this component includes a series of institutional and administrative reforms as well as a series of targeted investments aiming to upgrade the functioning and the services to be provided by a modernised public sector, an effectively reformed local administration and judicial system, which, in combination with enhanced efforts for mitigating and tackling corruption, will all serve towards increasing the resilience and sustainable growth of the country's economy. In this framework, the Component consists of the following sub-components:

Subcomponent 3.4.1: Modernising the Public Sector

Reforms:

- Reform 1: Enhance the administrative capacity, and improve the functioning of public administration for better policy making and implementation
- Reform 2: Regulate flexible working arrangements in the public sector
- Reform 3: Introduce new framework for evaluation and selection process for filling public service vacancies and new regulations for the evaluation of employees' performance
- Reform 4: Strengthen administrative capacity and transparency through the professionalisation of public procurement and further digitalisation of its process
- Reform 5: Enhancement of the capacity of the Law Office

Investments:

- Investment 1: Rationalisation of the shift system through the implementation of a Roster Planning System
- Investment 2: Digitalisation of the law-making process

- Investment 3: Economic Policy Modelling Hub

Subcomponent 3.4.2: Local Administration and Spatial reform

Reforms:

- Reform 6: New legal framework for Local Authorities and relevant support measures
- Reform 7: Urban land consolidation

Investments:

- Investment 4: Enhancing e-system for issuing building permits
- Investment 5: Smart cities
- Investment 6: Regeneration and Revitalisation of Nicosia Inner City

Subcomponent 3.4.3: Efficient Judicial System

Reforms:

- Reform 8: Efficiency and Functionality of Justice
- Reform 9: Digital transformation of courts

Investments:

- Investment 7: Training of judges
- Investment 8: Upgrading the infrastructure of Courts

Subcomponent 3.4.4: Fighting Corruption

Reform:

- Reform 10: Improving the legal and institutional framework for fighting corruption

Investment:

- Investment 9: Aid Scheme for the private and public sector for certification with ISO 37001 (Anti Bribery)

Flagship initiatives: Modernise, Reskill and upskill, and Renovate

Total estimated budget to be funded through the RRP: €96 mln

8.2 Description of sub-components

Subcomponent 3.4.1: Modernising the public Sector:

Main challenges

Improving the efficiency and digitalisation of the public administration is a main challenge for public administration. Furthermore, the progress towards full digitalisation of the public sector and the promotion of e-government has been slow, mainly due to financial restrictions. The public administration in Cyprus continues to face serious efficiency challenges stemming - amongst others - from the legal framework and structural weaknesses.

The long-awaited public administration reform is pending, since 2015. The proposed new appraisal system for civil servants and the new promotion procedures and criteria are considered a very important structural change for creating flexible, modern and productive public services for the benefit of citizens, businesses and the public sector itself, and thus a governmental

priority (Country Report 2020). The COVID-19 pandemic and the confinement measures demonstrated the urgent need to develop adequate digital solutions for public services, including for supporting and strengthening the capacity of flexible working arrangements. Competences of both civil service managers and staff need further strengthening in this area, since low levels of digital skills could hold back the improvement of public administration efficiency. Thus, there is a pressing need to equip the Cyprus public sector staff with the necessary digital skills, including advanced computing, data infrastructure, governance and processing. Other important inefficiencies that need to be addressed derive from the lack of knowledge and expertise in relation to public procurement procedures in conjunction with the need to further digitalise the process in order to alleviate the administrative burden imposed on enterprises and increase the efficiency and effectiveness of public investment.

Furthermore, the increasingly complex economies and societies, make imperative the need to improve the analytical frameworks, policy tools and models so as to enhance the capacity of the competent ministries of the government to evaluate the impact of different policies being promoted in different horizons.

Objectives

The overall aim is to enhance the effectiveness, efficiency and relevance of government action, considering current challenges, needs, and expectations of both citizens and businesses.

The entailed package of reforms and investments pursues the objective to create an attractive and dynamic public administration delivering for tomorrow, through reforms and digital transformation. This will be achieved by:

- enhancing the administrative capacity, and improving the procedures and functioning of the public administration for better policy making and implementation, through the enhancement of the central role of Public Administration and Personnel Department (PAPD) relating to the formulation and monitoring of the implementation of human resource management policies in the public sector, and the role of Line Ministries (LMs) in implementing HR policies and in handling horizontal administrative functions at the Ministry;
- by developing new digital skills and competences and adapting working arrangements to cope with future challenges, including the digital and green transitions, in an efficient and effective way – the aim is to build the capacity of civil servants, including line managers, to adapt to, and work efficiently in, more flexible working conditions, such as remote working;
- adopting key legislation on modernising the functioning of the public administration, i.e. (i) the appraisal system of civil servants, and (ii) promotion procedures – this is expected to bring about new pathways for career development in the public sector.
- Development of current state of the art models/tools for the evaluation of economic policies/reforms and their impact which are important for the modernisation of the government, tools for policymaking, evaluation, real-time monitoring and forecasting. Real-time analysis and forecasting are particularly useful in uncertain times such as the pandemic.
- Reform the structure and operations of the public procurement, aligning with new technologies and innovation thereby enabling full digitalisation, reducing administrative burden and increasing efficiency and effectiveness of public investment through public procurement and cutting compliance costs for both the Contracting Authority and economic operators.

- Digital transformation of the Law Office, aiming to increase its efficiency and effectiveness, as well as productivity, quality of work and working conditions for employees.

National Strategic Context

While the Cyprus public administration has served the Republic adequately over time, today, it faces challenges, which need to be addressed. The modernisation of the public administration has been a long request by the public servants themselves, businesses and society. Inefficiencies in the public sector are evidently harming the business environment as well. Although many changes have taken place in recent years, key reforms are still pending.

In this context, capacity building training of civil servants is being promoted, including digital and green skills. Furthermore, organisational changes and new processes in public administration are being promoted to enable successful implementation of eGovernment

In terms of reforms of the public administration, a set of bills aiming to modernise: (i) the appraisal system of civil servants, and (ii) promotion procedures are pending before the HoR. Furthermore, a study of possible flexible working arrangements will be carried out aiming to take advantage of the possibilities offered by the digital era the pandemic has shown that more flexible working arrangements should be not only an option, but possibly a requirement for the future.

The reforms and investments proposed under this Component have the potential to turn the Cyprus public administration into a driving force for economic growth, while at the same time they will reduce the bureaucratic procedures and the administrative burden. The envisaged measures will benefit citizens and businesses alike, enhancing trust, transparency, contributing to strengthening the business environment and the economic resilience.

State-Owned Enterprises

The Ministry of Finance, over the past few years has undertaken a number of positive steps towards the improvement of the governance framework of State-Owned Enterprises. These tools and measures mitigate, to a large extent, the fact that the government decided to withdraw the relevant draft bill for the governance of SOE's (tabled in 2015) due to the fact that no majority was reached at the relevant Parliamentary Committee, which reflected what would have been the Parliament's voting outcome.

More specifically:

- Fiscal Responsibility and Budget System Law (20(I)/2014) (FRBSL): The FRBSL was enacted in 2014, as

the main legislative framework for the implementation of the Public Financial Management related processes in the public sector (including SOEs). Public Financial Management supports aggregate control, flexibility, prioritisation, accountability and efficiency in the management of public resources and delivery of services, which are critical to the achievement of public policy objectives.

- Effective management of state funding granted to a number of SOEs: The Council of Ministers (CoM)

approved (dec.no.86.013, dat.24/10/2018) the formulation of a specific procedure for the effective management of the state grants in order for the beneficiaries to become accountable for their decisions and to safeguard the improvement of their governance. A relevant circular was issued (18/01/2019) which defines the procedure that must be followed by the Controlling

Officers²¹ in order for the SOEs to be eligible to receive their grant. The procedure is thorough and requires SOEs to provide information to the competent Ministries/Deputy Ministries, concerning, amongst others, strategic planning, staff recruitment, public procurement procedures etc.

- Enhancement of the procedure for the approval of SOEs' budgets: Acknowledging the need to provide

further guidance to the SOEs with regard to the application of the provisions of the FRBSL, a decision was taken by the Council of Ministers (dec.no.87.226, 09/04/2019) according to which, SOEs are requested to prepare their budgets on a 3-year rolling basis (medium term budgetary framework), defining also an explicit timeline for timeframe for the submission of budgets by SOEs. The CoM decision also provides that SOEs are obliged to prepare gradually with their budget strategic plans interlinked with their budget, in order to adopt an activity-based budget approach, and a self-assessment risks report to be submitted annually to the Council of Ministers, for information purposes/ relevant actions if considered necessary.

The decision provides to the SOEs the tools needed in order to adopt a more modern approach on management issues and to the government the mechanism for enhancing its supervisory role.

In addition, the Ministry of Finance has issued a circular dated 04/05/2020, providing guidance on the procedure of the identification, analysis, evaluation and management of the risk and generally on the context of the Self-Assessment Risks report. A number of such reports have been submitted to the CoM for the year 2021. From 2021, the Self-Assessment Risks report will be submitted on a yearly basis within the overall framework of the budget submission of each SOE.

- Code of Public Governance: The CoM, in order to further improve the governance and promote and

maximise the services that are being provided by SOEs, decided (dec. no. 87.869, 25/07/2019) the following:

- a. to approve the application of the principles of the Code of Public Governance from the SOEs, as provided in the FRBSL, depending on their legal form and activities,
- b. to authorise the responsible Ministers to request from SOEs, which are under their supervision, to prepare the profile (academic, professional and experience qualifications) that the Chair and the Members of the Board of Directors should have, and
- c. to authorise the responsible Ministers to request from SOEs, under their supervision, to submit an implementation statement for the Code of Public Governance on a yearly basis.

To safeguard compliance, a relevant "self-assessing" questionnaire as to the implementation of the 6 basic Pillars of the Code, along with a compliance certificate to be signed by the Chairman of each SOE Board has been circulated to the SOEs which will have to be submitted annually along with their Budget to the competent Minister of each SOE, and subsequently to the Ministry of Finance and to the CoM.

It should be noted that the Code attempts to define a unified approach for all the entities under the control of the government, without limiting their flexibility to develop their own mechanisms for the internal control of their governance system. It must be seen as a tool for self-control and self-governance.

- Public Investment Projects: Based on the percentage of the grant provided by the state covering their total budgets, a number of SOEs (including public Universities which have a

²¹ Officers who are by Law authorised for the execution of payments.

number of infrastructure projects) has been included in the general procedure for pre-selection and appraisal of public investment projects, as this is defined under articles 84 and 85 of the FRBSL law.

- Capital investment by the SOEs: Pursuant to the provisions of article 3 of the SOEs law (Investments) of 1991 (N.100(I)/91), the Minister of Finance has issued on the 16/9/2019 the investment framework for surpluses of entities defined in Annex I of the law. An examination is currently underway in order to extend the provisions of the said article to all the entities with the same legal status.
- Procedure for the establishment of new entities: Article 96(3) of the FRBSL provides that the establishment of a new entity can be approved only when the Minister of Finance considers that the economic and financial benefits outweigh the cost that may occur from its absence. Accordingly, a Circular letter was issued by the Ministry of Finance dated 9/2/2021, that defines a detailed process for the submission of a proposal for the establishment of a new entity. Specifically, the circular provides, inter alia, that the proposal should:
 - Identify, firstly the need and the reasoning for creating the new entity, with the specific legal status,
 - provide the financial impact that will occur from the establishment of the new entity,
 - provide a risk assessment report,
 - outline the initial strategic plan of the new entity, its governance structure and issues of internal control,
 - provide the consolidated version of the report to the Ministry of Finance for their assessment and views, and
 - submit the final version of the proposal to the Council of Ministers for initial approval.

CSRs addressed

Reforms /Investments	Year / CSR Numbers Recitals	Justification
Reform 1: Enhance the administrative capacity, and improve the functioning of public administration for better policy making and implementation	CSR 1 2019 CSR 4 2020	To substantially contribute to the efficiency of the public administration and creating a truly stimulating environment for the staff as a result of better career and growth opportunities, capacity building, a supportive work environment and increased productivity, and, in parallel, facilitate the green and digital transition of the public sector.
Reform 2: Regulate flexible working arrangements in the public sector	CSR 1 2019 CSR 2 2020 CSR 4 2020	To build the capacity of both civil servants and line managers to allow for more flexibility in working conditions, such as remote working and to substantially contribute to the efficiency of the public administration and creating a truly stimulating environment for the staff as a result of better career and growth opportunities, capacity building, a supportive work environment and increased productivity, and, in

		parallel, facilitate the green and digital transition of the public sector.
Reform 3: Introduce new framework for evaluation and selection process for filling public service vacancies and new regulations for the evaluation of employees' performance	CSR 1 2019 up 2020	To substantially contribute to the efficiency of the public administration and creating a truly stimulating environment for the staff as a result of better career and growth opportunities, capacity building, a supportive work environment and increased productivity, and, in parallel, facilitate the green and digital transition of the public sector.
Reform 4: Strengthen administrative capacity and transparency through the professionalisation of public procurement and further digitalisation of its process	CSR 4 2020	<p>To address inefficiencies deriving from the lack of knowledge and expertise through training of professionals and Project Managers.</p> <p>To ensure, among others, alignment with new technologies and innovation, enable the full digitalisation of procurement procedures, and report deviations at early stages.</p> <p>To increase the efficiency and effectiveness of public investment through public procurement.</p>
Reform 5: Enhancement of the capacity of the Law Office	CSR 4 2020	The ultimate goal of this project is the digital transformation of the Law Office, aiming to increase its efficiency and effectiveness, as well as the productivity, quality of work and working conditions of the employees of the Law Office.
Investment 1: Rationalisation of the shift system through the implementation of a Roster Planning System	CSR 2 2020 CSR 4 2020	To substantially contribute to the efficiency of the public administration and creating a stimulating environment for the staff as a result of better career and growth opportunities, capacity building, a supportive work environment and increased productivity, and, in parallel, facilitate the green and digital transition of the public sector.
Investment 2: Digitalisation of the law-making process	CSR 3 2020 CSR 4 2020	To substantially contribute to the efficiency of the public administration and creating a stimulating environment for the staff as a result of better career and growth opportunities, capacity building, a supportive work environment and increased productivity, and, in

		parallel, facilitate the green and digital transition of the public sector.
Investment 3: Economic Policy Modelling Hub	CSR 4 2019 CSR 3 2020	<p>Relevant quantitative tools such as econometric models need to be developed for economic impact assessments of the Cyprus economy to evaluate and monitor policy reforms and help the implementation and monitoring of economic policies.</p> <p>Examples are economic impact assessment models and new data analytics tools that can be used to help guide economic policy as well as the evaluation and efficient allocation of resources in different economic sectors of growth. The knowledge and expertise would also be transferred to the public sector employees to apply these tools in house.</p>

Reforms

- **Reform 1: Enhance the administrative capacity, and improve the procedures and functioning of the public administration for better policy making and implementation**

Analysis and context

Reform 1 consists of two independent projects that both fall under the umbrella of the enhancement of the administrative capacity of the public administration and improvement of procedures and functioning. Project 1 is focused on strengthening the capacity and the strategic role of the core department for public administration, the Public Administration and Personnel Department, and on enhancing the capacity of the Line Ministries’ administrations to better implement public administration policies and HR functions. Project 2 is focused on specific actions for the enhancement of the administrative capacity and restructuring of the Cyprus Police.

Project 1: Strengthening the administrative capacity and strategic role of the core department for public administration - the Public Administration and Personnel Department, and enhancing the capacity of the Line Ministries’ administrations to better implement public administration and HRM function

Challenges

- The centralised system of HRM and the limited or uneven capacity in Line Ministries to handle administrative and HR issues, leads to over-reliance on the Public Administration and Personnel Department (PAPD) as arbiter on these issues and to heavy transactional workload.
- The current organisation structure of PAPD lacks coherence and capacity to adopt a more strategic role; other factors include inefficient processes and structures within line ministries and the lack of formal management and planning processes both at the central level and in line ministries.
- Involvement of the Line Ministries in the reform process for better/successful implementation

- The already planned introduction of an enterprise resource programme (ERP) which includes an HRMS module and the possibilities that this will create, call for better management of HRM functions/issues

Objectives

- Enhancement of the strategic capacity of PAPD while promoting greater flexibility and accountability in line ministries
- Enhancement of the strategic role of PAPD relating to the formulation and monitoring of the implementation of public administration and human resource management policies in the public sector (e.g. policy setting, formulation of guidelines and basic principles on HRM matters, review of existing policies and legislation / practices, industrial relations matters)
- Strengthening the capacity of Line Ministries in implementing public administration policies and managing HR issues and allowing for accountability and responsiveness

Implementation

The implementation of this reform will be based on the recommendations and results of functional reviews of PAPD (and/or other functional reviews of the public sector) already available. This reform will entail:

- Development of an Action Plan, setting quantitative and qualitative targets to be met and monitoring implementation
- Review/update of the role, competences and organisational structure of PAPD, along with the appropriate re-allocation of human resources, with a view to enhancing the central policy formulating and monitoring role of the Department, allowing for greater focus on and successful implementation of its strategic goals, and to gradually devolving responsibility to Line Ministries for day-to-day issues (including the preparation and submission of workforce plans within the budget preparation procedure).
- Capacity Building of the Line Ministries Administration in terms of human resources (in numbers and specialisation), skills, tools, procedures, structures.
- Preparation of a record of the current PAPD responsibilities and the responsibilities that could be gradually devolved to the Line Ministries
- Preparation of Manuals/Codification of procedures
- Codification of relevant legislation (including secondary legislation)
- Delivery of training activities
- Redesign of the PAPD website and enrichment of the content (including a formulation of Frequently Asked Questions), responding to the needs of the stakeholders

Timeline

Q1 2022 - Adoption by the Council of Ministers of an Action Plan regarding strengthening the capacity and strategic role of the PAPD and at the same time enhancing the capacity of the Line Ministries' administration to better implement public administration policies and HR functions.

Q4 2025 - Finalisation of implementation of the Action Plan on the HRM function in the national public administration with a view to building capacity in LMs.

Project 2: Enhancement of administrative capacity and restructuring of Cyprus Police

Objectives

Re-examine the role, the competences, the organisational structure, the procedures and the size/staffing of the Cyprus Police, aiming to focus on strategically important policies and programs, to

improve budget resourcing and general performance, and to achieve closer alignment with modern principles of institutional efficiency and effectiveness.

There is an increasing need for a significant restructuring and refocusing of Cyprus Police in order to adapt to new operational circumstances, changing public expectations and an increased responsibility to adopt systems and processes that facilitate mutual operations with other law enforcement agencies in the EU and worldwide. The need for change is also increasingly driven by rapidly evolving social, political, and technological circumstances.

For this reason, the Cyprus Police prepared a reform program to better fit the operational and economic contexts in which the police service must operate. The overall Reform consists of the following three actions for the reorganisation and modernisation of the Cyprus Police in order to be able to achieve its operational goals:

- (a) The design and implementation of a modern model of policing and operations
 - o Design a modern model of policing and operation of Cyprus police
 - o Design the relevant organisational structure
 - o Defining tasks/goals at organisational/departmental level
- (b) The design and implementation of a modern management framework for learning and development
 - o Design a modern Learning & Development Framework.
 - o Design a 'knowledge transfer' management system.
 - o Interlink hierarchical promotions with a Continuous Professional Development Framework
 - o Design a modern Continuous Professional Development Framework
- (c) The design and implementation of a modern human resources management framework
 - o Define the tasks, necessary knowledge, skills for each job, roles in the organisational chart agreed
 - o Upgrading of human resources management framework

Action (a) has started in September 2020, in parallel to a tender for an overall project manager. Actions (b) and (c) are expected to start in Q4 2021. The actions are expected to result in a number of recommendations (e.g. new software, infrastructure, digitalisation of processes, skills development, etc.).

Timeline

Q4 2023 - Adoption and entry into force of a new human resources management framework for Cyprus Police.

- **Reform 2: Regulate flexible working arrangements in the public sector**

Analysis and context

Work-life imbalance, absenteeism, lack of motivation, and staff turnover are few of the challenges that could be addressed through the regulation of flexible working arrangements in Cyprus public service. Modernising the way the public service works by taking into consideration the increased private life needs could lead to productivity improvement, to less gender segregation in occupations, to a more supportive work environment for employees who may have health limitations, but are medically fit to work and to higher participation of women in managerial positions. During the previous and the current year, the COVID-19 pandemic created challenges for the public service and its readiness to respond in such difficult situations. At the same time, it

has been proved that digitalisation in the public service should become a goal to achieve and a tool to be used for more effective and efficient performance by motivated and goal-oriented employees.

The objective of this reform is to examine whether flexible working arrangements (working remotely or partly remotely, part-time work, etc.) could be regulated, giving the opportunity to employees to choose flexible working arrangements, without impairing/aggravating the effectiveness of the public services. By regulating such arrangements, a better level of employees' satisfaction will be ensured, and their morale will be improved, by reducing absenteeism, sick leaves and unproductivity and by leading ultimately to increased effectiveness in public service.

Implementation

This reform will be implemented by the Public Administration and Personnel Department (PAPD), in collaboration with other stakeholders. A research review/study of best practices and possible limitations noted by other national public administrations with flexible working arrangements will be contacted and different proposals/recommendations on the regulation of flexible working arrangements in the public service will be examined. This study is expected to define which flexible working arrangements can be regulated in the public service, in which sectors/departments/employees and based on which terms and conditions.

Based on this study, PAPD, in collaboration with the Deputy Ministry of Research, Innovation and Digital Policy and other stakeholders, will proceed with the implementation of those recommendations that allow to put in place the appropriate safeguards and can improve the effectiveness of the public service. At the same time, development of the necessary monitoring tools would be promoted, in order to build the capacity of managers and employees to efficiently work with flexibility.

Target population

Ministries, Departments, Government Services, civil servants.

Stakeholders' involvement

The Deputy Ministry of Research, Innovation and Digital Policy, other public services (Ministries/ Departments/ Services), other interested authorities, and trade unions.

Impediments

The complicated structure of the public service with no flexible working arrangements leads to many difficulties to proceed with the proposed reform. However, transforming the strictly structured public service to a more flexible and attractive one would be an important step for the modernisation of the public service. The target should be to design a policy on the flexible working conditions, by respecting a balance of both employer and employees' needs. On one hand, to give to employees the opportunity to work with flexible working arrangements and on the other hand, not to increase the labour cost or create new imbalances in the public service.

Timeline

Q1 2023 - Decision by the Council of Ministers to implement flexible working arrangements in the Public Sector based on the Public Administration and Personnel Department's assessment of the recommendations of an external study.

Q4 2024 - Implementation of the Council of Ministers decision i.e. drafting law/regulations, communication of policies and trainings, on the basis of an action plan developed by the Public Administration Personnel Department.

- **Reform 3: Introduce new framework for evaluation and selection process for filling public service vacancies and new regulations for the evaluation of employees' performance**

Analysis and context

Human resource is a key factor for the effective functioning of public service and fulfilment of its mission. Towards this end, human resource should be appropriately chosen, fairly appraised and ensured that the most suitable employees would be recognised through the promotion system. The public service should be able to adapt in a changing environment, where expertise is valuable and performance is crucial, and be in the position to attract, employ and retain employees with skills and qualifications necessary for the effective performance of their duties and responsibilities. The improvement of the recruitment and promotion procedures and the reform of the performance appraisal system will lead to improved productivity and effective functioning of public service.

This reform has three different, but interlinked objectives, described below:

- i) Introduction of a new framework for the evaluation and selection of candidates to fill the public service promotion posts, including managerial posts, with new criteria and methods, to ensure the selection of the most suitable candidates and the effective application of the basic principles of objectivity and meritocracy.
- ii) Introduction of a new performance appraisal system to be used for development and promotion purposes in order to make the performance appraisal procedure and the promotion mechanism more transparent, fair, skill-based and effective.
- iii) Explore ways to further improve the recruitment procedures, including the modernisation of the Schemes of Service and further changes in the two relevant laws for recruitment.

Implementation

New legislative proposals for the performance appraisal system and the promotion process have already been prepared by the Public Administration and Personnel Department (PAPD) and were submitted to the House of Representatives in October 2019. Following the approval of the abovementioned legislative acts, training is expected to take place, designed and implemented by the Cyprus Academy of Public Administration, specifically for the proper implementation of the new performance appraisal system and other relevant actions deemed necessary will be promoted and/or completed (e.g. reviewing the relevant schemes of services - posts' specification).

Target population

Ministries, Departments, Government Services, civil servants and citizens.

Stakeholders' involvement

Consultation with other stakeholders may be deemed necessary.

Impediments

The implementation of the reforms requires the drafting of legislative proposals and their approval depends on the political will of the members of the House of Representatives. However, stakeholder consultation already undertaken and consensus building on the proposed proposals is expected to make a positive contribution to their adoption.

Timeline

Q4 2021 - Entry into force of legislation for the evaluation and selection process for public service vacancies and regulations for employees' performance evaluation.

Q4 2023 - Training of at least 15% civil servants, mainly at managerial level, on the new legal framework for evaluation and selection process for filling public service vacancies and new regulations for the evaluation of employees' performance.

Q1 2025 - Civil servants' performance is evaluated and public service vacancies are filled in accordance with the new legal framework. (The new evaluation system is in place as of Q4 2023 and the new recruitment system is applied as of Q1 2025).

- **Reform 4: Strengthen administrative capacity and transparency through the professionalisation of public procurement and further digitalisation of its process**

Analysis and context

The aim of this reform is the enhancement of the structure and operations of public procurement, through training of professionals and Project Managers who will be able to manage significant projects, experts providing support based on practices from other Member States, and consultation for establishing a central Project Management function. The reform will increase the efficiency and effectiveness of public investment through public procurement. The investment which is entailed will address inefficiencies deriving from the lack of knowledge and expertise.

Replacing existing processes with new ones to reduce the administrative burden and foster transparency, reporting and accountability. An investment in the new e-procurement system is required to ensure, among others, alignment with new technologies and innovation, enable the full digitalisation of procurement procedures, and report deviations at early stages.

It should be noted that professional procurers will have the knowledge and expertise to support the transition to a greener and more innovative economy, by introducing green public procurement criteria. The promotion of green public procurement is one of the areas that will include recommendations and list of best practices in order to facilitate the green transition. In addition, the proposed reform is expected to support the green and digital transition and fully adhere to the "do no significant harm" principle.

Furthermore, the digital transition is the focus of this reform and is one of the primary goals. The proposed reform will effectively contribute to the digital transition since it introduces a holistic approach for a new public procurement system that will adopt new and emerging technologies. The use of digital solutions will be instrumental in cutting the compliance costs, both for Contracting Authorities and economic operators. Digitalisation is a key factor in order to alleviate the administrative burden imposed on enterprises, especially SMEs and young enterprises. Especially the reform and investment included in the component supports the Only Once Principle (OOP), that will enable public entities to share data with each other, so that people using any public services only must enter their information once. Further to the above, the professionalisation in the area of procurement will enhance the capacity to materialise digital transformation in other areas as it will shorten the lead time for awarding IT systems related contracts and will ensure interoperability and smooth cooperation between systems.

Timeline

Q4 2022 - Complete the consultation and guidance to (1) provide institutional guidance on various options regarding the appropriate organisational structure, (2) determine the most suitable route to professionalisation of procurers in Cyprus, (3) propose alternative EU level professionalisation schemes and (4) deliver a training syllabus and related training material necessary to establish the structure and organisation of the central Professional Public Procurement Function.

Q4 2025 - A new integrated e-procurement system is fully operational including all development, testing and training of users.

Q4 2025 - at least 35 trainers / professionals trained and certified as Professional Procurers.

- **Reform 5: Enhancement of the capacity of the Law Office**

Challenges

The Attorney General of the Republic has a central role in the constitutional structure of the Republic of Cyprus. The Law Office is the legal advisor of the President, the Council of Ministers and Ministries and represents the Government of the Republic of Cyprus in court cases. In addition, the Attorney General is the constitutionally designated Public Prosecutor. Therefore, the Law Office is key for the effective functioning of the State, democracy and the rule of law. Accordingly, it is essential that it is well resourced, structured and organised.

Currently there is no IT system available and all the procedures are paper based and carried out manually. Therefore, the implementation of a case and records management system and the scanning/digitalisation of its documents are essential to ensure the efficiency and effectiveness of the operations of the Law Office.

Having regard to the ever-increasing workload of the Law Office, in conjunction with the Office's comparatively limited human resources and working tools, the need to strengthen the operational capacity, as well as the adverse and unique situations created by the Covid19 pandemic, the Law Office is undoubtedly in urgent need of digitalisation to upgrade its capabilities and increase the efficiency and effectiveness of its service. This huge step will play a key role in facilitating the restructuring and reform of the Law Office as a whole; a process that has already begun with the assistance and collaboration of other relevant Government services. Taking into consideration the crucial role the Office plays in the Government's overall operations, it is evident that a digital reform of the Law Office would be beneficial to the Government as a whole and the public at large.

Objectives

The goal of this project is the digital transformation of the Law Office, aiming to increase its efficiency and effectiveness, as well as the productivity, quality of work and working conditions of the employees of the Law Office. More specifically, the goals/objectives are the following:

- Improvement of the operational structures and processes of the Law Office.
- Better management and monitoring of data and cases.
- Improvement of the productivity and working conditions of the personnel and quality of their work.
- Provision of a wider range of statistical reports and meta-data analyses regarding performance, case flow, case allocation, progress and various financial and administrative matters.
- Easier and quicker access to information/documents.
- Better facilitation and expedition of the collaboration and communication in the Law Service.
- Use of better knowledge management tools.
- Better distribution and coordination of work within Law Office Sections.
- Provision of interactive information regarding workflows.

- Reduction of the volume of physical documents used and circulated within the Office on a daily basis.

Implementation

This reform will entail the implementation of an IT system for the automation of procedures - eLaw System

This project relates to the provision of a complete software solution (Software-as-a-Service - SAAS) that will satisfy the needs of the Law Office. It includes the supply, development and/or customisation of an existing web-based software management system which will computerise all the processes and procedures of the Law Office. Specifically, it will provide features, such as the creation of electronic case files and folders, case management and monitoring, internal communication and workflows, tracking of cases, financial management and payments. Through business analysis and during the implementation of the project, process re-engineering needs will be assessed.

For the implementation of the project DMRID will adopt an as-a-Service aaS model (Infrastructure as a Service, Platform as a Service, Software as a Service) across government to ensure that the public sector can refresh their IT systems more quickly and upgrade to new technologies more easily. In this new method for the development of IT systems, the Contractor (Vendor) will provide the hardware and software as well as operational / support services (backup, replacement of equipment, maintenance, etc.), and the Government will pay a fee (annual and/or as agreed) to the Contractor for the provision of the said services. The framework for the provision of these services will be governed by a Service Level Agreement (SLA) for a certain number of years, some of which fall under the period of the RRP while for the remaining period the fee will be covered by state funding, allowing also for the distribution of the investment cost over several years and thus better management of public funding. The contractor will have full responsibility and that will release resources from the DMRID.

Digitalisation (scanning) of the existing paper files - Scanning of all the existing paper files, which will eventually be migrated into the core eLaw System. Access to the digital files/data will be provided, until the completion and operation of the eLaw System, as all the scanned records will be indexed.

Timeline

Q4 2023 - Full operationalisation of a Software-as-a-Service solution for the Law Office. Features include the creation of electronic case files and folders, case management and monitoring, internal communication and workflows, tracking of cases, financial management and payments, and digitalisation of paper files.

Investments

- **Investment 1: Rationalisation of the shift system through the implementation of a Roster Planning System**

Analysis and context

The implementation of a roster management system aims to meet the needs of public sector organisations that provide services in different time zones (morning, afternoon and night shifts) in order to ensure optimised shift patterns and deliver productivity and efficiency gains long into the future.

This system will provide to the organisations day-to-day administration and tactical planning tools, to automate the multiple shifts plans/rotations and sends out timely communication to the employees and managers regarding their shifts. Moreover, the workforce and shift management platform will help owners and managers administer their shift workers (around 4.000 employees

-10% of concurrent employment). Automating the process of creating schedules produces consistent results, manages labour costs, increases productivity, and improves workforce satisfaction.

The main objectives of the system are the following:

- Access all the data needed to make key decisions relating to Working Time (rationalising shift patterns)
- Assess labour rotas and monitor variations as they arise
- Automatically supply payroll with the information needed to calculate pay
- Examine the cover delivered and reschedule resources if appropriate
- Record details including reserve hours, overtime, sickness or other absences
- Check the real time adherence to working hours including clocking in/out and breaks
- Remove duplication and inefficient processes relating to handling exceptions such as holidays and shift swaps
- Gain instant visibility over compliance with Working Time Regulations and see which employees are most at risk of breach

Implementation

The system will be interfaced with the HRMS module of the ERP system, which will be implemented in the public sector. Given that, the cost will cover both the implementation of the information system (software, hardware and maintenance costs) and the Integration cost for the Interfaces with ERP system.

The project will be implemented by the Public Administration and Personnel Department with the collaboration of Department of Information Services and the Treasury Department.

Target population

Staff Categories (Permanent, Casuals and HPES) that work on a shift basis in the Public Sector

Timeline

Q2 2026 - Completion of development Implementation and testing of the Roster Planning System to meet the needs of Line Ministries/ Departments.

Q2 2026 - Training of at least 40 administrator users of the Roster Planning System.

• **Investment 2: Digitalisation of the law-making process**

Analysis and context

The public administration, as well as citizens and businesses, require the provision of easy web access to several topics and links of primary interest with regard to legal matters, such as "Legislation", "Cases" and "Secondary Legislation" of the Republic of Cyprus, through an official governmental website. The lack of an official government single point of access to all legislation texts in a machine readable and interoperable format undeniably hinders any attempt to develop tools that enable easier access to the Cyprus legislation and additional search functionality in legal texts.

At the same time, the public sector lacks a comprehensive platform for legislative drafting that follows national rules. New rules for good legislative drafting and standard techniques have been implemented in the field of legislative drafting, including impact assessment since 2017. In addition, more systematic organisation or codification of the applicable law in several important areas must take place. Furthermore, transparency represents a feature of the rulemaking process that can enhance rulemaking quality and legitimacy.

The investment aims to further improve the quality of legislation and regulation by enabling easier consolidation of laws and regulations; moreover, easier access to them is expected to

enhance legal certainty and transparency and improve the overall business environment. This affects various policy areas that relate to transparency, efficiency and legal certainty for both government and businesses. The government prioritises the formulation and implementation of horizontal, cross sectoral measures, such as the development of the governmental legislation portal, which aim at removing bottlenecks and improving the overall business environment, encouraging investment and entrepreneurship and promoting smart regulation, as well as on the promotion of measures to improve the competitiveness of priority sectors.

Implementation

A dedicated Project Team will be responsible to oversee and coordinate the public procurement processes of the three-phase project and oversee the overall implementation for the development of the comprehensive legislation drafting platform and integrated database by the contracting authority (or the contracting authorities). The 1st phase of the project is in progress and PAPD will receive technical assistance through the Technical Structural Instrument (TSI) 2021 of DG REFORM. The 2nd and 3rd phases will be financed through the Cyprus Recovery and Resilience Plan. Below a brief description of each phase:

- The 1st phase involves all the necessary analysis and research that will end up in the definition of the necessary technical specifications and the preparation of the public procurement papers that will lead to the 2nd and 3rd phases of the process.
- The 2nd phase involves the development of the Cyprus Legislation Preparation Platform and the training of administrators and other privileged users. By the end of Phase 2 of the project, the government will have a well-implemented and fully functioning Law Preparation Platform that will enable: (a) the drafting and management of bill through a user-friendly web editor that can export the result in XML at all stages of the law preparation process; (b) a central database to store and disseminate the legal texts as open data through APIs, as well as in bulk and; (c) a tool to consolidate laws and amendments.
- The 3rd and final phase will involve the upload of all past laws and regulations into the new platform with the aim of gathering all available legislation online on a governmental platform.

Target population

Civil servants, lawyers, businesses, citizens

Stakeholders' involvement:

To ensure wide ownership of the governmental legislation platform, a participatory approach involving stakeholders at all levels and across services will be used for both the design and the development process. Thus, from the beginning, extensive consultations will be sought and be conducted at internal governmental level with the Department of Information Technology Services (Deputy Ministry of Research, Innovation and Digital Policy) and foremostly with representatives from the executive, the legislature and the judiciary structures, especially the ones involved in the law-making process, such as the Law Commissioner, the Law Office of the Republic, the Parliament, as well as external interested parties, such as and the Cyprus Bar Association.

Impediments:

Established practices may lead to some resistance to change; however, this is not expected to hinder the establishment and the promotion of the platform among providers and users, since the project provides for proper extensive training and capacity building for all users and stakeholders involved.

Timeline

Q2 2023 - Signature of a contract for the digitalisation of the law-making process and the development of a comprehensive legislation drafting platform and integrated database.

Q1 2025 - Development, acceptance and putting into operation of the Cyprus Legislation Preparation Platform.

Q2 2025 - Training of 100 administrators and other privileged users

Q4 2025 - Digitalisation, consolidation of laws & regulations and upload of all past laws and regulations into the new platform.

- **Investment 3: Economic Policy Modelling Hub**

Analysis and context

The severe effects of the recent crisis make the economy highly vulnerable to external crises. Based on a recommendation by the Cyprus Economy and Competitiveness Council, endorsed by the government, a new strategy for the long-term sustainable growth of the Cyprus economy is currently under preparation with the support of DG Reform. A new policy mix aiming at improving the country's competitiveness, fostering existing and new areas of economic growth, via greener, smarter and more sustainable growth patterns, while at the same time protecting and promoting citizen's wellbeing, is expected to be adopted and implemented as a result of the new strategy.

Several of these new growth strategies and policies will be adopted in Cyprus and investment will be directed to various sectors. It is significant to assess the economic impact of these new policies as well as government investments and to re-evaluate their economic impact in both short and long-term horizons. Moreover, it is important to monitor their effects on various key economic indicators which can be evaluated in real-time and for alternative horizons. In analysing the economic impact assessment of existing and new economic policies, the public administration of Ministries and the Ministry of Finance will need to upgrade its skills and knowhow to apply such quantitative models and tools for better economic policies and investments. The Economics Research Centre given its research expertise and existing collaboration with the Ministry of Finance can help not only develop these new impact assessment tools but also train and upgrade the public sector employees to apply them.

Impact assessment exercises require a number of alternative econometric and quantitative models, using current state of the art techniques in a rich data environment. Such models are available in the EC and in many other European countries. Cyprus so far does not have its own model or model hub for economic impact assessment of various government policies. More importantly, most of the European funds directed to European country members are expected to be re-evaluated and monitored via impact assessment exercises as requested by the European Commission. In the European Commission recommendations, a public administration fit for the future recognises not only the limited use of impact assessments but points out that such assessments will become the new norm for accessing funds from the EC and evaluating their efficient allocation as well as monitoring investment decisions. The EC understands and recommends that the public administration can benefit from such modern tools and recommends among others collaboration of academic and public sector. In addition to this, the EC suggests that new data analytic tools are developed using current state of the art techniques such as AI

among others which will be particularly helpful in real-time economic policy analysis. This is also a challenge that the Economics Research Centre can help address given its collaboration with Ministries in Cyprus and local policy institutions but also through its technical expertise from the local university but also its international network of top university collaborations.

The project has three broad objectives:

First, for better policymaking and implementation it is important to use alternative quantitative models for economic impact assessment. More specifically the objective is to develop a number of models for the Cyprus economy which can be used by government policy makers and other institutions to evaluate the impact of different policies in different horizons. Hence, the Economics Research Centre at the University of Cyprus could become a think tank facilitating the government policy makers. Similar modelling research units are available in other European Union countries which comprise of independent publicly funded institutions or government institutions. The tools developed are useful for the evaluation of new growth models (policies, investments and reforms) evaluating their impacts in terms of competitiveness and economic growth as well as other existing and new economic policies. Second, the objective is to provide tools to monitor policies in real-time as well as use the models to forecast their impact. Third, we aim to develop different, complementary models using current state of the art techniques and novel data analytic methods, including big data such as micro-level, credit registry, AnaCredit data as well as data from the banking institutions and other sources leading to technological reforms of the how policy is informed and evaluated. Fourth, the University plans to transfer both the tools and the knowledge to upgrade the public sector of Ministries and in particular to the Ministry of Finance so that they can use these tools in-house while at the same time maintain our close collaboration with the government sector.

In summary, the project aims at developing current state of the art models/tools for the evaluation of economic policies/reforms and their impact which are important for the modernisation of the government tools and the public sector for policy-making and evaluation as well as the monitoring of new growth models.

Implementation

The Models will be developed by the Economics Research Centre at the University of Cyprus in cooperation with the MoF.

The investment will be comprised of 3 actions:

Action 1: Economic Policy Modelling Hub at the Economics Research Centre: New Models, Tools and Data for Economic Policy Analysis and Evaluation

Action 2: Transfer knowledge and training of public sector employees at the Ministry of Finance. Upgrade the public sector tools and skills for economic policy analysis and evaluation (e.g. economic impact assessments, economic evaluation and monitoring of reforms)

Action 3: Development of big data and data analytics (collection and linkages of different databases in collaboration with the government) for informing and monitoring economic policies especially in real-time, also useful for modelling, nowcasting and forecasting.

Timeline

Q4 2023 - Set up of the scientific team and preparation of the lab for setting up a Modelling Hub for Economic Policy Analysis.

Q4 2025 - Completion of development of around 20 econometric impact assessment models and new data analytic tools for the Cyprus economy based on different methodologies, such as, setup a large scale DSGE model for the Cyprus economy and smaller complementary models like VAR-

type, structural models and IO models for economic policy analysis useful to the government and other policy institutions in Cyprus.

Subcomponent 3.4.2: Local Administration and Spatial Reform

Main challenges

Municipalities and Community councils in Cyprus are too small to provide good and efficient governance. The decentralisation and territorial consolidation are long overdue, as well as relevant capacity-building for local authorities. Municipalities and community councils are called to improve their performance and efficiency. They are expected to provide their citizens with a decent quality of public services, requiring particular skills and capabilities on different levels and spheres of governance.

Objectives

The specific objective of the project is to develop and strengthen the administrative capacity and cooperation of the Ministry of Interior and local authorities themselves in the task of ensuring the effective implementation of the new local administration model in line with principles of democratic governance.

CSRs addressed

Reforms /Investments	Year / CSR Numbers Recitals	Justification
Reform 6: New legal framework for Local Authorities and relevant support measures	CSR 1 2019	To improve the administrative independence and capacity together with ensuring financial autonomy for local administration To create financially sustainable local administration authorities Introduce a new model of administration for Municipalities Increase the range of services provided to citizens by local authorities while at the same time reducing the cost of these services Increase transparency and accountability Improve the efficiency of water supply, sewerage and solid waste management by creating district organisations who undertake this task To increase the administrative capacity of community councils by creating community clusters for the provision of services to communities
Reform 7: Urban and land consolidation	CSR 4 2019	To facilitate the utilisation of land for construction purposes, minimising the

	CSR 3 2020	need for the expansion of settlements' boundaries, facilitating and digitising the process of applying, studying and issuing of planning permits, stabilising the price of land and minimising the impact on the environment and the further loss of biodiversity caused by soil seal.
Investment 4: Enhancing e-system for issuing building permits	CSR 1 2019 CSR 4 2019 CSR 3 2020 CSR 4 2020	To upgrade the existing on-line application system of "Hippodamos" and enable the Architects to submit applications for Planning and Building Permits to all the Planning Authorities and Building Authorities from a common platform.
Investment 5: Smart Cities	CSR 4 2019 CSR 3 2020	To improve the quality of everyday life of citizens and residents throughout Cyprus in a coordinated fashion, through smart city solutions.
Investment 6: Regeneration and Revitalisation of Nicosia Inner City	CSR 3 2020	Actions towards the regeneration and revitalisation of Nicosia inner city aim to provide an incentive towards attracting young residents in the area, new investments for enterprises and generally bolstering economic activity.

Reforms

- **Reform 6: New legal framework for Local Authorities and relevant support measures**

Analysis and context

Cyprus is currently among the most centralised countries in Europe. It also has a fragmented territorial structure; its municipalities and Communities are too small to provide good and efficient governance. The decentralisation and territorial consolidation have become a necessity, as well as relevant capacity-building for local authorities.

Local authorities lack important capacities and skills needed to manage their home affairs better and to create economies of scale. They need to become more efficient and effective in their performance in order to provide a certain level of public services to their citizens. The local government reform, including capacity building and training, are currently among the priorities of the government. In 2017-18, the Ministry of Interior of the Republic of Cyprus, the Union of Cyprus Municipalities and of the Union of Cyprus Communities in cooperation with the Council of Europe's Centre of Expertise for Local Government Reform implemented the "Training and Capacity Needs Analysis (TNA) of Local Government in Cyprus", which identified the gaps in local government's competences and skills. The findings of TNA constitute the basis for the elaboration of the "National Training and Capacity-Building Strategy for the Local Government of Cyprus (NTS)". The NTS has been developed by the same stakeholders and was published in December 2018. This document has been adopted by the Ministry of Interior and defines the framework within which the training and capacity-building environment, training expertise and

training delivery should be applied at both local authority levels as well as within the national framework.

According to the findings of the (TNA), there seems to be a vast agreement, among the leaders of municipalities and communities, that the local government system in Cyprus was established according to conditions which existed a long time ago. The system still operates under the same framework without serving the needs of the modern society. There is a widespread agreement that a reform is an urgent matter. More specifically, the heads of the local authorities believe that the main constraints in the operation of the local government system are the following:

- High level of dependency from the central government and extensive bureaucracy leaves limited space for decision-making power and autonomy;
- Municipalities and local communities are under-staffed (both in number and in capacities);
- Not enough financing for the responsibilities entrusted to the local authorities.

The efforts for the local government reform have been continuous for the past 10 years. The process was officially initiated in 2011 and was reinforced after the 2013's fiscal crisis, since the recommendations provided through the MoU were regularly highlighting the need for reform in the sector of public administration, including the wider sector of the local government's system. Based on a decision of the Council of Ministers (2015), the Ministry of Interior has prepared a strategy for the reform of the local government. This strategy has been updated for the years 2019-2022. In addition, 3 draft laws for the reform of the Local Government have been approved by the Council of Ministers and submitted to the House of the Representatives in 2015. The process had been frozen for a period for several reasons (e.g. elections etc.), but since 2018 discussions have commenced again and put forward as a high priority.

Concerning the management of water supply and sewerage, considerable effort has been made during the last years for the concentration, especially of water supply under one district organisation (for urban areas), since responsibility for the provision of these services is fragmented under numerous local authorities (in rural areas under the Community Council) and Councils, which resulted in big quantities of water being wasted. A recent study carried out at the initiative of the Water Department of the Ministry of Agriculture has confirmed the benefits in terms of economies of scale, better natural resources management and improvement in services provided to the public through the merger of responsibilities for these tasks under one district organisation.

The main objectives of the reform through these new draft laws are:

- To improve the administrative independence and capacity together with ensuring financial autonomy for local administration. The reduction in the number of Municipalities becomes a necessity in order to ensure viability.
- To increase the administrative capacity of community councils by creating community clusters for the provision of services to communities. The establishment of 32 local clusters for the Communities, will provide centralised services to the 300 Communities not included in the new municipalities.
- Introduce a new model of administration for Municipalities and create new enhanced staff structure for the new Municipalities.
- The transfer of new competences together with the transfer of funds from central government to the municipalities especially in the areas of issuing of permits, social policy, local infrastructure maintenance, schools and the provision of local services to the citizens. Increase the range of services provided to citizens by local authorities while at the same time reducing the cost of these services, where possible.

- To create financially sustainable local administration authorities. The reform of local finances in order to foster fiscal decentralisation and secure adequate own financial resources of municipal authorities. A radical change in the way municipalities are financed.
- A novel form of legal supervision of local authorities that secures their administrative autonomy.
- New rules of transparency and democratic accountability. Increased civil participation in decision making.
- Improve the efficiency of water supply, sewerage and solid waste management as well as issuing of urban planning and building permits by creating five District Organisations for Local Administration which undertake exclusively the above-mentioned tasks on a district level.

Implementation

The three draft laws comprising the reform of the local government in Cyprus are the following: (a) Municipalities Law of 2020, (b) Communities (Amending) Law of 2020 and (c) Law on District Local Government Organisations (submitted in 2015). The first two draft laws were submitted to the Parliament on 13/3/2020. The draft Law on District Local Government Organisations had been submitted in 2015 and has already been discussed before the Parliamentary Committee on Internal Affairs. The same Committee has begun discussions on the other 2 bills since July 2020.

The capacity building project will be implemented through the cooperation of the following organisations: The Ministry of Interior of the Republic of Cyprus, the Union of Cyprus Municipalities, the Union of Cyprus Communities of Cyprus and the Cyprus Academy of Public Administration supported by the CoE's Centre of Expertise

The aim is to provide capacity-building for local authorities and their associations to improve governance and public services, focusing on 1. Implementation of measures included in the National Training and Capacity-Building Strategy for the Local Government of Cyprus 2. Public Ethics Benchmarking (PEB) (this part will be implemented in coordination with the Ministry of Justice and Public Order so as actions will be complementary to any actions on anti-corruption implemented by the MJPO) 3. Strategic Municipal Planning (SMP) - Training & Implementation will be provided including the preparation of actual Strategic Plans for a specific number of Municipalities and Communities 4. Inter-Municipal Cooperation (IMC) 5. Leadership Academy Programme (LAP)

Target population

Local authorities (Municipalities, Communities, Sewerage, Waterboard and Solid Waste Management Councils), elected members of local authority councils, staff of local authorities

Stakeholders' involvement:

The Union of Cyprus Municipalities as well as the Union of Cyprus Communities were involved in a continuous dialogue with the Ministry of Interior as regards the draft laws for the local administration reform as well as capacity building. The Council of Europe's Centre of Expertise has been supporting the efforts for capacity building in local authorities through the provision of experts and specific tools for training. The Cyprus Academy for Public Administration is actively involved in the capacity building for the organisation of the trainings.

Impediments:

As stated above, the local government reform begins with a very significant legislative reform. The three related draft legislations are already being examined by the competent parliamentary committee. Both the current Minister of Interior, as well as the previous Minister have held

numerous meetings with political parties in order to discuss the reform and convince of the need to proceed as well as the benefits of the current bills.

Timeline

Q4 2023 - A new framework law on Local Authorities enters into force.

Q4 2024 - Completion of a series of thematic capacity building programs for local administration, providing training to at least 500 participants (members and staff of local authorities).

- **Reform 7: Urban land consolidation**

Analysis and Context

Cyprus' Public and Local administrations/services currently face the triple challenge of: (1) delivering better with less i.e. meeting societal & business needs in times of tighter budgets; (2) adapting public service provision to demographic, technological and societal changes; and (3) improving the business climate through fewer and smarter regulations, reducing administrative burden and provision of better services in support of growth and competitiveness. Good governance and quality of public administrations are recognizably in the interests of the citizens to achieve best value from finite public funds and create a regulatory environment that promotes employment and growth.

According to the European Commission's Technical Report (2011), Cyprus has a soil sealing rate of 3.6% and an artificial surface share of 8.5 %. Cyprus is under a great deal of pressure for the use of land, and due to extended tourist infrastructure, the intensity of use is the lowest in the EU. Specifically, for each inhabitant corresponds 1,032 m² of artificial surface area or three times the average of MS. The main factors for low usage intensity are mainly the number of holiday homes, large tourist developments and scattered development.

Scattered development is the main factor for urban sprawl. The European Environment Agency (EEA) defines urban sprawl as 'the natural pattern of the expansion of large urban areas with low density, under market conditions, especially in the surrounding agricultural areas'.

Urban sprawl in Cyprus occurs mainly by the extensive residential zoning. In many cases the area covered in residential zones could accommodate 10 to 30 times the current population. The pressure, however, for the further extension of the zones remains. One of the main reasons is the lack of access to land plots, necessary for their utilisation that leaves the residential zones almost empty and foster development outside their boundaries where access might be accomplished.

The objective of the Reform is to facilitate the utilisation of land for construction purposes, minimising the need for the expansion of settlements' boundaries, facilitating and digitising the process of applying, studying and issuing of planning permits, stabilising the price of land and minimising the impact on the environment and the further loss of biodiversity caused by soil seal.

The project aims to set up a legislative framework regarding Urban Land Consolidation and promote the implementation of 'urban land consolidation' master plans in selected areas or in areas of strategic significance for the island. Land Consolidation is a process by which segmented and inaccessible land (within the development limits of an area), are integrated and redistributed to form land parcels and provide adequate infrastructure in order to enable development in these otherwise inaccessible areas.

These lead to other wider objectives such as accomplishing the goal for the "15-minute city", biodiversity protection, rationalisation of real estate value etc.

Implementation

The final product of the reform is the enactment of a Bill on Urban Land Consolidation by the Parliament. In order to prepare this the following steps are needed: Best practices study

(completed), implementation study, drafting of the Bill and other supporting documents, approval by the Council of Ministers, legal vetting and discussion and approval at the Parliament.

For the implementation of the reform the following administrations/ bodies will be involved: Ministry of Interior and its two relevant Departments: Department of Town Planning and Housing, Department of Land and Surveys, Planning Board, Law Office of the Republic of Cyprus, Council of Ministers, Parliament. The coordinator will be the Department of Town Planning and Housing. The capacity for the implementation lies within the relevancies of each body.

Investments necessary for the implementation of the Reform:

- Expert study on Urban Land Consolidation

The study will provide the basis for the drafting of the Bill on Urban Land Consolidation. It will be assigned to the private sector through a tender process according to public procurement legislation. The Study will assist the relevant Authorities to prepare the Bill in a timely and efficient manner.

- Digital Platform for enabling Urban Land Consolidation

The Digital Platform will enable the process of drafting Land Consolidation Master Plans. It will have two components: an application and application management tool and a GIS system based drafting tool. The Platform will be a component of the information system of the Department of Town Planning and Housing. The Platform will enable interested parties (landowners, local authorities, and businesses) to apply for a process of Master Plan and the Department of Town Planning and Housing to prepare the Plans in an efficient and transparent manner. The Platform will be commissioned by the Department of Town Planning and Housing according to the provisions of the relevant legislation. The time of preparation is 6 months.

- Urban Land Consolidation Pilot Master Plans

The Master Plans will allow landowners to use their land for own purposes or put it on the market. The Plans will serve as drivers to attract population benefiting the revitalisation of areas, for the better utilisation of infrastructure etc. The Master Plans will be commissioned by the Department of Town Planning and Housing according to the provisions of the relevant legislation.

Target population

The reform will facilitate landowners, land developers and business in general (mainly small and medium-sized enterprises), the construction sector, families in need for affordable housing, local authorities and planning authorities.

Stakeholders' involvement:

Besides the administrations/ bodies involved in the implementation of the reform, stated above, other stakeholders will be involved as per their interest. A preliminary stakeholder analysis identifies the following interested bodies: Union of Cyprus Communities, Union of Cyprus Municipalities, Cyprus Technical Chamber, Cyprus Chamber of Commerce and Industry, Cyprus Real Estate Association, Cyprus Association of Planners, Cyprus Architect Association. The stakeholders will be involved through public consultation and participation processes to be targeted directly on their needs.

Impediments:

To avoid possible delays in the drafting of the Bill, study for the Bill will be assigned to the private sector. For the facilitation of the discussion between the relevant authorities (Department of Town Planning and Housing, Department of Land and Surveys, Planning Board, Law Office of the Republic of Cyprus) which might delay the process, workshops will be organised. The thorough preparation of the Bill will enable and facilitate the discussion at the Parliament.

Timeline

Q3 2022 - Entry into force of a law or other regulatory framework on urban land consolidation with the aim to reduce urban sprawl through rational utilisation of existing residential areas.

Q4 2025 - At least 10 master plans for urban planning in residential areas are drafted, published and approved for unitisation.

Investments

- **Investment 4: Enhancing e-system for issuing building permits**

Challenges

The existing "HIPPODAMOS" project covers the development and application of an Integrated Information System that will cover the IT needs and demands of all Department of Town Planning and Housing Sectors as well as the management of Building Permits from the District Administration Offices. The System Roll-out is expected to be completed by the end of 2021.

The "e-Application" environment of the "Hippodamos" System for the acceptance of applications for Planning and Building Permits needs further development and should be expanded to support all the Planning and Building Authorities. This expansion of "Hippodamos" will be implemented through this investment.

Objectives

- i) Upgrade/expand "e-Application" environment of "Hippodamos" System for the acceptance of online applications for Planning and Building Permits. The expansion will support all the Planning Authorities and Building Authorities. Under the Cyprus Law planning permits applications can be submitted to all District Offices of the Town Planning and Housing Department and the four major Municipalities (Nicosia, Limassol, Paphos and Larnaca) and building permits can be submitted to all District Administration Offices and to all of the Municipalities. Currently "Hippodamos" System of the Town Planning and Housing Department supports the electronic submission of applications for Planning Permits for the District Offices of Town Planning and Housing Department as Planning Authorities and Building Permits for the District Administration Offices as Building Authorities. The aim of this project, in association with the Local Government (Municipalities), is to upgrade the existing on-line application system of "Hippodamos" and enable the Architects to submit applications for Planning and Building Permits to all the Planning Authorities and Building Authorities from a common platform, thus enhancing the functionality of the system.
- ii) The "Hippodamos" System will be upgraded in order to enable the process of applying, studying and issuing Planning and Building Permits digitally. This task is of very high priority, but its implementation depends upon the enactment of the legislation for the Facilitation of Strategic Investments.
- iii) Other "Hippodamos" modules, upgrade/expansions (construction contract management/administration, etc.) in order to fulfil new requirements identified during "Hippodamos" implementation.
- iv) Supply of additional Hardware/System software necessary for the implementation of (i) and (ii) above.

State Aid

Not applicable.

Target population

Architects / members of the Cyprus Scientific & Technical Chamber (E TEK), Construction companies. The applicability of the project will have a nationwide coverage.

Timeline

Q4 2021 - Completion of the enhancement of the "e-Application" environment of the existing "Hippodamos" System to enable the submission of applications for Planning and Building Permits for all Planning Authorities and Building Authorities (Municipalities) from a common platform, regarding applications under the New Development Framework.

Q4 2024 - Completion of enhancement of the planning and control area, project management area and upgrade the hardware and software of existing "Hippodamos" System to support the additional functionalities.

• Investment 5: Smart cities

Analysis and Context

Currently various services to citizens are predominantly being offered in the "traditional" way at high cost, depriving citizens the benefits of enhanced services offered by smart city solutions. The main challenges that need to be addressed include:

- A poor capacity and resilience of telecommunications networks and universal internet access, in order to support, among others, the increased need for teleworking and digitised education during the pandemic;
- A poor digital infrastructure and non-availability of efficient digital services in the public and municipal sectors (e-governance);
- Lack of environmental and energy-saving smart city solutions, such as: recycling plans, energy automation and consumption tracking systems, smart streetlights, tracking of CO2 emissions, electromobility;
- Lack of mobility and transport smart city solutions, such as: efficient transportation systems, smart parking systems;
- Lack of smart city water management systems, such as: systems for water consumption tracking, leakage detection and control, water quality monitoring, smart irrigation;
- Lack of smart city waste management systems, such as: systems for the collection of waste with sensors, digital tracking and payment for waste disposal, optimisation of waste collection routes;
- Lack of smart health care systems;
- Lack of smart public safety systems;
- Lack of smart local government – citizen interaction.

All the challenges described above result in poor citizen experience and well-being, while the health crisis caused by Covid-19 has highlighted even more the lack of these services and the need to accelerate the process of their implementation in Cyprus. It should be noted that not all of the above challenges are addressed in this Component, but they are tackled in other Components (e.g. challenges related to connectivity issues or to water management systems). An additional challenge is the fact that the competences lie in many cases with state authorities (e.g. mobility and transport in the Ministry of Transport, public safety in the Police), and not local authorities. Therefore, it is important to identify where competences lie and assign projects to the appropriate Project Promoters (municipalities or ministries/services of the central government).

In a country as small as Cyprus, it makes sense to create one 'Smart Cyprus', in which efforts are coordinated and synergies are exploited, so that the user / citizen experience is the same everywhere. Until recently, various municipalities have been making their own independent plans, without any coordination of the actions to be taken for implementing a 'Smart Cyprus'. It is exactly for this reason that the newly established Deputy Ministry of Research, Innovation and Digital Policy, has recently announced that, within its responsibilities, it will promote the Development of a national strategy for the creation of smart cities. In addition, as stated above, certain smart actions cannot be undertaken by the municipalities because they involve competences of the central government. It is therefore considered appropriate that the smart cities strategy be designed at national level by a competent central government authority, adopting common guidelines and specifications, examining all the above challenges in respect to how they serve citizens and finally achieving a unified and homogeneous approach to serving citizens, regardless of city / region.

The national strategy for the creation of smart cities will be the outcome of a study to be conducted by external experts. Once the strategy is defined, the Deputy Ministry of Research, Innovation and Digital Policy will supervise its implementation and, together with all stakeholders involved, make sure that all necessary reforms in the legal and regulatory framework are enabled.

Moreover, once the study concludes and according to its findings, the Deputy Ministry will undertake the responsibility of centrally leading and implementing certain smart city projects at national level, according to the concluded priorities. Additionally, since certain municipalities have already advanced in certain smart city actions, the Deputy Ministry may adopt their approach for implementation at national level. At the present time, the three priorities, as indicated by the main municipalities of Cyprus, are smart parking, smart lighting and smart waste collection management solutions.

The Deputy Ministry of Research, Innovation and Digital Policy (DMRID), pursuant to a relevant Council of Ministers' decision on November 13, 2020, has been appointed to take the leading and coordinating role in developing a nation-wide strategy on Smart Cities, orchestrating, through a well-crafted plan, Smart-cities framework, all supporting initiatives and smart-cities building blocks. The Ministry is looking, through a Tender, to source the services of an agency with subject-matter expertise on Smart-Cities Strategic Plan and Architecture.

The Deputy Ministry's key objective, through the implementation of the nation-wide strategy, is to:

Orchestrate the existing on-going initiatives and include them in a nationwide plan, enhanced and complemented with additional initiatives, implementation plan, governance and steering mechanism that can lead to:

- i. Transformed quality of life and citizen experience,
- ii. optimise city's use of resources and services, and
- iii. operational efficiencies and revenue maximisation.

The Smart City National Master Plan is expected to identify, among other initiatives and streams:

- a. major citizen challenges, such as Smart parking, Smart lighting, Smart waste management, Digital Citizen Engagement etc, through the implementation of smart city solutions, and
- b. the challenge of multiple un-coordinated 'smart city' actions and initiatives in Cyprus, which are being driven separately by each municipality, at different speeds and standards.

The Strategy will consider individual initiatives by certain municipalities that have already started and where it is deemed appropriate adopt the approach taken at national level. It will also

consider the three priority smart solutions of the main municipalities, namely: smart parking, smart lighting and smart waste collection management.

Priority will be given first to the design and implementation of the smart city infrastructure (network, control, etc.) as well as the design and implementation of the abovementioned three priority smart solutions. It is important to note that the smart city infrastructure, in order to add more smart services, only requires the installation of appropriate sensors and analysis of the data collected.

It is expected that through the implementation of the Smart Cyprus Strategy, better services will be offered to the citizens, whilst better utilisation of available resources and reduction of the impact on the environment will be achieved. In addition, through the utilisation of high-capacity networks by smart city solutions, demand will be created for such networks, which in turn will increase the level of investment in them, thereby contributing to the attainment of our broadband targets as well.

The 'CY Smart City platform' platform, for which a tender to procure will be issued, will bridge and connect devices, people, processes and applications with a broad and open approach. Its architecture and technical specifications will also define the interconnection and configuration of sensors and other equipment to implement smart parking, smart lighting and smart waste management solutions.

The platform will connect data and devices together to create a unique, shared information system.

Implementation

Stage 1

The Ministry will source through a Tender, the services of an agency with subject-matter expertise on Smart-Cities Strategic Plan and Architecture. The study will propose a 'CY Smart City Platform' framework and architecture, which will:

- i. Enable and provide all necessary smart city technology and infrastructure at a national level, including, for example: ethernet and fibre infrastructure and/or cellular connectivity and/or LoRaWAN gateway and/or Mesh router and/or Vehicle-to-Infrastructure technology and/or Outdoor Wi-Fi and/or Edge Computing.
- ii. Be able to support existing smart city platforms and vertical solutions already or in the process of being implemented by certain municipalities, as well as integrate new ones which will be implemented in the future.
- iii. Define the short-term implementation roadmap of the following three (3) Smart City solutions / actions, which have been indicated as top priorities from most municipalities:
 1. Smart parking,
 2. Smart lighting,
 3. Smart waste management.

It is noted that even though the current study aims at the initial implementation of the three (3) smart city actions, the 'CY Smart City platform' designed should be able to later endorse additional smart city vertical solutions / actions.

The implementation plan and roadmap should also identify, where necessary:

- The legal framework, policies and regulations needed to support these Smart City Solutions.
- The main agents required (Ministry of, Municipality of, telecoms and data provider, etc) in the implementation of each Smart City Action.

- Provide an ‘a la carte’ menu of additional most popular smart city solutions, including digital citizen engagement, from where a municipality can choose what to implement according to its own economic, environmental, technological, social, cultural needs and characteristics and from where it can find the basic principles for implementing them. The objective is to “standardise” for Cyprus the design of such popular smart city solutions. This list of smart city solutions, will serve as a guidance tool to be followed by municipalities, should they choose to implement such solutions in the future.

The study should deliver a blueprint and implementation plan towards a robust interconnected ‘Smart City CY Platform’ that will bring together the intelligence of smart city applications and services utilising smart city technology and infrastructure at a national level. The platform should be able to accommodate vertical solutions from multiple providers, in accordance with the needs of each municipality and should incorporate existing smart city solutions that have been deployed or are currently in the process of being deployed. The ‘Smart City CY Platform’ will be the back-bone platform, on which all existing and future smart city solutions will be implemented in a gradual and evolutionary way.

The implementation of the national Smart Cyprus Strategy in all municipalities of Cyprus is quite a complex task, involving the local authorities as well as central government services. It is therefore imperative to appoint a National Steering Committee, which will be headed by the Deputy Ministry for Research, Innovation and Digital Policy and comprise of government and local authority officials, to ensure that the Strategy is designed and implemented in an efficient manner.

Stage 2

Upon the completion of the study (Stage 1), the Ministry will issue a second tender to procure for the implementation of the ‘CY Smart City Platform’ and the following smart city solutions: Smart parking, smart lighting and smart waste management. The successful tenderer will operate and maintain the platform and will provide services to the municipalities.

The design of the support scheme ensures that the financed investments respect the ‘do no significant harm’ principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call(s) for tenders of the scheme.

State Aid

State-aid issues, if any, will be taken into consideration.

Target population

Local Authorities, citizens and visitors.

Timeline

Q4 2021 - Complete the study to define the CY Smart City Platform architecture and technical specification.

Q4 2024 - Full operationalisation of at least 97.000 smart sensors as part of the Smart cities’ initiative.

Q2 2026 - Development of 3 mobile applications for smart parking, smart lighting, smart waste management available for downloading by users - citizens in 30 Municipalities.

- **Investment 6: Regeneration and Revitalisation of Nicosia Inner City**

Analysis and Context

Actions towards the regeneration and revitalisation of Nicosia inner city aim to provide an incentive towards attracting young residents in the area, new investments for enterprises and generally bolstering economic activity.

The investment will focus on:

- (a) Renovation of 'Faneromeni' School in order to be used as a Department of the University of Cyprus,
- (b) Purchase of buildings in the inner city which will be renovated and transformed by the Nicosia Municipality to be used as students' accommodation,
- (c) Provision of Incentives to the private sector to provide students' accommodation in the inner city.

Nicosia inner city is facing population reduction and reduced investment initiatives for an extended period. Old derelict buildings are a threat to public safety while posing obstacles for business investments in the area.

Implementation

Regarding the 'Faneromeni' School, relevant studies will be conducted regarding the renovation of the school, followed by the actual renovation which will be carried out by a private contractor selected through a tender procedure.

Regarding the purchase of buildings to be used as students' accommodation by the Nicosia Municipality, two buildings will be selected which will be renovated by a private contractor selected through a tender procedure. It is expected that the said buildings will provide housing for about 110 students.

An incentives scheme - a grant scheme, will be prepared aiming to encourage renovation of old buildings in the inner city by the private sector and their transformation into students' accommodation. It is expected that the said scheme will create about 400 new accommodation spaces.

The design of the support scheme ensures that the financed investments respect the 'do no significant harm' principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call(s) for tenders of the scheme.

Timeline

Q1 2022 - Issue call for proposals for the aid scheme to support the renovation of rooms in the Nicosia Inner City to convert them into student dorms following approval of the scheme by the Council of Ministers

Q4 2024 - At least 250 rooms renovated and converted to student dorms, due to the support granted.

Q2 2026 - At least 460 rooms renovated and converted to student dorms, due to the support granted.

Q2 2026 - The Faneromeni School renovated to house the School of Architecture of the University of Cyprus, due to the support granted.

Subcomponent 3.4.3: Efficient Judicial System:

Main challenges

The justice system in Cyprus faces serious challenges despite the ambitious comprehensive reform programme initiated by the government in 2016.

According to the EU Justice scoreboard 2020, while judicial independence in Cyprus is perceived high, the efficiency of the judicial system faces serious challenges as indicated by the length of court proceedings which are the worst in the EU and serious level of backlog of cases, which are amongst the highest in the EU. Other deficiencies identified in the EU Justice scoreboard as regards the quality of the justice system relate to the lack of information and communication technologies, the lack of ICT case management systems and the lack of standards on timing. Cyprus also ranks poorly in relation to the World Bank (Doing Business Report), indicator “Enforcing a Contract”, reflecting the fact that the lack of efficiency in the judicial system also impacts adversely on the business environment.

An in-depth Functional Review of the courts system in Cyprus was carried out in 2017 through technical assistance from the Structural Reform Support Service of the European Commission. According to the study, the weaknesses/inefficiencies in the justice system stem mainly from the following factors:

Complex outdated procedural rules: The Rules of Civil Procedure date back to 1958 and with a few exceptions have not been revised since. They are written in the English language, and subsequent amendments have been made in Greek resulting in a set of rules available partly in each language. There are no standardised written procedures or guidelines to complement the rules of court, and therefore procedures and rules are being applied inconsistently. There is widespread agreement amongst stakeholders that the existing rules are outdated, prone to abuse and a contributory factor to delays.

Absence of ICT tools: The courts system is almost entirely based on manual and paper-based systems, which were introduced in the 1950s, with only rudimentary ICT facilities in place. The absence of an electronic register means that case management is unwieldy and difficult. Up-to-date statistical and management information on the progress of cases and output performance is not readily available. The paper-based systems are particularly vulnerable to disaster such as flood or fire as, by their very nature, they do not easily lend themselves to back-up.

Weaknesses in management: Inadequate and outmoded structures, whereby the Supreme Court, in addition to its critical legal roles and responsibilities as the highest court on the land, also has overall responsibility for the effective and efficient management and operations of the courts. The current system fails to provide an adequate infrastructure for the efficient and effective administration of justice. The system is characterised by insufficient procedures, processes and planning e.g. the lack of active management of cases through the system and by an almost complete lack of supporting ICT systems.

Justice Reform Programme: The Government, acknowledging the underlying inefficiencies of the judicial system, has embarked on a very ambitious and holistic Reform Project, which aims at building a modern and efficient system for administering justice. Based on the recommendations of the Functional Review Report, a detailed action plan for judicial reform has been prepared, the implementation of which is currently ongoing. Reforms cover, inter alia, important aspects of the judicial system, such as the restructuring of the Courts including the separation of the Supreme Court, the establishment of a new Second Tier Court of Appeal and other specialised courts (Commercial, Administrative Court, Administrative Court for Asylum Seekers), the restructuring of the composition of the Judicial Council which appoints and promotes judges and the establishment of new criteria for the recruitment and promotion of judges, the revision of the Rules of Civil Procedure, addressing the of backlog of cases, enhancing the administrative capacity of courts through the recruitment of additional judges, the establishment of a Judicial Training School formalising and extending training for Judges, Prosecutors and Court staff, the introduction of modern IT systems and processes and the establishment of new Court Service for

the efficient management of the Courts. A Reform Unit has been established headed by a Director of Reform, a former judge of the Supreme Court, to oversee the reform agenda.

Objectives

The overall aim is to increase the effectiveness and efficiency of the justice system, accelerating the delivery of justice and addressing the serious problem of backlog of cases. The reforms included under this subcomponent are interlinked, thus forming parts of a coherent plan, with synergies between them. For example, through the establishment of an efficient and independent Court Service the management structure of the courts and administrative processes of registries will be modernised and strengthened. Bringing the Cypriot courts at pace with technological development through the introduction of e-justice and Digital Audio Recording, the introduction of modern Rules of Civil Procedure and modern case management methods, are all vital components for the efficient operation of the New Court Service. Training of Judges on the implementation of the new Rules and the new e-Justice system, are a prerequisite for the successful implementation of the reforms. Ultimately, the reform programme will strengthen the justice system and contribute towards providing uninterrupted and prompt access and delivery of justice and upholding the Rule of Law, thus enhancing the economic and business environment.

CSRs addressed

Reforms /Investments	Year / CSR Numbers Recitals	Justification
Reform 8: Efficiency and Functionality of Justice	CSR 5 2019 CSR 4 2020	To increase the effectiveness and efficiency of the justice system, accelerating the delivery of justice and addressing the serious problem of backlog of cases. The reforms included under subcomponent 3.4.3 are interlinked, thus forming parts of a coherent plan, with synergies between them. To contribute towards improving the business environment.
Reform 9: Digital transformation of courts	CSR 5 2019 CSR 4 2020	To increase the effectiveness and efficiency of the justice system, accelerating the delivery of justice and addressing the serious problem of backlog of cases. The reforms included under subcomponent 3.4.3 are interlinked, thus forming parts of a coherent plan, with synergies between them. To support digital and green transition and contribute towards economic resilience.
Investment 7: Training of judges	CSR 5 2019 CSR 4 2020	To increase the effectiveness and efficiency of the justice system, accelerating the delivery of justice and addressing the serious problem of backlog of cases. The reforms included

		<p>under subcomponent 3.4.3 are interlinked, thus forming parts of a coherent plan, with synergies between them.</p> <p>This is a prerequisite for the successful implementation of the reforms under subcomponent 3.4.3.</p>
Investment 8: Upgrading the infrastructure of Courts	<p>CSR 5 2019</p> <p>CSR 4 2020</p>	<p>To increase the effectiveness and efficiency of the justice system, accelerating the delivery of justice and addressing the serious problem of backlog of cases. The reforms included under subcomponent 3.4.3 are interlinked, thus forming parts of a coherent plan, with synergies between them.</p> <p>Providing functional court buildings is a prerequisite for the efficient delivery of justice.</p>

Reforms

- **Reform 8: Efficiency and Functionality of Justice**
 - **Project 1: Eliminating the backlog of cases:**

Analysis and context

The serious backlog of cases which is pending before the courts, places a heavy burden on the functioning of the courts, curtailing their performance. The problem is more acute in civil cases where the length of delay can be up to 7 years at first instance level and up to 6 - 7 years on appeal, thus making a total of 15 years delay which is totally unacceptable by any standards.

The inefficient and outdated Civil Procedure Rules, the absence of an efficient case management system and the lack of ICT tools, are factors affecting the efficient operation of the system.

The reduction in the backlog of cases is an important component of the reform process, impacting on the successful implementation of other reforms, such as the implementation of the new Rules of Civil Procedure.

The project for the elimination of backlog has been initiated some three years ago with the provision of a significant number of new posts for judges, support staff and court buildings, prerequisites for the implementation of the project. Progress so far has been limited.

To address the problem of backlog of first instance cases, the capacity of the Courts has been enhanced through the recruitment of additional judges. A pilot project has been running in Paphos since September 2020. The project will be expanded to cover the backlog in all other district courts. To that effect the Supreme Court is currently in the process of recruiting additional judges and finding new Court rooms. The new taskforce of judges will be led by a Senior Judge.

In order to give impetus to the implementation of the project, an action plan will be prepared for expediting the determination of the cases, setting specific annual targets. To facilitate the process, an amending legislation has been drafted extending the scales of district court judges (district court judges up to €500,000, senior district judges up to €1mIn) in order to add flexibility to the system.

Once the new second-tier Court of Appeal is established, a detailed action plan will be made which will provide for the determination of the serious backlog of appeals, which are now pending before the Supreme Court.

Implementation

A taskforce of judges will be set up for the determination of the backlog of cases. A Supreme Court Judge has been assigned as project manager who will oversee the implementation of the project on the basis of an Action Plan that will be prepared.

Target population

Citizens and businesses benefiting from faster delivery of justice, Judges and Court staff from enhanced efficiency in the justice system.

Timeline

Q2 2024 - Reduction of the backlog of cases and appeals pending for over two years before the District Courts and the Supreme Court by 20% from the 31st December 2020 level, as verified by an Annual Progress Report. The backlog in the baseline year 2020 was as follows: 24.777 Civil cases pending before District Courts for over 2 years and 2,887 Appeals pending before the Supreme Court (2.222 civil appeals and 665 appeals on administrative law).

Q2 2026 - Reduction of the backlog of cases and appeals pending for over two years before the District Courts and the Supreme Court by 40% from the 31 December 2020 level, as verified by an Annual Progress Report. The backlog in the baseline year 2020 was as follows: 24.777 Civil cases pending before District Courts for over 2 years and 2,887 Appeals pending before the Supreme Court (2.222 civil appeals and 665 appeals on administrative law).

➤ **Project 2: Introduction of the New Rules of Civil Procedure:**

Analysis and context

The current old and outdated Rules of Civil Procedure are a serious contributory factor to delays. There is agreement amongst all stakeholders that Rules require a fundamental review so that the hearing of cases is conducted in a modern and efficient way in order to deliver a less costly, more accessible, and more timely service to parties. With the technical assistance of the EC, a project was carried out by a team of experts headed by Lord Dyson which drafted the new Rules in English (“Guiding Drafts”). The Guiding Drafts were approved in principle by the Supreme Court.

Through a new project with the financial support of the EC, the “Guiding Drafts” have been translated into Greek and missing chapters and forms were also drafted afresh. The translated rules have been reviewed by the Rules Committee appointed by the Supreme Court and underwent consultation with the Judges’ association and the Bar Association.

The objective is the timely introduction of the new Rules of Civil Procedure, implemented in a uniform manner by all judges, lawyers and court staff. Following the assessment of comments received by all stakeholders, the Rules will be completed and adopted by the Supreme Court. Importantly, the date on which the new Rules will enter into force will also have be decided

In order to safeguard that the new Rules are applied uniformly and in accordance with the overriding considerations, extensive training of judges, lawyers and court staff will be organised whilst relevant explanatory manuals will also be developed. A communication and strategy will also be implemented, in accordance with an ongoing project funded by the EC. The introduction of the new Rules will no doubt enhance considerably the efficient determination of cases and will be an obstacle to the creation of a new backlog of cases in the future.

Implementation

The New Rules of Civil Procedure will be introduced and implemented by the Supreme Court.

Target population

Citizens and businesses benefiting from faster delivery of justice and lawyers, judges and court staff from modern unambiguous Rules.

Timeline

Q3 2023 - Implementation of the new Rules of Civil Procedure for the new cases submitted to the court as of 1st September 2023. The new Civil Procedure Rules will be published in the Official Gazette by Q1 2022, however specifying that they will become effective for the new cases submitted to the Courts as of 1st September 2023.

Project 3: Establishment of an efficient Court Service and Re-engineering of Court Registries:

Analysis and Context

The existing management structure of the Courts was introduced in the 1950s and basically remained unchanged with the result that it can no longer efficiently cope with the new challenges of society and the economy for speedy and efficient justice. The management and administration of the courts is characterised by insufficient procedures and processes, e.g. an almost completely manual system in the registries with little or no use of ICT; lack of management information and analysis; lack of active management of cases through the system; poor management of courtroom and other resources; lack of structured liaison with other Ministries and Departments that provide critical supports to the courts and weak communication with external stakeholders and court users.

There are now major projects and developments under way, such as the E-Justice and the implementation of the new Rules of Civil Procedure, that will require significant change in the way the courts are managed and operate. The capacity must be in place to fully exploit the potential, arising from these initiatives.

The objective is the establishment of an efficient Court Service, which will undertake all aspects of management, administration and support of the courts. The establishment of an efficient Court Service was one of the recommendations of the Functional Review conducted with EC funding. As a result, the Supreme Court obtained further technical assistance to conduct a new specialised study for the creation of the new Court Service. The new project (SRSP4) commenced in 2021 and will cover, inter alia, (a) the organisational and governance structure of

the new Court Service, (b) re-engineering of procedures (c) staffing requirements (d) transitional arrangements for the establishment of the new Court Service.

Implementation

Following completion of the study, stakeholder consultation will be carried out before the relevant legislation is drafted for the new service and the necessary schemes of service for new posts proposed are prepared.

Target population

Citizens and businesses benefiting from faster delivery of justice, lawyers, judges and court staff benefiting from more efficient procedures

Timeline

Q4 2025.

Project 4: Increasing the specialisation of courts and judges:

Analysis and Context

The complexity of cases in the modern business environment necessitates specialisation, in civil, criminal and administrative law. The specialisation of courts and judges is a modern tool in the administration of justice in most jurisdictions, as it is considered that it enhances the quality and efficiency of justice.

In order to increase the specialisation of courts and judges, a study is necessary to be conducted which will provide for the overall specialisation of the courts and how the existing system can transform into various divisions, starting from first instance courts up to the Court of Appeal. The study will have to look at the best practices that exist in other European Countries. The implementation of this recommendation will allow courts of special jurisdiction to be created and judges to become experts in the area of law they choose to serve.

The specialisation is required not only as a modern tool for the efficient administration of justice but is also required by the Country Specific Recommendation of 2019.

Implementation

The study will be carried out by experts who will be selected by the Supreme Court through a tender procedure and will be financed through the National Budget.

Target population

Citizens and businesses benefiting from enhanced quality and efficiency of justice and judges through enhanced expertise and knowledge in specific areas of law.

Timeline

Q4 2024

• **Reform 9: Digital transformation of Courts**

➤ **Project 1: Introduction of e-justice:**

Analysis and Context

The operations of the Courts are almost entirely based on manual and paper-based systems, with only rudimentary ICT facilities in place. In the 2020 EU Justice Scoreboard Cyprus scored poorly in the area of providing statistical information about the justice system to the public and other court users.

The absence of IT-based case filing and tracking systems led to cumbersome procedures, for example the need to attend at the court office to initiate a case, and to file documents, whilst file management, monitoring of compliance with directions and timescales and case retrieval is unwieldy. From a management perspective, up-to-date statistical and management information is not readily available, thus rendering the management of systems, allocation of cases, monitoring of trends and evaluation of performance difficult. A further problem relates to the huge demands for storage space, which is already a big challenge, especially at the Nicosia District Court. Additionally, paper-based systems are particularly vulnerable to disaster such as flood or fire as, by their very nature, they do not easily lend themselves to back-up.

To address these problems, a project is currently underway for the implementation of a holistic e-justice system. A public tender was awarded in August 2020 to IBM Italia Spa and the contract was signed in September 2020. The agreed duration of the project has been defined for 156 months, and it is estimated that the System installation and Pilot Operation will start 15 months counting from the signing of the contract.

Due to the disruption caused to the operations of the court by the pandemic, a decision has been taken for the implementation of an interim solution, aimed to address the most pressing needs of the judicial system, namely basic features such as case registration, payment of relevant fees, communication of internal and external users of the system. The interim solution is expected to be fully operational in April 2021.

Unquestionably, the most important challenge is the adoption of the holistic system of e-justice, as well as the needed cultural change, for all stakeholders to work in the new digital environment.

This is a highly complicated and demanding project, not only in terms of technological infrastructure and skills required, but also as regards the imperative need for change in processes and procedures and most importantly, culture. In order to effectively address all these parameters, all stakeholders (both internal and external users), from both the public and the private sector, need to work closely together to fully understand the many requirements and functionalities of the system, as well as identify and mitigate the effect of all challenges and barriers related to its successful implementation.

E-Justice is widely considered key to streamlining and expediting justice. The project currently under implementation is a fully functional, fully fledged digital solution aimed at improving the operations, processes and management of the judicial system, as well as its interactions with the public, addressing existing inefficiencies and delays.

Besides the courts, access will be provided to other internal users which include the Law Office of the Republic, the Police and other Governmental authorities, as well as external users, which include law firms and other private sector entities including individual citizens. It is a highly complicated project but one with high added value and impact for the Cypriot society. The implementation of e-justice will introduce Case filing and payment, case categorisation, Case searching, Document production and management, tracking and monitoring systems to support the streaming of cases, monitor compliance with orders and protocols and manage allocations of cases to hearing, Court Calendar, Decision execution and management, Case Closing and Evidence management. The system will also allow for the collection of statistical data in relation to outputs, a valuable input for the efficient administration of justice.

By simplifying the filing, control of and access to legal documents, monitoring cases can be easier, facilitating the work of the judiciary. As a result, a more efficient delivery of justice will be achieved, minimising time and administrative costs, while increasing transparency and quality of output. Most importantly, it will enhance and accelerate the service delivery to the public, minimising the need for on-site visits, and increasing confidence in the system and state institutions as a whole. A very important element of the project is the fact that it includes a business continuity plan, building a shield against future crises or adverse situations.

The covid-19 pandemic necessitated the implementation of an interim digital solution until the full-fledged system described above is fully functional. This interim solution, the mini-eJustice solution does not only aim to cover the basic needs between 2020 and 2022, until the fully-fledged system will be fully functional, but it lays the foundations for a smoother transition to the new digital era in the field of justice, in addition to addressing early on possible impediments/risks that would otherwise arise during the implementation of the permanent solution.

The mini-eJustice system also provides for the creation of electronic case files, accessible to beneficiary users either for case management or case monitoring, while facilitating a two-way communication between internal (courts and court registrars) and external users (lawyers, law firms and citizens). The mini-eJustice is at the final stages of implementation and is expected to be fully available by end April 2021. Since the middle of December 2020, the system is in a trial phase.

Implementation

The web-based Court Administration System will be managed by the contractor for a period of 6 years with the right of renewal for an additional period of 4 years. As part of the project, the contractor will provide services and equipment including the configuration of Computer Rooms in the Courts' premises, in order to function as Data hosting Centres. The contractor will provide user support services (helpdesk) and training of the personnel of the Courts thus providing a comprehensive solution.

More specifically, the contractor will provide the software, hardware, network/communication equipment to the Courts, as a Service, on a monthly basis. The Services to be provided by the contractor as well as the quality criteria are defined in the Service Level Agreement. It is noted that this service delivery model is in line with the new policy established by the Deputy Ministry of Research, Innovation and Digital Policy, namely the infrastructure as a service model. The Government has the option to purchase the system, before the expiration of the contract for a predefined amount, specified in the terms and conditions of the contract.

The DMRID will adopt an as-a-Service aaS model (Infrastructure as a Service, Platform as a Service, Software as a Service) across government to ensure that the public sector can refresh their IT systems more quickly and upgrade to new technologies more easily. In this new method for the development of IT systems, the Contractor (Vendor) will provide the hardware and software as well as operational/ support services (backup, replacement of equipment, maintenance, etc), and the Government will pay a fee (annual and/or as agreed) to the Contractor for the provision of the said services. The framework for the provision of these services will be governed by a Service Level Agreement (SLA) for a certain number of years, some of which fall under the period of the RRP while for the remaining period the fee will be covered by state funding, allowing also for the distribution of the investment cost over several years and thus better management of public funding. The contractor will have full responsibility and that will release resources from the DMRID.

The project, due to its technical nature, will be co-ordinated by the Deputy Ministry of Research, Innovation and Digital Policy working in close liaison with the Supreme Court.

Target population

Citizens and businesses benefiting from faster delivery of justice, and lawyers, judges and court staff benefiting from more efficient procedures.

Timeline

Q4 2022 - Completion of development and installation and go-live of the e-justice and completion of on-site operational support of the i-justice system.

➤ **Project 2: Introduction of Digital Audio Recording (DAR):**

Analysis and Context

Stenography is the traditional means of keeping minutes in Courts. Due to the limited number of stenographers and delays in the preparation of minutes and the subsequent negative impact on the effective conclusion of the hearings, the Supreme Court has signed an agreement with a private company for the provision of steno typing services for a period of ten years. This service provides faster and more effective preparation of minutes for the Courts than traditional stenography. However, it is a costly procedure and the Courts are dependent on one provider with limited capacity in providing additional steno typists to cover increased demands. The dependency on one private provider is considered a high-risk management and the courts could be exposed if the company goes into liquidation.

According to the experts that conducted the study on the Functional Review of the Courts in 2017/8, stereotyping is at variance with common practice in other advanced jurisdictions, where digital electronic recording systems have become standard practice. They recommended the introduction of a digital audio recording as a means of keeping minutes of court hearings. According to the experts, DAR ensures a cost-effective timely preparation of minutes, together with a consistently high level of quality of the court record.

The implementation of the Digital Audio Recording of court proceedings, will allow for consistent and timely production of transcripts, as well as the replaying of evidence in court, should the need arise. It will also facilitate accurate transcript management and eliminate the current dependency on individuals to produce transcripts which carries the risk of human errors. In addition, digital records of proceedings eliminate the risk of destruction associated with paper-based transcription systems. The cost of the system will be substantially lower and will allow for expandability when required to cover increased needs/ new courts. The DAR shall integrate with the e-Justice system in order to provide access to proceedings per case.

Implementation

The Project will be coordinated by the Deputy Ministry of Research, Innovation and Digital Policy working in close liaison with the Supreme Court. A Project Action Plan has been prepared specifying the functionality requirement of the system. The contractor will be selected through a tender procedure. As part of the project, the contractor will provide a comprehensive solution - services and equipment. The Project Scope includes the procurement of DAR as a Service, that includes the following: Construction (Building works to improve the sound quality of Court Rooms), networking, DAR Solution (necessary devices in courts providing audio recording and digital archiving of court proceedings), training, operational support including helpdesk.

Target population

Citizens and businesses benefiting from faster delivery of justice, lawyers, judges and court staff benefiting from more efficient court procedures.

Timeline

Q1 2025 - Completion of and successful roll-out of Digital Audio Recording (DAR) in Court Proceedings

Investments

- **Investment 7: Training of Judges**

Analysis and Context

The EU Justice Scoreboard has consistently highlighted the lack of training for the judiciary in Cyprus. Reference to the low level of training and lifelong learning for judges is also included in

the recital of the CSR for 2019. Law (1)/2020 which was enacted in 2020, provides for the establishment of a Judicial Training School. The Supreme Court has recently appointed the first Director and Board of the School in accordance with the Law.

The newly established Judicial Training School of Cyprus will in the coming years undertake to fill the gap in judicial training. Its first priority would be to train judges, lawyers and courts staff on the new Rules of Court that are to be introduced. The training is expected to concentrate heavily on the new Rules of Civil Procedure, case and time management which will also assist backlog judges. Other areas of training would be EU Law, induction courses for new judges, mentoring of judges, judgecraft courses, acquisition of new skills, especially digital skills and change management training for senior management and court staff. In addition, the School would have to organise the attendance of Cypriot Judges to European seminars organised by EJTN, ERA and the Council of Europe. The newly established School of Judicial Training will also have to acquire the necessary infrastructure and software in order to be able to deliver online training.

Implementation

The annual training programmes will be prepared and implemented by the Judicial Training School which has been recently formalised through the enactment of the relevant legislation.

Target population

Judges, lawyers and court staff whose skills and knowledge will be enhanced through the training programmes.

Timeline

Q4 2023 - At least 110 (out of 130) judges complete annual trainings on New Civil Procedure Rules and/or other judicial trainings on various legal topics and judicial skills organised by the Cyprus School for Judicial Training according to the training needs of the judiciary and guidelines from the EC.

Q4 2025 - At least 110 (out of 130) judges complete annual trainings on New Civil Procedure Rules and/or other judicial trainings on various legal topics and judicial skills organised by the Cyprus School for Judicial Training according to the training needs of the judiciary and guidelines from the EC.

• **Investment 8: Upgrading the Infrastructure of Courts**

Analysis and context

Inadequate court buildings, both in terms of quantity and quality, is another source of inefficiencies of the Judicial System of Cyprus. The lack of efficient premises is more acute in Nicosia, which has the highest number of cases and the bigger workload, and where the courts are older and situated in different buildings, scattered in the capital. The fact that the courts are scattered, the lack of adequate parking places and road-traffic, affect negatively the operation of the courts. Similarly, the Famagusta district court is currently hosted in the Larnaca District Court, which is not conducive to the efficient working of the court.

Furthermore, the size and of the current Court Buildings do not allow any expansion and cannot support the operation of new courtrooms nor the recruitment of more Judges and personnel which is especially detrimental to the efforts of eliminating the backlog of cases.

The Government recognises that an important prerequisite for the implementation of the reform agenda is the provision of adequate and modern facilities in order to ensure the safe and efficient functioning of the courts. To this end, a very elaborate and expensive court building programme has been prepared and is currently being implemented that prioritises needs, ensuring that the courts will, in the short-medium term, have appropriate buildings. A major project that is

currently under preparation is the building of a new “Central Court” as a comprehensive building complex to house all courts in Nicosia.

Other projects to complement the building programme relate to the extension of the Famagusta District Court building in order to create a fully-fledged court, trying in addition to criminal cases also civil, small alterations to the Limassol and the Larnaca District Court buildings which will facilitate the project for the clearance of the backlog and the renovation and remodelling of an old building purchased to provide additional court space in Nicosia, next to the Supreme Court of Cyprus.

Implementation

Court renovations are co-ordinated by the Department of Public Works of the Ministry of Communications.

Target population

Citizens, businesses, lawyers, Judges and court staff who will benefit from more functional court buildings.

Timeline

Q4 2021 - Completion of the extension of construction of the Famagusta District Court, as verified by the issuance of taking-over certificate.

Subcomponent 3.4.4: Fighting corruption:

Main challenges

Corruption is one of the greatest threats to the well-functioning of the state, hence it is necessary to support all relevant public and private stakeholders in the fight against it, through the successful and coordinated implementation of an integrated national strategy plan.

«The perception of corruption remains high (Transparency International, Justice Scoreboard, Rule of Law report), including among business representatives. The pandemic crisis increases the risk of corruption practices. There are increasing concerns that corruption may significantly undermine the functioning of the administrations and enable organised crime, negatively impacting investment and other business decisions.» The Government of Cyprus has established a sound legal framework for combating corruption and is constantly working to improve and modify its laws and procedures. In order to address the problem of corruption through a centralised and coordinated approach, and in order to promote the various occasional and individual actions through a global approach, the Government developed, through consultation with all relevant partners, an integrated national strategy that addressed, both prevention and suppression, of the phenomenon of corruption, aiming, at the same time, to re-build public confidence and trust in government and public institutions.

The slow pace of reforms’ implementation in this area, the lack of adequate understanding and knowledge on corruption issues, as well as the insufficient information provided to the public regarding the progress and outcome of investigations and other measures taken against corruption, are affecting citizens’, businesses’ as well as civil servants’ trust in administration with consequent negative impacts in the social life, the operation of the Public Service and the business environment. These deficiencies and their negative impacts are also reflected in high levels of perceived corruption for the country, according to international indices.

Objectives

The swift implementation of the National Horizontal Action Plan against Corruption (in order to implement the National Anti-Corruption Strategy), aims to achieve greater coherence to the government’s efforts and ensure that future actions to address corruption are collective and

organised. The objectives therefore of the National Anti-Corruption Strategy, are summarised as follows:

- to assess the range of current anti-corruption activities through an analysis of the prevailing situation,
- to identify high-risk areas of corruption and influence vulnerabilities in both the public and private sectors in order to create preventive and combat mechanisms,
- to increase protection mechanisms against corruption and to strengthen ethical principles and values in key institutions,
- to restore and re-establish full transparency with a view to combating money laundering, bribery, and related corruption acts,
- to define the priorities
- to coordinate the actions to be taken by the government to prevent corruption.

CSRs addressed

Reforms /Investments	Year / CSR Numbers Recitals	Justification
<p>Reform 10: Improving the legal and institutional framework for fighting corruption</p>	<p>CSR 5 2019 CSR 4 2020, Recital 31</p>	<p>Draft laws for the establishment of a new independent anti-corruption agency and whistle-blower protection have been submitted to the parliament but are yet to be adopted. These laws would help to strengthen the national anti-corruption framework. The anti-corruption reforms should be accelerated through the swift implementation of the anti-corruption Action Plan.</p> <p>The training and awareness campaign' aim is at educating and training civil servants and employees of the wider public sector as well as people employed in the private sector on all kinds of issues concerning corruption.</p> <p>The anti-corruption awareness campaign aims to change society's attitude and perceptions on relevant issues, such as reinforcing society's sense of the need for sound management and accountability, encouraging society to resist and prevent corruption and enhancing the participation of non-governmental agencies.</p>
<p>Investment 9: Aid Scheme for the private and public sector for certification with ISO 37001 (Anti Bribery)</p>	<p>CSR 5 2019 CSR 4 2020</p>	<p>Provision of incentives to the private and public and broader public sector as well as Local Authorities for the adoption and implementation of ISO 37001.</p>

		<p>The benefits of ISO 37001 relate to transparency, the reduction of bribes, the foundation of an ethical business culture, the building of trust in maintaining reputation, preventing financial losses, increasing job efficiency and creating confidential communication channels for employees.</p>
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Reform

- **Reform 10: Improving the legal and institutional framework for fighting corruption**

Analysis and context

This reform is two-fold.

The first part (*Setting up of an Anticorruption Agency*) will be implemented through the passing of several legislative proposals, currently being discussed in HoR as well as the setting up of the Anticorruption Agency. More specifically the pending legislative proposals are:

Bill entitled “The Establishment and Operation of the Independent Authority against Corruption Law”: One of the fundamental principles of the National Strategy against Corruption was the necessity to establish an independent Anti-corruption Authority as the agency which will coordinate the efforts of all bodies engaged in the fight against corruption, as well as supervise the timely implementation of actions by the different competent Services.

In this framework and following the recommendations received by European and International Organisations, the Government prepared the Bill entitled “The Establishment and Operation of the Independent Authority against Corruption Law” which was submitted to the House of Representatives on 15 March 2019, after it had gone through public consultation and approval by the Council of Ministers. The examination of the Bill by the pertinent Parliamentary Committee commenced on 4 March 20 and is expected to be concluded on the 26th of March 2021. Accordingly, the bill will be presented before the Plenary of the House of Representatives for enactment before the dissolution of the present Parliament.

The Authority will aim to take the necessary initiatives and actions to ensure the coherence and effectiveness of the actions of the public sector, the broader public sector and the private sector in order to ensure the prevention of corruption as well as potential acts of corruption.

The Authority satisfies all the elements of independency required by European and International Organisations as well as the substantial elements and powers in order to fulfil its mandate.

Following enactment, the Government will appoint the members of the Authority, that is the Commissioner of Transparency and the two Deputies Commissioners. All other actions for the setting up of the Office of the Authority will be promoted, including the hiring of administrative personnel and experts, and renting of office space.

Bill entitled “The Transparency in Public Decision-making processes and Relevant Matters Law of 2018”: The objective of the Bill is to achieve enhanced transparency in public decision-making processes, in order to prevent the creation of conditions that allow the emergence of corruption phenomena.

In line with the national strategic objectives, the policy making process will be improved by enhancing the transparency and predictability of the decision-making process and the involvement of stakeholders. Enhanced transparency will be achieved by creating the obligation

to publicise contacts made between persons interested in being involved in public decision-making procedures and officials or members of the State service or of the wider public sector or with employees for the benefit of officials who, by their very position, have competence or possibility of initiating such procedures or formulating their content or contributing or determining the final outcome of such procedures. Information on such a contact, as well as its content and purposes, shall be officially recorded and be publicly available.

The Bill was initially submitted to the House of Representatives in June 2019 after it had gone through public consultation and approval by the Council of Ministers. Discussions at the Parliamentary Committee were initiated in September 2019 and after various amendments by the Ministry of Justice and Public Order it was resubmitted and discussed by the pertinent Parliamentary Committee in December 2020. This bill is interrelated to the bill on the establishment of the Independent Authority, therefore both bills are expected to be submitted before the Plenary for adoption by April 2021.

Bill entitled “The Reporting of Acts of Corruption (Supplementary Measures for Protection and Leniency) Law of 2017”: The protection of whistle-blowers is sought to be achieved through a Bill entitled “The Reporting of Acts of Corruption (Supplementary Measures for Protection and Leniency) Law of 2017”.

The bill provides supplementary provisions on the protection of persons reporting acts of corruption both in the public and the private sectors (whistle-blowers, persons not involved in the acts), i.e. further to the protection already provided for in the Protection of Witnesses Law 95(I)/2001.

Also, other measures of leniency are included for those who are involved in acts of corruption, but voluntarily report to the police and/or offer cooperation with the authorities resulting in the full investigation and prosecution of the case (for instance, the maximum penalty on conviction for them is half of the one provided for the offence).

The bill was discussed extensively at the pertinent Parliamentary Committee, on several occasions. However, in order to incorporate a detailed mechanism for reporting such as provided for in the EU Directive on violations of EU Law, a comprehensive bill transposing EU Directive 2019/1937 was prepared by the MJPO, and following broad consultation with all stakeholders within the public and private sector and approval by the Council of Ministers, it was submitted to the House of Representatives.

Reinforcement and effective operation of the Internal Audit Units

Furthermore, among the new measures against corruption, announced by the President of the Republic along with the Minister of Justice and Public Order on 29 January 2021, is the substantial reinforcement and effective operation of the Internal Audit Units within all Ministries, Public Organisations, the broader public sector, the Independent Authorities as well as other bodies. In order to achieve that target, the Council of Ministers approved a comprehensive proposal by the Ministry of Finance which provides for the reinforcement of the Internal Audit Units in all the Ministries, the substantial reinforcement of the Internal Audit Service, the further reinforcement of the audit control system within the public service, the continuous training of the personnel, and the preparation of a manual of procedures by each Audit Control Unit separately, based on the standard manual to be prepared by the Audit Service.

Anti-corruption training

Finally, a new training cycle is about to commence. This include 10 training sessions for anti - corruption for a five years' period. The first session is programmed to take place in April 2021 and will be addressed to the Permanent Secretaries of the Ministries. In addition to this, an Awareness Campaign for Anti-corruption is also programmed to start which includes 15 events. The Campaign aims to raise awareness of society and to cultivate a consciousness of zero tolerance.

Specifically, the campaign will include targeted messages in cooperation with the media, the strengthening of cooperation between state and non-state actors in the field of education and enlightenment as well as the preparation and organisation of conferences and events to identify good practices to tackle corruption.

In addition to the above training, the second part of the reform (*Training and Awareness Campaign*) aims at educating and training civil servants and employees of the wider public sector as well as people employed in the private sector on all kinds of issues concerning corruption.

Relevant actions include the organisation of conferences, seminars and events for the Prevention, Investigation and Suppression of Corruption.

Moreover, this part aims at changing society's attitude and perceptions on relevant issues, such as reinforcing society's sense of the need for sound management and accountability, encouraging society to resist and prevent corruption and enhancing the participation of non-governmental agencies. Relevant actions include carrying out an awareness raising campaign aimed at changing society's attitude and perceptions on relevant issues, such as reinforcing society's sense of the need for sound management and accountability, encouraging society to resist and prevent corruption and enhancing the participation of non-governmental agencies. This is also one of the six pillars of the National Strategy Against Corruption.

Target population

Public, broader public and private sectors

Timeline

Q4 2021 - Entry into force of a law to protect whistle-blowers reporting fraud and corruption from internal sanctions.

Q4 2021 - Entry into force of the law on Transparency in Decision-Making and Related Matters, including provisions to prevent conflict of interest.

Q1 2022 - The Independent Authority against Corruption has been established based on the entry into force of the corresponding law and is operational.

Q2 2024 - 5 Anti-Corruption Public Awareness and 10 training events for the public, broader public sector and local authorities organised and completed.

Investment

- **Investment 9: Aid Scheme for the private and public sector for certification with ISO 37001 (Anti Bribery)**

Analysis and context

ISO 37001 is a recognised standard that sets requirements and provides guidelines for the creation, implementation, maintenance, review and improvement of an effective management system against corruption. Many organisations in both the private and public sector lack this accreditation which would contribute in the fight against corruption.

The Council of Ministers approved a proposal by the Ministry of Justice and Public Order for the provision of incentives to the private and public and broader public sector as well as Local Authorities for the adoption and implementation of ISO 37001.

The benefits of ISO 37001 relate to transparency, the reduction of bribes, the foundation of an ethical business culture, the building of trust in maintaining reputation, preventing financial losses, increasing job efficiency and creating confidential communication channels for employees.

Implementation

The amount of €2 mln will be provided by the Government for the implementation of grant scheme for a period of 5 years starting from the second half of 2021 until 31 March 2026. The cost of applying the standard relates to the cost of consulting services and the cost of certification. The project will be implemented by the Ministry of Justice and Public Order.

Timeline

Q2 2024 - At least 45 organisations ISO accredited for the Standard "ISO 37001 ANTI-BRIBERY MANAGEMENT SYSTEMS" due of the support granted.

Q4 2025 - At least 120 organisations ISO accredited for the Standard "ISO 37001 ANTI-BRIBERY MANAGEMENT SYSTEMS" due of the support granted.

8.3 Green transition dimension of the component

There are several reforms and investments maintaining a green dimension, either as a direct or indirect effect.

Direct effect:

- Investment 'Smart cities' falls under the measure field "011bis Government ICT solutions, e-services, applications compliant with GHG emission reduction or energy efficiency criteria", and includes the projects smart lighting, smart waste management, and smart parking. Contributions to these parts will have a significant reduction in greenhouse gas emissions while it will help optimising city's use of resources.
- Investment 'Regeneration and Revitalisation of Nicosia inner city' falls under the measure field "25 Energy efficiency renovation of existing housing stock, demonstration projects and supporting measures". This investment will include the renovation of existing high energy consuming building stock (old school & old derelict buildings in the inner city) to transform them into a University Department and students' accommodation units accordingly.

8.4 Digital transition dimension of the component

Digital transition lies in the core of many reforms and investments of the component aiming to enhance the usage of technology in public, local, and judicial administration.

- The reform "Digital transformation of courts" (011quater Digitalisation of Justice Systems) and "Strengthen the administrative capacity, and transparency through the professionalisation of public procurement and further digitalisation of its process" (11 Government ICT solutions, e-services, applications) aim towards the increase of production while minimising the need for paper. The reforms will offer digital solutions improving their operations, processes and management of their services.
- The investments "Digitalisation of the law-making process and the development of a comprehensive legislation drafting platform and integrated database" and "Enhancing e-system for issuing building permits" (11 Government ICT solutions, e-services, applications) will shift public administration further towards digital transition by promoting the use of electronic mediums over the traditional paper-based approach.

8.5 Do no significant harm

In all measures included in this component that foresee construction works and purchase of new equipment, machinery, vehicles etc., all procurement procedures will require compliance with the DNSH principle as explained in detail in the separate DNSH assessment of the corresponding measure. This will apply both for investments in the public sector and for financial support schemes to the private sector.

See separate assessment performed on this area included as ANNEX 3 - Assessment of the compliance of the Cyprus Recovery and Resilience Plan with the 'Do No Significant Harm' Principle.

8.6 Milestones, targets and timeline

The milestones and targets for the investments/reforms of this Component are presented in the attached table.

8.7 Financing and costs

The cost for each milestone and target is presented in the attached table.

8.8 Loan request (if applicable)

Investment 5 'Smart Cities' will be covered by loan.

Policy Axis 3 Strengthening the resilience and competitiveness of the economy

Component 3.5 Safeguarding fiscal and financial stability

9. COMPONENT 3.5 Safeguarding Fiscal and Financial Stability

9.1 Description of the component

Policy area/domain: Fiscal and Financial Stability

The aim of this component is to improve the resilience of the economy by safeguarding fiscal and financial stability, prerequisites the one of the other, their interrelations working through both direct and indirect channels. For example, the government may intervene precautionarily or at the onset of banking stress to prevent banking losses spilling to the rest of the economy. Even in the absence of direct fiscal cost, financial instability, in the form of high NPLs or more generally high indebtedness may impact public finances through low confidence hampering growth and resilience of an economy. Conversely, a sound fiscal policy contributes towards an accommodating macroeconomic environment which can impact the banking sector favourably. Similarly, a pro-cyclical fiscal policy can amplify economic booms and recessions intensifying the changes in the purchasing power of corporates and households, in turn impacting banks' balance sheets.

Safeguarding fiscal stability is critical to economic sustainability. Important elements to ensuring stability are continuously protecting tax revenues through maintaining a broad tax base, combating tax evasion, tax avoidance and aggressive tax planning; and also providing policy makers with comprehensive data in order to design a fair burden sharing tax system that avoids distortions on competition and the labour market. Based on the above and on the 2019 and 2020 CSR's, authorities are proceeding with measures to effectively tackle Aggressive Tax Planning. Reforms proposed are combined with investments that cover the upgrade and digitisation of the Customs Department and Tax Department. The new systems will increase efficiency and effectiveness of the relevant authorities, will simplify, automate and secure many processes, enhance transparency and provide data that may be used by policymakers and monitor closely the subjects to taxation.

Regarding financial stability the objectives are the removal of existing vulnerabilities affecting the banking sector relating to the crisis management framework, including in case of a potential government intervention, while addressing the remaining risk of distressed assets in banks' balance sheets. Moreover, actions are envisaged to contribute towards the reduction of high private indebtedness, which constitutes a long-run macroeconomic and financial imbalance in Cyprus. Last but not least, enhanced supervision in the non-bank sector also safeguards financial stability.

Reforms and investments:

Safeguarding financial stability / Completing the legal framework for Crisis Management for Credit Institutions

- Reform 1: Legal Framework for crisis management for credit institutions

Addressing legacy non-performing loans

- Reform 2: Framework and Action Plan for addressing NPLs

Preventing excessive private indebtedness

- Reform 3: Strategy for addressing inadequacies of the property transaction system (title deeds)
- Reform 4: New legal framework and System of exchange of data and credit bureaus
- Reform 5: Action plan for the development of a liability monitoring register

- Reform 6: Reinforcing and strengthening the Insolvency Framework
- Reform 7: Strategy for Combating Financial Illiteracy

Enhancing non-bank Supervisory Capacity

- Reform 8: Enhancing supervision of Insurance and Pension Funds
- Investment 1: Enhancement of the Supervisory Function of CYSEC

Safeguarding fiscal stability

- Reform 9: Improving tax collection and effectiveness of the Tax Department.
- Reform 10: Addressing Aggressive Tax Planning
- Investment 2: Modernisation of Customs and Electronic Payment System

Furthermore, reforms and/or investments under Component 3.3: Enhancing Business Environment, regarding (i) the modernisation of Companies Law, including insolvency for companies; (ii) the National Promotion Agency; (iii) the government-backed equity fund as well as (iv) privatisation of the Cyprus Stock exchange will have a complementary effect to the actions relating to financial stability of this Component. Actions regarding the reform on financial literacy will also be linked with Component 5.1. Education System Modernisation, upskilling and retraining in order to create synergies. Furthermore, issues of green taxation will be dealt under Component 2.1. Climate neutrality, Energy efficiency and renewable energy penetration.

Flagship initiatives: Modernise, Reskill and Upskill and Scale Up

Total estimated budget to be funded through the RRP: €44,5 mln

9.2 Main challenges and objectives

Main challenges and objectives - Financial stability

Most of the challenges addressed under this component stem from the CSR's 2019, 2020 but also derive from Regulation (EU) No 1176/2011 of the European Parliament and of the Council of 16 November 2011 on the prevention and correction of macroeconomic imbalances, and in particular Article 6(1).

Financial stability has a multitude of aspects involving all economic agents, with potential repercussions on the whole economy. The actions embedded within this Component concentrate on aspects identified as outstanding impediments to stronger financial stability and long-term growth in Cyprus: (i) the incomplete and inadequate framework for crisis management of banking institutions; (ii) the high level of non-performing debt both within and outside the banking sector; (iii) the private debt overhang in the economy; and (iv) the efficiency and effectiveness of the insurance and pension fund supervisors.

The first three challenges are closely interrelated. The higher the level of private debt the higher the level of non-performing debt; conversely, a high NPL level exerts upwards pressure to private indebtedness. Moreover, high level of distressed assets or high leverage (credit) on the banks' balance sheets poses a risk to financial stability. The fourth challenge, while not directly related to banks and credit, bears equal importance to the first three identified challenges in safeguarding financial stability. The supervisory capacity in the insurance and pension fund sectors faces shortcomings and requires upgrade in terms of size and know-how to match the increasing complexity of the underlying regulatory requirements.

The first challenge addressed is the completion of the framework for dealing with bank crisis management. The pending elements are twofold. Firstly, there is a need to complete the

landscape for dealing with the orderly insolvency of credit institutions while preserving financial stability. While Cyprus fully transposed the Bank Recovery and Resolution Directive (BRRD), establishing a framework for the recovery and resolution of credit institutions and investment firms, the national insolvency framework which applies for institutions not passing the Public Interest Assessment remains inefficient and is considered not fit for purpose. Essentially, the current framework follows a modified corporate insolvency regime, in fact leading to a lengthy bureaucratic process, that can be detrimental to financial stability in the event of the insolvency of a credit institution. The absence of a modern national bank insolvency framework poses a vulnerability to financial stability, should the need for an orderly liquidation arise. A comprehensive national bank insolvency framework could allow, for instance, for the tools as depicted in BRRD such as the sale of business tool and the creation of bridge institutions to be applied also to institutions not falling under the BRRD. Secondly, the government stabilisation tools, as depicted in the BRRD, provide for the possibility of government intervention in extraordinary situations in order to preserve financial stability. The national process for implementing this policy option is currently absent from the legislative framework of Cyprus, preventing the possibility of immediate utilisation of public resources on solvent entities in case of systemic stress

The second challenge, which has been an on-going policy focus in recent years, is the still high level of Non-Performing Loans (NPLs), both within and outside the banking sector. The Cyprus economy still records the second highest NPL ratio in the EU despite the substantial progress in recent years. By the end of June 2020, NPLs dropped down to €6,7 bln, from their peak of €27 bln in 2014, and stand at 13% of outstanding loans in the banking sector²². This constitutes the reduction achieved in Cyprus one of the highest in the EU during the respective period. The largest decline was recorded among corporates, while SMEs and households have recorded a more modest decline. This is likely due to corporates entering more easily into “large ticket” debt reducing transactions, but also due to SME and household loans collateralised by primary residences, constituting their resolution more limited in options and socially sensitive.

Figure 1: NPLs (including overseas operations), EUR bn



Source: Central Bank of Cyprus

NPLs are a risk for credit institutions as regards their capital position, in turn increasing their Minimum Requirement for Eligible Liabilities (MREL). The distressed assets furthermore weigh on banks’ profitability in an already very low interest environment. Moreover, despite outsourcing to specialised servicers, the mere existence of NPLs in the balance sheet encumbers credit institutions from focusing entirely on core banking activities and shifting resources to other challenges such as fintech competition.

Simultaneously, the effective management of NPLs outside the banking sector is another important aspect. In this respect, the supervision of credit-acquiring companies has been

²² Based on the definition of NPLs as used in the “Monitoring Report on Risk Reduction Indicators” (November 2020), available at https://www.consilium.europa.eu/media/46978/joint-risk-reduction-monitoring-report-to-eg_november-2020_for-publication.pdf

strengthened, through the issuing of three directives of the Central Bank of Cyprus²³, which regulate the licensing and governance of these entities. The new framework will facilitate the efforts, through a legislative proposal consisting of a package of 3 bills, to provide access to both credit acquiring companies and their servicers, to data regarding the creditworthiness and property of debtors.

Following the financial crisis in Cyprus that peaked in 2013, and as a response to the sizeable stock of bad private debt in the economy, the legal framework was completely revamped to provide the necessary toolkit in the NPL management, and to address structural characteristics of the Cyprus debt and property market. Given that due to the pre-crisis lending practice, loans were granted based on collateral value rather than ability to repay, the enforcement of debt collateral is central to the work-out of NPLs.

In 2015 the first major amendments were undertaken in the legal framework for collateral enforcement through property auctions of both household and business loans. The 2015 law modernised the foreclosure framework allowing for the quick initiation of foreclosure post termination status of a loan, introducing a creditor-led process without the involvement of government services, and expediting the process by establishing concrete deadlines for the various foreclosure stages. The law was overhauled in 2018 through fine-tuning and clarification of certain provisions and enhancing auction routes. Electronic auctions were subsequently introduced in late 2019.

As a result, the timeframe for foreclosure of collateral was brought down from previously around 10 years to less than 12 months, rendering it one of the shortest periods in the EU²⁴.

Recent amendments to the foreclosure framework that entered into force in June 2020, which cover a portfolio with specific characteristics as far as its collateral type and their open market value as well as if the foreclosure process has been initiated, have yet to be tested by creditors and courts but it is estimated that the majority of the NPL stock will not be affected, as, for most of the outstanding portfolio, legal and foreclosure actions had been initiated under the previous legal regime.

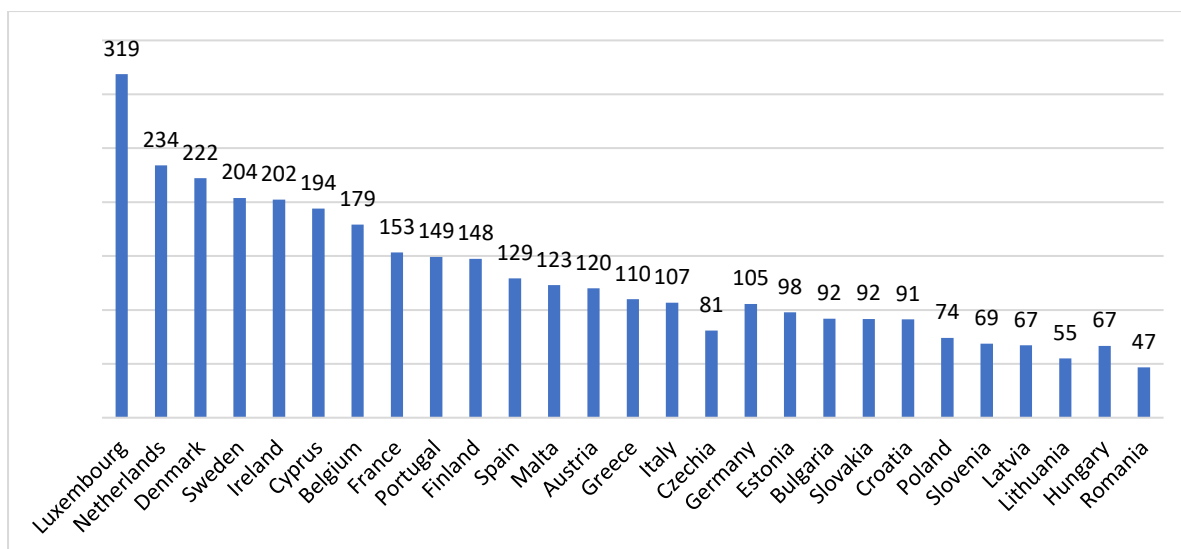
Even though foreclosures are an out of court process, dealing swiftly with disputes of creditors and debtors is crucial for ensuring the robustness of the framework. An amendment of the Court of Justice Law is central to government efforts to enhance the efficiency of the judicial system, while contributing to the objective of maintaining the stability of the legal framework for the enforcement of collateral.

The third challenge to be addressed relates to private indebtedness in Cyprus, which ranks among the highest in the EU. Despite the improvement in recent years, the private debt in Cyprus remains above the relevant threshold of the Macroeconomic Imbalance Procedure, which is set at 133% of GDP, even when accounting for the debt of so-called Special Purpose Entities with highly leveraged balance sheets but insignificant interaction with the local economy. A similar burden is depicted in other indicators such as the gross debt to income ratio for households. As evidenced empirically, high private indebtedness may depress savings, investment, and long-term growth prospects of a country.

Fig.2: Private indebtedness, % of GDP in 2019

²³ <https://www.centralbank.cy/en/licensing-supervision/credit-acquiring-companies>

²⁴IMF Country Report No. 18/337 (2018 Article IV Consultation)



Sources: Eurostat, Central Bank of Cyprus

Note: Data for Cyprus excludes the debt of Special Purpose Entities

The private debt overhang is the result of a number of structural reasons, for example the SME size of Cyprus enterprises, which led to nearly exclusive debt borrowing rather than equity financing. On the household side, the historical absence of social welfare nests has been a driver in prompting households to save but simultaneously borrow for mortgage or consumption. Last but not least, private indebtedness is partly also the result of loose attitudes, stances and knowledge in respect of financial matters such as debt, saving and consumption. As a result, the impact of low financial literacy is now evident in the household and SME indebted balance sheets. Indeed, the credit expansion that preceded the banking crisis in Cyprus may have its roots partly also in the low financial literacy among the population.

Policy solutions can hardly address a stock of debt accumulated over time, underpinned by structural features of the economy, without triggering financial stability distress. Thus, private indebtedness is expected to decline naturally over a long period of time, as households and corporates continue to deleverage and through GDP growth i.e., through both the nominator and denominator channels. Notwithstanding this, the reforms aimed to address the stock of NPLs will contribute towards the reduction of overall indebtedness as well.

At the same time though, in order to prevent a build-up of excessive new indebtedness over time, a number of reforms, aiming at improving the credit registry and financial literacy, are proposed which will proactively assist in the granting and obtaining of new debt by economic stakeholders.

The reforms are complementary to the measures already taken by the Central Bank of Cyprus following the banking crisis in 2013, namely the Loan-to-Value and Debt-Service-to-Income caps for new loans and an income rather than collateral-based new lending assessment.

Envisioned reforms, such as available property title deeds and efficient insolvency tools, are directed at assisting citizens once in debt difficulty to effectively resolve their debt. An underlying issue affecting both the property and the distressed debt market is the absence of defined property rights for an important segment of the property sector, owing to legal problems with property title deeds, in turn affecting loans collateralised by such properties. Indeed, attempts by creditors to manage non-performing collateralised loans through a sale or a debt to asset swap are often frustrated by difficulties with the issuance and transfer of title deeds.

Reinforcing and strengthening the insolvency framework is necessary in order to deal with the high private collateralised debt challenge. Even though the legal framework for insolvency was put in place in 2015 benchmarking best practices, the use of insolvency schemes and tools

remains limited. This is likely due to limited familiarity with this framework among professionals and debtors themselves, prompting the continuous use of liquidation and bankruptcy mechanisms rather than the utilisation of the relatively new insolvency practices.

Lastly, regarding the fourth challenge related to identified inadequacies of the supervision of insurance and pension funds and more specifically regarding the institutional governance and the adequacy of resources of the Insurance Companies and Control Service (ICCS) and the Registrar of Occupational Retirement Benefits Funds (RORBF) important reinforcement of the resources of the sector of insurance and pension funds supervision is necessary.

Main challenges and objectives - Fiscal Stability

On the fiscal front, the Cyprus economy faces challenges, exacerbated by the effect of the pandemic on public finances. In the context of the pandemic, the general government budget balance for 2020 is expected to record a substantial deterioration and reach a deficit of about 4.5% percent of GDP, after five consecutive years of fiscal surpluses. This stems both from the effects of the COVID-19 outbreak on the economy, as the baseline macroeconomic scenario suggests a negative growth rate of real GDP of about 5.5%, as well as from the support measures of a one-off nature, which target the current situation in the economy, with an estimated impact on the accounts of the General Government of about -4% of GDP.

The impact of the NHS on the government final consumption expenditure growth is estimated at around 9.7 p.p. for 2020. The provision for the health care sector to combat the pandemic, in the context of the measures taken by the government, also contributed positively to the growth of government final consumption expenditure by 1.1 p.p.

In 2021, the budget balance is expected to remain in deficit of about 4.7% of GDP, recording a positive deviation compared to the year before by 1.1 percentage points of GDP. The expected deterioration in the accounts of the general government, compared to a forecast of a much lower deficit during the preparation of the Budget 2021, is the outcome of the revised Budget voted by the Parliament end-January 2021 that included additional expenses related to the pandemic crisis, of about 1.5% of GDP, as well as additional expenditure through the Supplementary Budget early-April 2021, aiming to cover the needs for an extension of the special schemes of the government of about 1.1% of GDP. Thus, in addressing this challenge, making revenue collection more efficient and effective and also enhancing efforts against tax avoidance are fundamental. Furthermore, measures tackling aggressive tax planning, as mentioned in the CSR 1(2020) is essential to make tax systems more efficient and fairer, eliminating the spill-over effects that this may have between member states.

The Government's tax policy is an integral part of economic growth and an important goal is to ensure the implementation of a tax system that is fair, simple and adapted to developments in the new digital era. The reforms of the tax system have been continuous and challenging. Still, there are challenges to be addressed, in reaching the desired level of effectiveness and efficiency in the tax collection mechanism and the reduction of administrative burden. The investments proposed aim at further enhancing the administrative capacity of the Tax Department, so as to further improve its tax collection capability and reduce tax evasion by promoting tax compliance as well as developing new digital tools and improve information systems.

Securing Cyprus's fiscal position is an ongoing challenge and the reforms and investments related to this are a continuation of the Government's commitment, to safeguard the macroeconomic stability in order to facilitate growth and job creation, especially considering the economic developments of the last decade.

CSRs addressed

Reforms /Investments	Year / CSR Numbers Recitals	Justification
Financial Stability		
Reform 1: Legal Framework for crisis management for credit institutions	CSRs 2020, Recital 30 CSR 2 2019, Recital 9	Improve the resilience of the banking sector by introducing a framework for a coherent and concrete procedure for supporting credit institutions facing financial difficulties and facilitating their orderly exit from the market.
Reform 2: Framework and Action Plan for addressing NPLs	CSRs 2020, Recital 30, CSR 2 2019, Recital 9	Correction of the identified financial imbalances stemming from the legacy NPL by continuing efforts to improve the asset quality of banks and strengthening the working environment non-bank credit acquirers and credit servicers.
Reform 3: Strategy for addressing inadequacies of the property transaction system	CSRs 2020, Recital 30 CSR 5 2019, Recital 20	Set up a sustainable and reliable system for issuing and transferring property rights, which ensures that buyers who paid the full price of the property receive their titles quickly and without impediments.
Reform 4: New legal framework and System of Exchange of Data and Credit Bureaus	CSRs 2020, Recital 30	Improve the level of access to information that both creditors and debtors have in an effort to combat high private debt levels.
Reform 6: Reinforcing and Strengthening the Insolvency Framework	CSRs 2019, Recital 19, CSRs 2020, Recital 30	Strengthen and improve the insolvency framework through the implementation of actions proposed.
Reform 8: Enhancing supervision of Insurance and Pension Funds	CSRs 2019, Recital 9	Enhancement of administrative capacity of supervisors, for the benefit of financial stability and the interests of pension fund members and insurance policy holders
Fiscal Stability		
Reform 2: Addressing Aggressive Tax Planning (ATP)	CSRs 1 2019, Recital 8 CSRs 4 2020, Recital 26	Increase the effectiveness, efficiency and fairness of the tax system and tackle aggressive tax planning structures

9.3 Description of the reforms and investments of the component

Safeguarding financial stability / Completing the legal framework for Crisis Management for Credit Institutions stability

- **Reform 1: Completing the legal framework for Crisis Management for Credit Institutions**

Note: contributes to addressing recital 30 of Recommendation on a Council Recommendation on the 2020 National Reform Programme of Cyprus and Delivering a Council opinion on the 2020 Stability Programme on Cyprus. Intention would be to improve the resilience of the banking sector by introducing a framework for a coherent and concrete procedure for supporting credit institutions facing financial difficulties.

Also addresses the reference of Eurogroup Statement regarding Cyprus of 30th November 2020 on improving the resilience of the banking sector.

The main reform regarding bank crisis management in Cyprus was the transposition of the Bank Recovery and Resolution Directive by enacting the Resolution of Credit Institutions and Investment Firms Law of 2016 (22(I)/2016). Under this Law, burden-sharing concerning bank failure has been introduced shifting risk and losses to private creditors before the possibility of any public resources being used, and applicable to generally larger or important institutions passing the Public Interest Assessment. However, two important elements of the bank crisis management framework are considered inadequate posing risks to financial stability should a credit institution face stress.

- National insolvency framework for Credit Institutions

Analysis and context

The national insolvency framework for the liquidation of credit institutions, i.e. PART XIII of the Business of Banking Institutions Law 66(I)/1977, which is applicable, among others, whenever the public interest test for resolution of a failing institution as provided in article 32 of the BRRD Directive is not met, is considered inefficient, outdated and lacks the necessary flexibility and the tools needed by competent authorities for the effective liquidation of an insolvent credit institution. There is a need for the national insolvency framework for credit institutions to be reformed and modernised, in line with best practices. To this end, technical support was sought from the European Commission on the basis of the SRSP Regulation to contribute to institutional, administrative and growth-sustaining structural reforms in Cyprus, with the aim being the adoption end entry into force of a more effective insolvency framework for credit institutions.

The Project consists of a series of deliverables which will be completed with the delivery of a legal proposal.

- Government tools in preserving financial stability

Analysis and context

This reform concerns a new package of legislation, revoking existing obsolete pre-BRRD laws regarding crisis management (Laws 200(I)/2011 and 156(I)/2012) and laying the framework for government intervention in order to remedy a serious disturbance in the economy of Cyprus and to preserve financial stability in the banking sector.

Financial Stability Law

1. Precautionary capitalisation (article 18(4)(d) of Regulation 806/2014 or 32(4)(d) of BRRD) – either in the form of guarantees or injection of own funds or purchase of capital instruments

Financial Support in the framework of resolution Law

2. Government stabilisation tools for the purpose of participating in the resolution of an institution (article 19 of Regulation 806/2014 and 56 and 57 of BRRD)

The procedures for each different case, i.e., application by institution etc., opinion of Central Bank and issuance of decree by Minister/Council of Ministers, as well as any monitoring/reporting requirements will be laid out in the legislation.

The different conditions in case individual guarantees/guarantee schemes, injections or purchase of capital instruments are to be granted/made will be clearly set out, as well as providing for the possibility of granting either individual guarantees or setting up a guarantee scheme.

The following have been considered in the preparation of the legislation:

- Opinion of the European Central Bank of 3 February 2017 on liquidity support measures, a precautionary recapitalisation and other urgent provisions for the banking sector,
- Communication from the Commission on the application, from 1 August 2013, of State aid rules to support measures in favour of banks in the context of the financial crisis ('Banking Communication'),
- Italian legislation titled DECRETO-LEGGE 8 gennaio 2019, n. 1 (Raccolta 2019) Misure urgenti a sostegno della Banca Carige S.p.a. - Cassa di risparmio di Genova e Imperia²⁵.

The aim of the reform is to reduce financial stability risks by supporting banks in financial difficulty or facilitating their orderly exit from the market.

Target population

- Distressed Credit Institutions

Implementation

- Following legal vetting, the proposed legislation will be forwarded for approval by Council of Ministers and thereafter submitted to House of Representatives

Impediments

- Delay in legal vetting
- Stakeholders' involvement
- The enactment of the proposed Bill(s) into laws by Parliament.

Stakeholder Involvement

Cyprus Central Bank, DG Competition, European Central Bank, Association of Cyprus Banks, Single Resolution Board

Timeline

Q3 2022 - Draft Laws approved by Council of Ministers

Q3 2023 - Enactment of draft laws by House of Representatives

Addressing legacy non-performing loans

- **Reform 2 Framework and action plan for addressing NPLs**

Note: Recital 30 of Recommendation on a Council Recommendation on the 2020 National Reform Programme of Cyprus and Delivering a Council opinion on the 2020 Stability Programme on Cyprus. The intention is the correction of the identified financial imbalances stemming from

²⁵ <https://www.gazzettaufficiale.it/eli/id/2019/01/08/19G00002/sg>

the legacy NPL by continuing efforts to improve the asset quality of banks and strengthening the working environment for servicing of loans.

Also addresses the reference of Eurogroup Statement on Cyprus of 30th November 2020 regarding the reduction of NPLs.

- Action Plan for addressing NPLs

Analysis and context

The NPL stock in Cyprus is a legacy issue from the financial crisis; the default rate of new loans granted post 2016 is very low (2%) and comparable to EU trend. Over the years Cyprus has employed an array of solutions to enhance its NPL toolkit and has supported all EU-wide initiatives to tackle NPLs. The progress achieved to date is the result of strong collective efforts by all stakeholders. The reduction achieved in the stock of NPLs in Cyprus of 79% between end 2014 to mid-2020 is the 3rd largest among EU member states (respective EU average: 50%). The government remains committed in retaining the improvement of the asset quality of banks. The reduction of risks in the banking sector is a core element of our economic and financial policy.

Undoubtedly, the resolution of an issue accumulated over an extended period of time would require a reasonable amount of time for all stakeholders to work out sustainable solutions. This is why, despite the progress achieved so far, there is still some road to go.

The government has designed an action plan to address the remaining stock of legacy non-performing loans. The Government's aim is to halve the stock of NPLs outstanding as of 30th June 2020 within a 2-year horizon. By the end of 2022 it is envisaged to bring the legacy gross NPL ratio, excluding third country branches, to 6% and net NPL ratio to 3%²⁶. This is an ambitious but feasible plan and the aim is to be achieved through the sale of non-performing loans, through loans that are eminent to being re-classified from NPLs to performing loans as well as government-backed schemes for loans collateralised by primary residences.

The largest contribution to the NPL reduction will result from new sales of bad loans to specialised credit acquirers. It is anticipated that about €1,7 bln of NPLs will be resolved through sales over the next few years. About €0,5 bn has been already realised as of January 2021 with the sale of the second leg of the Helix 2 portfolio by Bank of Cyprus. It is thus imperative for the foreclosures framework to remain stable and effective so that debt recovery can be enforced and NPL portfolios retain their value.

Moreover, successful restructurings still classified as NPLs will likely exit non-performing status, once the probation period expires. It is expected that a stock of €0,8 bln of NPLs will successfully migrate into performing loans by 2022.

The government-backed schemes are Estia, for which the assessment is currently well underway, and the non-viable segment of Estia, which is currently under design. It is estimated that loans entering Estia scheme and the loans from the non-viable pool of debtors within Estia will resolve about €0,1 bln of NPLs within the banking sector respectively.

This reform aims at the improvement of the financial resilience of credit institutions and the management of financial stability risks.

²⁶ This target is based on the definition of NPLs as used in the "Monitoring Report on Risk Reduction Indicators" (November 2020), available at https://www.consilium.europa.eu/media/46978/joint-risk-reduction-monitoring-report-to-eg_november-2020_for-publication.pdf

The aforesaid NPL benchmarks are aimed to be reached by end 2022.

- Legal Framework for addressing NPLs

Analysis and context

Since the peak of NPLs in 2014 till mid-2020, about €22 bln of NPLs have exited the banking system. This constitutes more than 100% of Cyprus' average GDP for the corresponding period 2014-2020. Various tools have been utilised stretching across the spectrum of both organic, i.e., within the banking institution, and inorganic solutions, that is through outright sale of the bad asset to a credit acquirer. Indeed, the single largest contributor to the reduction has been the sale of loans to specialised credit acquiring companies. Currently, more NPLs are managed outside the banking sector than within.

As the bulk of distressed debt now lies outside the banking sector, the improvement of the working environment for NPL management for credit acquirers and credit servicers is crucial. This would have additionally the effect of constituting new purchases of loans from banking institutions more attractive potentially leading to a higher purchase price reflecting better debt collection ability.

To date credit servicers and credit acquirers do not have access to the land registry database (through "Ariadne" e-Service portal), whereas the credit servicers do not have access to the credit registry ("Artemis" database) either.

Credit acquirers cannot perform online land registry searches (regarding property of debtors and any charges/memos on this property and who the charge owners are, so that information regarding foreclosure can be sent to the charge holders). Instead, manual searches have to be undertaken at the Land Registry Offices taking a few months to receive results with a risk of outdated information. On the contrary, if the servicers and acquirers know they have the complete information around the debtors they can also offer more precise solutions. It is noteworthy that only the servicers appointed by credit acquirers are affected by the existing impediment. Servicers appointed by credit institutions can bypass the existing impediment by obtaining the required information from the credit institutions through the latter's online access at the land registry database.

In relation to the above, a legislative proposal seeking to expand this access to credit acquirers was submitted to the House of Representatives in November 2019, but it was rejected in a vote held in March 2020. The main reason for the rejection of the legislative proposal was the absence from the Central Bank of Cyprus of a specific regulatory and supervisory framework for credit acquirers.

In a later development, the Central Bank of Cyprus issued the following Directives regarding CACs on 25/09/2020 ²⁷:

- a. The Authorisation of and Supervision of Credit Acquiring Companies Directive of 2020.
- b. The Governance and Management Arrangements of Credit Acquiring Companies Directive of 2020.
- c. The Assessment of Suitability of Members of the Management Body and Key Function Holders of Credit Acquiring Companies Directive of 2020.

²⁷ <https://www.centralbank.cy/en/licensing-supervision/credit-acquiring-companies>

The new developments following the aforementioned Directives issued by the Central Bank of Cyprus on an enhanced and complete framework for the governance and supervision of CACs provide a new window of opportunity for the submission of the legal proposal granting access to the land registry for CACs. As the governance and supervision environment of CACs has now been levelled up to that of credit institutions, the denial of the right of credit acquirers to have equivalent access, as credit institutions, to information regarding their assets, enhances the position that the existing framework breaches the equality principle safeguarded by the Constitution.

Currently, the Ministry of Finance in cooperation with the Ministry of Interior is promoting a package of three amending bills regarding credit acquiring companies and servicers, as shown in the following table:

Official title of draft legislation	Subject of regulation	Status
The Credit Facilities Purchase and Related Matters (Amending) Law of 2021	Placing of NPL servicers under regulation and supervision by the Central Bank	Submitted to House of Representatives in April 2021
The Immovable Property (Transfer, Registration and Valuation) (Amending) Law of 2021	Access for NPL servicers and credit acquiring companies to the Land Registry	Submitted to House of Representatives in April 2021
The Immovable Property Transfer and Mortgage (Amending) Law of 2021	Alignment (non-duplication) of notification requirements in case of purchase of a loan by a credit acquiring company	Submitted to House of Representatives in April 2021

In parallel, the Ministry of Finance in collaboration with the Ministry of Justice, has submitted to the House of Representatives and discussions are ongoing of a bill named “Evidence (Amending) Law 2020”, which aims to enable credit acquiring companies to have the same treatment when presenting loan accounts as evidence before Court concerning cases of debt, i.e., submission of accounts to be accepted as prima facie evidence, as is the case of credit institutions.

Target population

- Credit acquirers and Credit servicers

Impediments

- Regarding the legislative package on credit acquirers and their related credit servicers, the enactment of bills into law by Parliament.
- Regarding NPL reduction, the completion of NPL sales is subject to prevailing market circumstances. Moreover, the macroeconomic environment will affect the exit of loans from the non-performing category and their migration to the performing category.

Implementation

- Enactment of Bills by House of Representatives.
- The reduction of legacy NPLs will be achieved gradually through sale of NPLs to credit acquiring companies, government-backed schemes as well as natural curing of NPLs into the performing category.

Stakeholder Involvement

The legislative package for credit acquirers and their related credit servicers requires the involvement of the parliament and responsible line ministries.

Timeline

Q4 2021 - Enactment of proposed bills by House of Representatives

Q2 2023 - Progress report to the Council of Ministers on the NPL reduction Action Plan. The progress report will be prepared annually for year end 2021 and year end 2022 and approved by the Council of Ministers.

Preventing excessive private indebtedness

- **Reform 3: Strategy for addressing inadequacies of the property transaction system**

Note: contributes to addressing recommendations from Council Recommendation on the 2020 National Reform Programme of Cyprus and delivering a Council opinion on the 2020 Stability Programme of Cyprus on recital (30); Reducing the backlog in the issuance of title deeds by implementing a structural solution to address the inadequacies of the property transaction system (i.e. the issuance and transfer of title deeds) remains an important task obstructing the resolution of NPLs and, more general, property rights of economic agents.

Analysis and context

Existing inefficiencies in the system of issuing and transferring title deeds, resulting into property rights not being defined, complicates foreclosure procedures and deters the liquidation of collaterals. This hinders the resolution of NPLs, even when housing and property markets recover as frozen cases are left outside of market developments. Undefined property rights are a frequent phenomenon in Cyprus and complicates foreclosure procedures, prevents deleveraging and poses difficulties in the valuation of collaterals. The aim is to set up a sustainable and reliable system for issuing and transferring property rights, which ensures that buyers who paid the full price of the property get their titles quickly and without impediments. This is to be achieved through the following:

(a) The promotion of further actions in terms of simplification of the permitting procedures and better implementation of the Law (“the issuance issue”)

(b) The promotion of a legislative proposal enabling buyers who pay the full price of the property to get their title deeds quickly and without impediments (“the transfer issue”).

Both the issuance and transfer of title deeds are analysed below in terms of backlog (legacy) cases and future/new cases.

More specifically regarding the Issuance of Title Deeds:

1) Backlog issue

After continuing efforts for tackling the title deeds backlog problem since 2004, the Department of Land and Survey (DLS) introduced in 2011, within the framework of the Town Planning Amnesty, the mandatory issuance of title deeds under certain conditions. According to this legal framework, DLS initiated the procedure for the mandatory update of the land title deed and the issuance of the required title deeds. Consequently, DLS proceeded with the ex officio procedure for issuing the title deeds for all developments.

During 2013, under the Memorandum of Understanding of Cyprus (with EC/ECB/IMF), and according to a study contacted by DLS, 3.500 developments corresponding to around 70.000 title deeds, were pending. By 2015, the number was reduced to 2.200 developments

corresponding to 45.000 title deeds. Today title deeds for around 1.050 developments are pending, corresponding to around 20.000 title deeds.

The pending cases are being handled according to the mandatory procedure with no cooperation from the owners (Land Developers), and evidence shows that among those developments, there are cases with serious irregularities.

Target population

- Natural and Legal persons with no outstanding obligations having issuance problems

Implementation

- Study the pending cases, one by one and issue a new Ministerial Degree eliminating the pending cases by issuing title deeds with a clear reference on the unauthorised works that the developer executed.

Impediments

- Developers mainly due to financial reasons, do not cooperate or do not respond in order to come through the issues that the developments are facing.
- Building Authorities due to lack of resources, do not respond immediately to the issuing of the division permits and certifications that are processed through the mandatory procedure.

Timeline

Q2 2023 - At least 80% of the pending cases to be resolved

2) Future cases

With the aim of reforming the legal framework for planning and building permits, the Ministry of Interior during 2014, requested the provision of Technical Assistance from the "Support Group for Cyprus" of the EU. The final report of the project included experts' suggestions for reforming the legal framework governing development permitting and building control. After receiving the final report, and in cooperation with the Technical and Scientific Chamber of Cyprus, the Ministry of Interior during 2019, prepared the New Planning and Building Permit Policy Document which includes measures for the immediate improvement and acceleration of permitting and title deeds issuance procedures.

Implementing the New Planning and Building Permit Policy, the Ministry of Interior as from the 1st of October 2020, promoted the implementation of the development permit process in residential plots. This simplification mainly concerns the formulation of a timetable for granting the Planning and Building Permit and the introduction of an electronic platform for submitting an application. The time for granting planning and building permits has been reduced significantly for developments (up to 2 residential units) covered by the New Planning and Building Permit Policy procedures (10/20 days for granting each permit). Subsequently, all the procedures concerning the development will be accelerated (including construction of the development and applying for the issuance of the title deed). From 1/10/2020 until 29/03/2021, 1135 applications for planning permits had been submitted to the 5 district planning offices of the Town and Housing Department, and 841 planning permits were granted. The extension to up to 4 residential units, will add a significant number of developments to this new simplified procedure, mainly developments conducted by developers, where the issuance of the title deeds is more important for transferring the property to the buyers.

At the same time, there are constantly within the DLS about 350 developments (around 4.000 titles deeds), that are in the process of issuance of title deeds. Those cases are straightforward since they are being initiated by the owner and the whole process is run with the cooperation of

the owner (Land Developer). Those cases are being completed within 6 to 9 months from the date of submission of the application to the Department.

Other Actions that will improve and accelerate the permitting and title deeds issuance procedures and are under examination by the authorities are:

- (a) Amendment of the Streets and Buildings Regulation Law by increasing the fine to the supervising engineer for oversight of the project development in accordance with the permit issued (in order not to allow irregularities that will result to the titles not being issued). Also provide in the Law that the supervising engineer receives the last 10% of his/her fee only when he/she submits to the competent authority a certificate confirming the completion of work in line with the permit issued. Possible impediments are objections from stakeholders (e.g., Cyprus Scientific and Technical Chamber, Land Developers) to reach an agreement
- (b) Amendment of the Streets and Buildings Regulation Law in order to link the Certificate of completion issued by the supervising engineer with Electricity connection. Possible impediments are objections from stakeholders (e.g. Cyprus Scientific and Technical Chamber) to reach an agreement.
- (c) Review the possibility of introducing self-assessment. Possible impediments are Objections from stakeholders to reach an agreement

Target population

- Real estate developers
- The purchasers
- Creditors
- Government

Implementation

- Extension of the New Development Permitting Policy to larger and more complex developments

Impediments

Consultation with other Authorities (Ministry of Interior, Cyprus Scientific and Technical Chamber, etc.) for several issues concerning the development, i.e., need for consultation before granting permissions for more complicated developments, the need for adopting the electronic platform for submitting an application from the Local Authorities

Timeline

Q4 2022 - Extension of the New Planning and Building Permit Policy for up to four residential units in residential plots.

Q4 2023 - Review of the Streets and Building Regulation in order to introduce the right incentives for the supervising engineer

Regarding the Transfer of Title Deeds:

- 1) Backlog issue

A solution to the backlog of cases for the transfer issue was given with the enactment of a law and relevant regulations in September 2015. Under this Law it is under the discretion of the Director of Land and Surveys Department (DLS) to proceed with discharge, elimination, transfer, cancellation of mortgage/encumbrance/prohibition of encumbrance of the immovable property, in order to transfer the property from the seller to the buyer, provided that the purchase price is

fully paid, or, if a balance remains to be given, the opportunity to pay via a special escrow account. If the seller does not own immovable property in which the DLS Director can transfer mortgage/encumbrance/prohibition, such a transfer will take place on the property of natural or legal persons having guaranteed the obligations of the seller in connection with the relevant immovable property.

The Law applies to transactions made until 31.12.2014. Extension for the provisions for the so-called trapped buyers was given to those buyers having a Court Decree or an application for a Court Decree for submission of their contract to the DLS Registry until 31.12.2021.

2) Future cases

The general concept is to allow for property transfers under full safety and legal certainty, while minimising operational costs, and minimise delays through checks at a preliminary stage to identify specific obstacles to the transfer before the payment of the purchase price.

The aim is to create a mechanism to safeguard the interests of the buyers of immovable property and ensure in advance that the transfer of immovable property will be executed as soon as the buyer fulfils his/her contractual obligations.

Target population

Property owners, developers.

Implementation

Amendment of the specific performance law and enactment by House of Representatives

Impediments

Objections from stakeholders to reach an agreement

Timeline

Q4 2022 – Amendment of the Sale of Property (Specific Performance) Law so as to safeguard the buyers interests in advance

• **Reform 4: New legal framework and System of Exchange of Data and Credit Bureaus**

Note: contributes to addressing EC's 2020 Country Specific Recommendations (CSR) for Cyprus – relating to improving the level of access to information that both creditors and debtors have in an effort to combat high private debt levels. Better assessment of credit risk is expected through maintaining a credit registry to enable the market to offer services such as credit scoring, in full conformity with data protection rules.

Analysis and context

In order to combat high private debt levels access to information for both creditors and debtors is essential. Better assessment of credit risk is expected through alleviating distortions of the current framework for maintaining the credit registry to enable the market to offer services such as credit scoring, in full conformity with data protection rules. In turn, this will lead to a better profiling of potential debtors and finally to better decision making in the loan-granting process.

The existing legal framework for the System for Exchange of Data (Credit registry) which is used by the Central Bank of Cyprus (CBC) for the exercise of its competencies and by the credit institutions and credit acquiring companies for assessing the creditworthiness of their clients is problematic as it denotes ARTEMIS (Artemis Bank Information Systems Ltd), a private company registered in 2009 and belonging to the Association of Cyprus Banks, as the credit registry.

In order to be in a position to advocate for the upgrade of ARTEMIS, so as to offer credit scoring services, and obtain approval from the Commissioner for the Protection of Personal Data, the distortions in the current framework need to be corrected. Amongst others, the following:

- CBC will be the owner of the system
- Creation of a duty for the collection of data for credit facilities by credit institutions with a clear exemption for all other cases of credit and also obligation for provision of data from Insolvency Department
- Definition of the persons that have access to the Registry
- Definition of cases where access to data is permissible, e.g., application for loan, restructuring
- Mechanism for ensuring data protection
- Period for which data will be kept
- Procedure for amendments
- Fees

The overall objective of the reform is to provide better information for new lending regarding the debtor's financial profile. This should in turn contribute to low levels of non-performing loans.

Target population

Credit Institutions and Credit Acquiring Companies

Implementation

The Ministry of Finance has assigned the drafting of the legislation to a legal advisor. The CBC will be responsible, in close cooperation with the association of Cyprus Banks, for the commencement of the System.

Impediments

The proposed reform needs the agreement of several competent authorities, risk of not reaching a consensus due to the high number of stakeholders involved.

Stakeholder Involvement

CBC, Commissioner for the Protection of Personal Data, DG Competition, National Commission for the Protection of Competition, Commissioner for State Aid Control of Cyprus, Association of Cyprus Banks, Cyprus Chamber of Industry and Commerce, existing Credit bureaus

Reasoned opinion of the ECB will be necessary as well as approval by DG Competition.

Timeline

Q1 2022 - Draft Law Approved by Council of Ministers

Q1 2023 - Enactment of Bill by House of Representatives

Q4 2024 - Successful production of credit scores

- **Reform 5: Action plan for the development of a liabilities monitoring register**

Analysis and context

In parallel with the enhanced legal framework and the operation of the public credit registry, allowing the provision of credit scoring services, to both creditors and debtors (see Reform 4 above), the creation of a liabilities/private debt monitoring register which will measure the amount of all debts, by the type of creditor, such as towards public sector, credit institutions,

employees, will be promoted.

The liabilities monitoring register will allow competent authorities such as the Ministry of Finance, the Central Bank of Cyprus and the Department of Insolvency to design and implement targeted policies to prevent and manage the stock of private debt, considering existing financial data. Through the operation of this all-encompassing register a more thorough picture of the distribution of private debt would be obtained and its development would be monitored. Furthermore, a consolidated picture of credit worthiness towards public authorities will be particularly useful for aid granting authorities in their efforts to target state aid, especially in the form of state guarantees, only to viable enterprises, thus making better use of scarce public resources.

The reform includes the following activities:

- Design and development of credit liability register to generate credit scores for individuals and legal entities, based on public sector data
- Development of a credit rating system for individuals and legal entities, based on public sector data
- Connection with other credit rating agencies.

The first step towards the setting up of a liability monitoring register is the preparation of an Action Plan which will, amongst others, designate the competent authority for the effective operation of the private debt monitoring register, to develop, operate and upgrade an electronic database, which will collect data from all public and private creditors, as well as from any other reliable source, such as the public credit registry, regarding existing debt. The register will encompass liabilities beyond the debt owed in the form of loans, to include liabilities and arrears such as tax liabilities, and contributions to social insurance.

The second step will be to prepare the necessary legal framework, based on the recommendations of the action plan, and best practices. The draft law will include provision on the setting up of the competent authority and details for the operation of the liability monitoring register, including the creation of obligations for the provision of data by public authorities as well as setting out access rights for persons based on legitimate interest. The issue of cross boarder exchange of data as well as data protection issues would need to be tackled.

In order to provide valid and reliable credit information services, the liability monitoring register should have a specialised information system. The IT system will collect data for debts to creditors of the public and the private sector. The aim is to create a database that will facilitate assessing economic behaviour. In this database the following information is envisaged to be stored: identifying information, credit information data, credit scores from Credit Rating Agencies and credit ratings, as well as other reports produced by the liability monitoring registry. The liability monitoring registry will gather and consolidate information on debtors' overdue liabilities and payment behaviour towards all entities of the Public sector with the aim to generate a credit score for each debtor. Thus, another step in the process, perhaps in parallel, to the legal framework, is the setting up of the necessary technological infrastructure. This step will involve the preparation of tender documents and the conduct of a tendering process for selecting one of the few international experts in the field of the provision of credit scoring algorithms to assist the competent authority in setting up the register. The end result i.e. the credit scoring produced would be calibrated with other systems of credit scoring such as the one that will be produced by the central credit registry of the Central Bank of Cyprus (Reform 4).

Once the technological infrastructure is set up, the system would need to undergo a two-year data collection period to enable the production of reliable credit scores.

Target population

Entities with monetary obligation towards the Republic

Implementation

Ministry of Finance with the assistance of Deputy Ministry of Research, Innovation and Digital Policy

Stakeholder Involvement:

CBC, Department of Insolvency, other government departments

Timeline

Q4 2022 - Completion of Action Plan and approval by the Council of Ministers

Q4 2024 - Implementation of Action Plan and commencement of data collection period

• **Reform 6: Reinforcing and Strengthening the Insolvency Framework**

Analysis and context

When the legal framework for insolvency entered into force, the Department of Registrar of Companies and Official Receiver, was assigned the responsibilities and duties of implementing the Insolvency Framework. The newly established Department of Insolvency still faces the following challenges that will be addressed through this reform:

- (a) outdated and not interconnected systems,
- (b) lack of e-applications,
- (c) lack of e-skills of personnel.

The aim is to enhance the functionality of existing systems and introduce new systems in order to create efficiencies through automation as well as to facilitate e-justice in the field of insolvency by creating synergies through automation and systems. Furthermore, linking infrastructure with courts is of the outmost importance.

The competent Ministry proceeded with an assessment of the operational model of the Official Receiver, aiming to recognise the areas that needed to be strengthened more, in order to have the desired results; decrease of NPLs and contribution of this new legal framework to financial stability. This assessment delivered an Action Plan, approved by the Council of Ministers in 2018, which reflects the national policy for the field of insolvency.

The Action Plan for Insolvency is being implemented so far, through Technical Assistance from SRSS and as of 2020, from DG Reform. Through this Action Plan and the use of technical assistance, the government introduced fundamental reforms, such as the establishment of the Department of Insolvency and the regulatory framework for the profession of Insolvency Practitioners. However, further actions need to take place to further reinforce and strengthen the implementation of the insolvency framework. There is still a need to create the appropriate structures and the relevant culture to address the challenges in the use of the framework by stakeholders and within the Department itself.

- 1) Actions to be taken to ensure the full and effective functioning of the Department as a competent authority for Insolvency:
 - o Trainings that need to be delivered for the staff of the Department of Insolvency. These trainings will set up the new organisational culture of the Department by defining the business functions and defining the role, purposes, accountabilities and key performance indicators for each business function. Moreover, they will

contribute to the improvement and standardisation of the core operations, so as to ensure compliance and accountability.

- Digitalisation and enhancement of existing and introduction of new systems that will improve the quality and efficiency of the work of the Department of Insolvency. The overarching aim is to facilitate staff in their day-to-day activities and to create efficiencies.
- New building that meets the needs of the Department of Insolvency. The building that is currently the Department of Insolvency, has many deficiencies that need to be addressed for the better functioning of the department and the better service of its clientele.

2) Actions to be taken to increase the use of insolvency schemes and tools:

- Effective Communication with the interested parties and external stakeholders. An Action Plan has been prepared for the implementation of a Customer Service line. The objective is to strengthen the service provided to all stakeholder groups and to ensure the effective implementation of all relevant laws. This Customer Service will also be complimented by informative campaigns that will enlighten companies and natural persons about the elements of Insolvency Framework, as well as by the development of a Web Portal, which will support online payments, submissions, provide an early warning tool, etc.
- The full implementation of the regulatory framework for Insolvency Practitioners. The overall aim of this program is to regulate the profession of Insolvency Practitioners (IPs), through appropriate licensing and supervision mechanisms and to secure the high level of knowledge and skills through continuous professional development.

Target population

Companies and natural persons that are under financial distress

Implementation

There are components of the Action Plan that have been concluded such as the regulatory framework for IPs, the Action Plan for the Customer Service, the specifications for the Web Portal, the standardisation of procedures, etc. but are still pending to be fully implemented. The Project for Digitalisation is expected to begin within the first half of 2021, while new staff for the Department of Insolvency is expected to be appointed during the second half of the year, so as to proceed with the trainings.

Impediments

- Delays due to bureaucratic procedures and possible political changes
- Objections from stakeholders (e.g., Institute of Certified Public Accountants and Bar Association) in the implementation of the outcomes of the Action Plan

Stakeholder involvement

The implementation of the national Action Plan for Insolvency, requires the involvement of:

- Other Government Authorities (Personnel Department, Tax Department, Legal Service, etc.)
- Central Bank and Banks Association
- Licensing Authorities for IPs (Bar Association and Institute of Certified Public Accountants)
- Industry bodies

- Insolvency Practitioners
- Judicial Authorities

Timeline

Q4 2022 - Completion of action plan to improve the Cypriot framework governing insolvency - implementation and full operation of the legal/institutional framework for Insolvency

Q2 2025 - Completion, acceptance, installation and full operation of all digital systems developed for the Insolvency Department. The systems will optimise the existing operational and technical systems of the Department

- **Reform 7: Strategy for Combating Financial Illiteracy**

Note: contributes to addressing recommendations from Page 25 of Country Report Cyprus 2020; The intention will be to improve the bad decision making by debtors contributed to the imbalances concerning private debt. Designing a strategy for the creation of a debt repayment culture and to more informed, financially responsible and digitally smart citizens is expected to alleviate, inter alia, the identified imbalance of high private indebtedness.

Analysis and context

High private indebtedness is to a certain extent also a result of irrational or uninformed decision making, stemming from financial illiteracy. According to the results of a 2018 survey, 37% of students in Cyprus can be considered financially literate. Similarly, the Standard and Poor's Ratings Services Global Financial Literacy Survey, reports that only 40% of Cypriot Millennials, and only 35% of Cypriot adults, are financially literate. A strategy for improving the debt repayment discipline and towards more informed, financially responsible and digitally smart citizens is expected to contribute to lower private indebtedness in the long run.

Financial education goes beyond knowledge of financial products and concepts; it captures developing attitudes and the behaviour to make rational decision or even requesting help with financial matters.

Indeed, studies point out that the wrong financial decision making, especially among younger citizens has detrimental effects in their long-term well-being. However, financial illiteracy is not only alarming among younger citizens; it is also more pronounced among certain population groups such as women, lower-income citizens, the poorly educated and the elderly. The latter are more vulnerable given the swift establishment of retail electronic banking services.

To date, Cyprus is one of the few countries within the European Union that has no national financial literacy strategy. This, despite the broad acknowledgment that the lack of knowledge and wrong attitudes among the population contributed to the accumulation of private over-indebtedness in Cyprus.

In November 2020, an Ad Hoc Committee was established, in order to formulate a national strategy for Cyprus to promote financial literacy within its population at large. The Ad Hoc Committee consists of members from the Central Bank of Cyprus (coordinator), the Ministry of Finance, the Ministry of Education, Culture, Sport and Youth, the Cyprus Securities and Exchange Commission, the University of Cyprus and the Cyprus University of Technology.

An important element for the accomplishment of the Ad-hoc Committee's goal is the active cooperation with the scientific collaborators²⁸ which are expected to assist the Committee in enriching the National Strategy with best practices and ideas, based on academic research and experiences from other countries. In addition, the Committee will consult and discuss views with

²⁸ Academia, etc.

stakeholders²⁹ who are considered to be able to contribute to the most effective and comprehensive formulation of the Strategy.

Based on evidence collected by a CBC survey, specific target groups would be youngsters, women, low-income households and individuals lacking higher education.

The final deliverable of the Ad-Hoc Committee will be a report analysing the general problems of financial illiteracy in Cyprus, the international literature on the topic and setting the framework for implementation of the General Strategy in the country, suggesting specific actions. Moreover, like the various examples of National Strategies employed by countries in the European Union and around the globe, we expect the strategy to have concrete goals and measurable objectives as well as target groups and specific channels for promoting financial literacy.

The benefit of this effort would be first to increase awareness of the people that any financial decisions and actions they make as individual households, have an effect on the whole society. To this end, financial literate people will make informed decisions about their budgets and act in a rational manner regarding indebtedness, which is one of the largest weaknesses in the Cyprus culture and a structural problem of the economy for decades. Having financially literate people and thus individual financial welfare will therefore support financial and economic decision making as well as countrywide financial stability.

Target population

General population, with focus on youngsters, women, low income households and individuals with lower education.

Implementation

The Central Bank of Cyprus is the coordinator of this reform and chairs the Ad hoc Committee. The Strategy and the relevant action plan for its implementation will be approved by the Council of Ministers. A progress report on its implementation will then be prepared.

Stakeholder involvement

Central Bank, Ministry of Finance, Ministry of Education and Culture, Sport and Youth, Cyprus Securities and Exchange Commission. The Committee will also consult and discuss views with additional stakeholders for a more effective and comprehensive formulation of the Strategy.

Impediments

Potential impediment is the political unwillingness to adopt the suggestions made by the Ad Hoc Committee in, for example, schools due to lack of resources, infrastructure or budget restrictions.

Timeline

Q2 2022 - Strategy finalised and approved by Council of Ministers

Q4 2023 - Full implementation of the short-term measures of the strategy

Enhancing non-bank Supervisory Capacity

- **Reform 8: Enhancing supervision of insurances and pension funds**

Note: contributes to addressing CSR 2 of Recommendation on a Council Recommendation on the 2019 National Reform Programme of Cyprus and Delivering a Council opinion on the 2019 Stability Programme on Cyprus which provided for the strengthening of “supervision capacities in the non-bank financial sector, including by fully integrating the insurance and pension-fund supervisors.” The intention is to enhance the supervision of the insurance and the pension funds

²⁹ Universities, ministries, teachers’ union, youth organisation, Financial Ombudsman.

sectors, through the enhancing of the capacity of the supervisory authorities and through the implementation of specific actions, for the benefit of financial stability and the interests of pension fund members and insurance policy holders.

Analysis and context

A relevant bill, regarding the integration of the insurance and pension fund supervisors was submitted to the House of Representatives in October 2019 and its discussion is still in process in the relevant Parliamentary Committee. Due to the substantial uncertainty of the outcome of this discussion, the supervision enhancement actions are not dependent or connected to this Parliamentary procedure, i.e. the approval of the Bill.

In view of the above, the Department of the Registrar of Occupational Retirement Benefit Funds (RORBF) will be enhanced in capacity with additional personnel of 13 persons in 2021 an increase of 130%, who will assist in implementing specific regulatory/supervisory functions according to plans as conveyed to EIOPA. These include the following:

- Complete existing pending regulatory work required by law and also issue new Directives relating to transfers to/from pension funds, and on fitness and propriety of IORPs managing Committees.
- Set up a special regulatory and supervisory framework for the governance of multi-employer funds and cross border activities.
- Carry out supervisory functions including analysis of financial statements of IORPs, investment policy statements, streamline review procedures for actuarial assessments-reports, collect, validate and analyse statutory information and submit to EIOPA. In addition, prepare tools and commence assessment of compliance with new IORP II regulatory framework. Prepare tools for the assessment of the implementation of the Directives on transfer and multiemployer funds, when these are implemented. Start the development of a risk assessment tool for the implementation of risk-based supervision.

With respect to the insurance sector, the Insurance Companies Control Service (ICCS) will be augmented with 3 additional persons in 2021, an increase of 16% in relation to existing staff. Supervisory actions include the following:

- Assessment and monitoring of governance structure of Insurance companies in Cyprus
- Conducting on-site and off-site inspections
- Following up discussions at the European level with EIOPA and issuing/amending various Orders following as a result of such developments.
- With respect to the Insurance Distribution Directive (IDD), simplifying procedures regarding Insurance intermediaries in collaboration with the insurance companies and commencement of on-site monitoring of intermediaries.
- Implementation of computerisation projects which assist ICCS' analysis capabilities.

Target population

Registrar of Occupational Retirement Benefit Funds and Insurance Companies Control Service

Implementation

All enhancing activities will be implemented by the Registrar of Occupational Retirement Benefit Funds and the Insurance Companies Control Service, in close cooperation with the Ministry of Finance and the Ministry of Labour, Welfare and Social Insurance.

Stakeholder involvement

Insurance companies and pension funds

Impediments

The main parameter relating to the implementation of the upgrading of the supervision of insurance companies/intermediaries and pension funds, is the speed with which the additional personnel will be joining the two supervisory authorities.

Timeline

Q3 2022 - Enhance administrative capacity of the Department of the Registrar of Occupational Retirement Benefit Funds and Insurance Companies Control Service through additional permanent staff

Q4 2023 - Prepare and implement tools (e.g. procedures, checklists, fitness and propriety applications) for compliance with the new legislation (Law Providing for the Establishment, activities, and Supervision of Institutions for Occupational Retirement Benefits Law of 2020 -L 10(I)/2020 transposing to national law the IORPII Directive) and test and set in operation the data collection and analysis tool.

• **Investment 1: Enhancement of the Supervision Function of CYSEC**

Analysis and Context

The specific Investment aims at the creation of an advanced system, based on cloud architecture to cover the need for supervision under the EMIR and SFTR Regulations. CYSEC is the designated regulatory authority of an important number of regulated activities, that undertake transactions.

The new system will support the following:

- Connect to the ESMA Hub periodically (daily and weekly) and download, import and pre-process the associated data.
- Store the data in a data store that will be able to scale to the data volumes of both data sources for the needed amount of time without a significant reduction in performance.
- Generate standardised reports on a schedule based on the aggregated data.
- Be able to support ad-hoc queries and reports on both the aggregations and base data.

Cloud architecture will be used. A second phase of the project is also envisaged to cover the needs of MiFIR as well as other EU Regulations.

Target population

CYSEC administration

Implementation

The project will be implemented by CYSEC with private contractors.

Impediments

- Slow implementation progress
- Stakeholder Involvement
- Supervised entities

Timeline

Q4 2023 - Enhancement of Transaction Supervision through Digitalisation regarding of EMIR, SFTR & MIFIR regulations

Safeguarding Fiscal Stability

• **Reform 9: Improving Tax collection and effectiveness of the Tax Department**

Analysis and context

Tax collection is instrumental in maintaining fiscal sustainability. Efficient and effective tax collection and better customer service will be achieved through the following actions:

- (a) Integrating all procedures and personnel in new modern premises
- (b) Legislative requirements for filling tax forms
- (c) New IT systems for better policy making

The new organisational structures that stemmed from the integration of the two major tax departments, namely Inland Revenue and the VAT Service, created the need for new offices to accommodate district offices personnel. Both departments before integration, were operating in five (5) different offices-buildings around Nicosia. Headquarters' integration was fully implemented from the beginning by reallocating the staff into newly established units under the new divisions. This reallocation of staff could not happen at the district offices and especially at the Nicosia district office, due to old infrastructure and technology limitations. This made the integration project and change management processes overall, very difficult to be implemented not only for the staff but also for the taxpayers. Conclusively, it is of main importance for the staff to operate in integrated units and offer single point taxpayer service at district offices.

Targeting at one integrated district office per District creates a huge challenge not only for the better management of human resources but also for the establishment of new procedures. The new infrastructure allows for better organisation of the work performed in the district office which is beneficial not only for the Department but for the taxpayer as well, enabling for a single point of service Bringing people from direct and indirect taxes together allows the blending of experiences and contributes to higher levels of efficiency and effectiveness.

The newly established organisational structure of the integrated District Office of Nicosia will be function- based rather than tax-based, and in accordance with best international practices. Procedures will change completely so as to treat the taxpayer as a single entity when dealing with all his taxes, allowing for a better quality of the services offered to the public and providing a single service point for Citizens. Such treatment will definitely lead to higher levels of compliance and at the same time increased public revenues. The newly acquired building for the integrated Nicosia District Office and Large Taxpayers' Office will enhance the efforts of integrating the district tax offices in the capital.

In addition to the above the digitisation of the Tax Department will complement the new organisational structure and procedures established and will allow for a single registration to the tax base and Taxisnet (provides for electronic submission of Income Tax Returns by Individuals, Legal Persons and Employers). They will also include a) an integrated tax auditing process based on risk assessment, b) integrated refunds audit, c) integrated single point taxpayer service and d) will establish a process in order to issue single tax clearances.

Furthermore, the Government has recently introduced legislation to implement the mandatory submission of tax returns by every natural person with income as defined in Article 5 of the Income Tax Law, regardless of the threshold that applies to those persons. From the tax year

2020 almost all individuals earning taxable income, irrespective of the amount, will have the obligation to submit a personal income tax return. Certain exceptions will apply.

Furthermore, new legislative changes are expected to be voted for the implementation of criminal offence for direct taxes due, in order to enhance tax compliance and improve collection of direct taxes.

In lieu of such major changes, the Cyprus Tax Department (CTD) will have to put in place all necessary mechanisms to educate and assist to taxpayers for the submission of the returns, and also to enforce the new collection measures.

Educational mechanisms include taxpayer services by issuing clear guidelines exist for the registration process to the system and for the submission of the tax return of for the revenue year 2020, educational workshops and development of visual tools to enhance the taxpayers' knowledge on their tax obligations and on the system.

The measure aims to have in place all legislative provisions to increase tax compliance and tax collection. The measure also aims in collecting more information from the taxpayers, not only from own databases but also from third party information which consequently will improve the management information system and lead to better policy making. This project aims to segment the population in order to offer customised educational workshops on regional, economic activity and educational attainment level of the population. Furthermore, CTD will have to offer taxpayer service based on constantly updated FAQ publications, call centres and reminders which will be sent via sms and/or emails to targeted taxpayers and to all the population.

The new Tax Department Digital System will replace existing systems of the Tax Department, as well as electronic communication applications with the public, such as Taxisnet, the use of the Ariadne electronic portal for settlement of overdue debts and the intermediate use of the Tax Portal for electronic payments and will provide its staff with modern tools. The main objective of the new system is to secure and enhance the audits by providing relevant record and audit trails to the source records that provide documentary evidence and sequence of activities that have affected at any time a specific operation, procedure or event. The new system will provide adequate, fair, accurate and efficient data analysis, to be used in the administration and design of the tax system, including future tax measures.

The integrated system will collect data from all types of taxes to provide a single picture of every taxpayer through a single system for a better analysis, to serve a series of purposes such as audit, debt management etc. It will also simplify, automate and improve processes. The tax filing process will be simplified and become more user friendly for the taxpayers, and the same time a real-time of the tax database will be achieved. At the same time, the system will facilitate the digitisation of a number of processes: filing of bulky documents electronically, registration and deregistration procedures, enhanced payment systems through alternative tools (taxpayers' side), better selection of cases for audit for higher tax yield, better debt management through the coverage of all taxes at the same time, introduction of more modern tax compliance measures. In addition to the above, the new system will offer maximum data analysis and utilisation with security, integrity and confidentiality. The new technology that will be implemented will allow the immediate adjustments of the system to accommodate any changes in the legislation and/or procedures and will allow extension of secure interfaces with other systems. The new system will also allow the extension of e-services offered to the public, which is expected to reduce the burden on the business and at the same time will enhance transparency.

The Online Fiscalisation Project involves connecting businesses to a server held within the Tax Department, without the use of specialised mechanisms, and thus minimising the cost for entrepreneurs. This can be achieved through any software application, and with the use of a business connection card to the server, which informs the Tax Department in real time (online) about the transactions that take place. At the same time, it signals the receipts whose validity can

be checked through the application by the customer who in turn will be motivated / benefited to control them. The implementation of such a system will give real time information as to the activity in each business, something that will allow the Tax Department to carry out timely analysis and thus enhance the selection of taxpayers for audit. At the same time, it can be connected to legislative payments for the direct payment of VAT as well. The challenge, here, however, would be to establish efficient mechanisms to refund the large number of traders that will develop over time. It is expected that the results of this project will include increased Tax Compliance and a decrease in the Tax Gap.

Last but not least, the Digitisation of immovable property and capital gains sector of the Tax Department Project involves the scanning and electronic storage of all documents that exist in paper taxpayer files regarding the real estate (immovable property) sector and capital gains sector (District Immovable Property and Capital Gains Tax Units) of the Department, in order to create a paperless environment. The cost of this project will require the purchase of specific hardware, software, and the employment of nonspecialised personnel who could be employed through specialised schemes of Human Resource Development Authority. Besides the paperless environment, the digitalisation will enhance data security and exchange with other government authorities. It will also allow the processing and analysis of data to be handled in a smooth and efficient way.

The hardware will mostly consist of scanners that will scan the documents in paper files and software will transform the scanned documents and input data in a database.

Target population

- Non-compliant Taxpayers with Tax due
- Tax administration and Taxpayers,
- Consumers and Entities subject to Taxation,
- Taxpayers with Capital Gains and Real Estate Tax Obligations

Implementation

Tax Department

Impediments

- Acceptance by certain category of taxpayers and educating to comply towards this obligation.
- Delays in voting the legislation regarding the criminal offence for direct taxes due.
- The effective integration of all these systems may present technical challenges and training of all prospective users will be necessary.

Stakeholder involvement

All Taxpayers

Other Entities subject to tax obligations

Tax professionals and Tax service providers

Tax Administration

Timeline

Q1 2022 - Completion installation and operation of VAT System - Integrate VAT to the new System developed

Q2 2024 - Completion installation and operation of an Integrated Tax Administration System (ITAS) that will support all the tax administration functionalities and processes

Q4 2025 - New systems and procedures in place and key personnel within the Integrated Tax Department trained

- **Reform 10: Addressing Aggressive Tax Planning (ATP)**

Note: contributes to addressing EC's 2019 CSRs for Cyprus #1, Recital 8 and 26 and CSR 2020 # 4. The intention will be to improve features of the tax system that facilitate ATP by individuals and multinationals

Analysis and context

The overall objective of the measures is to increase the effectiveness, efficiency and fairness of the tax system and to tackle aggressive tax planning structures. This will in effect contribute to the fiscal and financial stability.

Cyprus has made substantial progress, over the past few years in addressing potential aggressive tax planning practices and is still in the process of enhancing its efforts in this area. In this respect, Cyprus has adopted national rules to effectively tackle tax avoidance loopholes and prohibit possible exploitation of mismatches between the tax systems of Member States and non-EU Jurisdictions stemming from Anti-Tax Avoidance Directive I & II. In this regard, Cyprus has already implemented national rules for avoiding situations of double non-taxation deriving from mismatches in the tax treatment of profit distributions.

Additionally, Cyprus despite not being an OECD Member State, is a member of the Ad-Hoc group that developed the Multilateral Instrument (MLI) and has co-signed and ratified the MLI, which seeks to combat tax avoidance and treaty abuse by multinational enterprises, through the implementation of a number of OECD Base Erosion Profit Shifting Actions. Moreover, Cyprus has amended numerous bilateral tax treaties to prevent treaty shopping and aggressive tax planning. Furthermore, Cyprus has enacted numerous legislations in the area of tax transparency.

It should be noted that the corporate tax residency test will be additional to the management & control test, based on the incorporation. The introduction in the law will be made within the definition of a Cyprus tax resident entity. The first test will be the management and control, and in cases where a company incorporated in Cyprus but its management and control is done from another jurisdiction, then it will be considered as a Cyprus tax resident and will be taxed in accordance with the relevant provision of the Income Tax Law, provided that the company is not a tax resident elsewhere (to avoid dual residency status).

The legal drafting of the amending tax bills has been conducted and agreed within the public consultation process and the tax bills were submitted in Spring 2020 to the Law Office of the Republic for legal vetting. The legal vetting has been concluded in January 2021. On 25 February 2021 the Council of Ministers approved the submission of the above-mentioned legislative proposals to the House of Representatives, and in this direction on the 8 March 2021 the Minister of Finance submitted the legislative proposals to the House of Representatives for discussion and enactment.

The measures are designed to combat tax evasion and aggressive tax planning by the Multinational Enterprises (MNE's) that have transactions through Cyprus in countries in Annex I of the EU listing.

Cyprus will assess the effectiveness of measures related to aggressive tax planning, via an independent evaluation.

In addition to the above, Cyprus is extending further the scope of the above measures, to other low tax jurisdictions (beyond the EU list of non – cooperative jurisdictions on tax matters), so as payments made from Cyprus to low tax jurisdictions to be captured, by introducing withholding taxes or other equivalent measures. The overall objective of the additional measure is to broaden the scope of application of the defensive measures against tax avoidance and evasion, considering negotiations on Pillar II of the Inclusive Framework or on a minimum effective tax rate at EU level.

Target population

- Cyprus Tax Residents
- Entities incorporated in Cyprus

Implementation

- Ministry of Finance (Tax Policy) and Tax Department. Regarding extending the scope, the Ministry of Finance will prepare in cooperation with relevant stakeholders and integrated proposal.

Stakeholder involvement

- Entities and persons that are tax residents of the Republic.

Impediments

- As stated in the 2020 European Semester documents (Country Specific Recommendations and Country Report) for Cyprus, the absence of withholding taxes on dividend, interest and royalty flows might contribute to facilitating ATP. Not withholding taxes on dividends, interest and royalties supports the proper application of “capital export neutrality” (CEN) for non-Cyprus tax resident investors. Under CEN investors pay tax in their home State at their local rates. If Cyprus were to charge withholding taxes holistically this could have distorting effects.
- By imposing withholding taxes on specific sources of income, indirectly investors will be driven to invest in other jurisdictions that do not impose withholding taxes. This will distort the amount of inbound and outbound foreign investment and effectively the data for the country (such as FDI).

Timeline

Q4 2021 - Enactment of draft legislation by the House of Representatives to tackle aggressive tax planning by (a) imposing a withholding tax on interest, dividends and royalty payments to jurisdictions, in Annex I of the EU list of non-cooperative jurisdictions on tax matters and (b) introduction of a further corporate tax residency test based on the incorporation of each entity.

Q4 2023 - Enactment of a law by the House of Representatives to tackle aggressive tax planning via payments to low tax jurisdictions by imposing a withholding tax on interest, dividends, and royalty payments or other equivalent measures.

Q4 2025 - Enactment of the necessary legislative changes, addressing the findings of an independent evaluation on the effectiveness of measures related to aggressive tax planning.

- **Investment 2: Modernisation of Customs and Electronic Payment System**

Analysis and context

Cyprus, like every other Member State and Commission is working intensively to develop and implement the electronic systems envisaged under the Union Customs Code. The Customs Systems foreseen in the UCC Working Program are expected to simplify and expedite customs

formalities and reduce the administrative cost for all stakeholders (Customs, other Government Services and the Trade) and thus make revenue collection more efficient. The electronic exchange and storage of information such as declarations, applications or decisions between the various EU customs authorities, economic operators and Cyprus Customs Authority and EU-Cyprus Customs Authority, will be executed in a paperless environment. Furthermore, the Customs System will cover all Department's national range of activities and functions. The system will be utilised by Economic Operators (all companies involved in a cross-border movement of goods including SMEs) their representatives (Customs Agents) and Customs and Excise personnel, creating a level playing field for business.

There will be three different types of systems: The Declaration Systems (e.g. Manifest, Automated Import, Transit, Automated Export and Excise Movement Control System) will communicate with the Operational Components, the Management Components and External Interfaces using the Integration Layer: horizontal applications, the Business Rule Engine (BRE), the Business Process Engine (BPE) and Message Broker. The communication will take place through web services.

The Operational Systems consist of the Risk Analysis, Accounting, Audit, Tariff, Customs Warehouse, Case Management, Surveillance and Quota.

The Management Systems consist of the Business Rule Management, Business Process Management, Reference Data Management, Internal IAM and Reporting.

In addition, new initiatives, such as the EU Single Window, become mandatory for the Member States, while new obligations (e.g. e-commerce) and the setting of new deadlines undermine the ability to draw a clear national planning.

The high complexity of the UCC projects, the large number of stakeholders involved, the interdependencies (interconnections) between core and supporting systems and the limited timeframe to develop, function and manage the systems, may result to the risk to not have a smooth transition from existing systems to the new ones. The UCC prescribes moving fully to a paperless environment for customs formalities. The use of electronic systems for all interactions between economic operators and customs authorities reduces administrative costs and red tape and leverages the role of customs to support the competitiveness of European business in general.

With the full development of the systems a considerable number of messages will be exchanged between various actors:

Target

- Customs Administration
- Entities with custom Obligations

Implementation

The development of the UCC related systems is a legal obligation of every EU Customs Administration which has to be fulfilled within a timetable provided for in the UCC Work Program. The operation of these systems will create a level playing field for European businesses and boost competitiveness. All customs formalities for the movement of goods will be completed swiftly in a paperless environment and all transactions will be recorded. However, this exercise is quite challenging. The main challenge with the implementation, is the simultaneous development of a significant number of electronic systems, core and supporting, in a period of three years.

Stakeholder involvement

Customs Administration

Impediments

Slow implementation of progress

Timeline

Q4 2021 - Contract Signature

Q4 2023 - At least 2 large import-related systems completed and operational

Q4 2025 - Completion Acceptance installation and operation of at least 10 systems

9.4 Green dimension of the component

One investment under this Component has a green dimension, that is basically an indirect effect of the digital dimension of this component by reducing the energy consumption and paper consumption, associated with dealings of the public administration.

More specifically:

- Investment titled “Modernisation of Customs and Electronic Payment System” has also an indirect green dimension as a result of the Digitalisation of custom formalities. It will basically simplify and expedite customs formalities, moving fully to a paperless environment for customs formalities, and reduce the administrative cost for all stakeholders (Customs, other Government Services and the Trade).

9.5 Digital dimension of the component

This Component includes implementing big two information technology projects for the Tax Department and Customs Department, and two other IT projects for the Department of Insolvency and the Cyprus Securities and Exchange Commission.

In more detail:

- Reform titled “Improving Tax collection and effectiveness of the Tax Department” is a significant e-Government project that has three distinct sub projects. The “Integrated Tax Information System” which will replace the current systems of the Tax Department, as well as electronic communication applications with the public, such as Taxisnet, the use of the Ariadne electronic portal for settlement of overdue debts and the intermediate use of the Tax Portal for electronic payments and will provide its staff with modern tools. The second project titled “Online Fiscalisation” involves connecting businesses to a server held within the Tax Department and it will inform the Tax Department in real time (online) about the transactions that take place. The third project titled “Digitisation of immovable property and capital gains sector of the Tax Department”, involves the scanning and electronic storage of all documents that exist in paper taxpayer files regarding the real estate (immovable property) sector and capital gains sector (District Immovable Property and Capital Gains Tax Units) of the Department, in order to create a paperless environment. The project falls under measure field 11 according to the digital tagging list. It should be noted that digital tagging is assigned only to part of the estimated total cost of the reform.
- Investment titled “Modernisation of Customs and Electronic Payment System” will simplify and expedite customs formalities (basically moving fully to a paperless environment for customs formalities) and reduce the administrative cost for all stakeholders (Customs, other Government Services and the Trade) making revenue collection more efficient. Furthermore, the Customs System will cover all Department’s national range of activities and functions. The system will be utilised by Economic Operators (all companies involved in a cross-border movement of goods including SMEs) their representatives (Customs Agents) and Customs and Excise personnel. The project

falls under measure field 11bis according to the digital tagging list. This investment also fulfils the criterion of compliance with the European Code of Conduct on Data Centre Energy Efficiency.

- Reform titled “Enhancement of the Insolvency Framework” includes a part that is about the digitalisation and enhancement of existing and introduction of new systems that will improve the quality and efficiency of the work of the Department of Insolvency. The overarching aim is to facilitate staff in their day-to-day activities and to create efficiencies. The project falls under measure field 11 according to the digital tagging list.
- Investment “Enhancement of the Supervision Function of CYSEC” which aims at the creation of an advanced system, based on cloud architecture to cover the need for supervision under the EMIR and SFTR Regulations. The project falls under measure field 11 according to the digital tagging list. It should be noted that digital tagging is assigned only to part of the estimated total cost of the reform.

In general, the projects in this Component will improve Cyprus performance in several dimensions of the DESI index, such as the “Digital Public Services” and “Integration of Digital Technology”, where Cyprus is currently ranked below the EU average.

9.6 Do no significant harm

In all measures included in this component that foresee construction works and purchase of new equipment, machinery, vehicles etc., all procurement procedures will require compliance with the DNSH principle as explained in detail in the separate DNSH assessment of the corresponding measure. This will apply both for investments in the public sector and for financial support schemes to the private sector.

See separate assessment performed on this area included as ANNEX 3 - Assessment of the compliance of the Cyprus Recovery and Resilience Plan with the ‘Do No Significant Harm’ Principle.

9.7 Milestones, targets and timeline

The milestones and targets for the investments/reforms of this Component are presented in the attached table.

9.8 Financing and costs

The cost for each milestone and target is presented in the attached table.

9.9 Loan request justification (if applicable)

Reforms/Investments under this Components will be covered by the grant element of the Plan.

Policy Axis 4 Towards a digital era

Component 4.1 Upgrade infrastructure for connectivity

10. COMPONENT 4.1 Upgrade infrastructure for connectivity

10.1 Description of the component

Policy area/domain: Upgrade infrastructure for connectivity

Objectives:

Today, Citizens and businesses in Cyprus are lagging behind the EU average concerning access to very high capacity networks, with only 10.1% index (VHCN coverage), compared to 44% of EU average. The situation is even worse in rural areas. Thus, Cyprus needs to leap towards meeting the [EU targets](#) for fibre and 5G deployment.

The European Commission, in its “Annual Sustainable Growth Strategy 2021”, sets clearly the flagship of [CONNECT](#), to support a robust recovery: In areas not served by the market, the Recovery and Resilience Facility should ensure that by 2025 there is the widest possible territorial rollout of fibre and uninterrupted 5G coverage, for all areas.

These targets are also depicted in the CSRs for Cyprus in [2019 \(CSR 4\)](#) and [2020 \(CSR 3\)](#).

The main objective of this component is to bridge divides and ensure an inclusive digital transformation. Ensuring adequate access to communication infrastructures for all citizens is essential for the realisation of the opportunities of digital transformation. A number of divides exist in society including differences in access to broadband between rural and urban areas, and divides along gender, age, income and education. Bridging the gaps is needed to ensure an inclusive digital transformation so that the opportunities are utilised by all. This will be achieved by:

- ensuring 5G and fibre coverage for 100% of the population living in organised communities, including deployment of 5G along the main terrestrial corridors, and
- enabling universal and affordable access to Gigabit connectivity in all urban and rural areas, including 5G and Gigabit connectivity,

in line with the EU’s 5G and Gigabit connectivity objectives as set out in the “Connectivity for a Competitive Digital Single Market - Towards a European Gigabit Society” Communication and the “2030 Digital Compass: the European way for the Digital Decade” Communication.

Reforms:

- Reform 1: Empower the National Regulatory Authority (OCECPR).
- Reform 2: Empower the National Broadband Competence Office (DEC of the DMRIDP).

Investments:

- Investment 1: Expansion of Very High-Capacity Networks in underserved areas.
- Investment 2: Enhance building cabling to be “Gigabit-ready” and promote connectivity take-up.
- Investment 3: Submarine link to Greece.

Flagship initiatives: Connect, Modernise, Reskill and Upskill.

Total estimated budget to be funded through the RRP: €53 mln

10.2 Main challenges and objectives

Main challenges

The current situation in Cyprus demonstrates low fibre deployment for very high capacity networks (mainly in urban areas and almost non-existing in rural), while deployment of 5G has only started in 2021 after the spectrum auction for 5G (700MHz and 3.6GHz) which took place on 17/12/2020. It is obvious that a digital divide persists in Cyprus, even though some progress has been made the past few years. According to the Digital Economy and Society Index (DESI) 2020³⁰, most digital indicators for Cyprus are slightly improving year by year, but this improvement is rather slow. Cyprus lags behind in ultrafast broadband coverage, fast broadband uptake and ultrafast broadband uptake, and the broadband price index. While fixed broadband coverage is among the factors boosting Cyprus' ability to benefit from the digital economy, the main challenge remains to encourage take-up of ultrafast broadband. Take-up is influenced by factors such as high pricing, lack of compelling content with many e-government projects still under implementation, low digital literacy with only 50% of citizens having basic digital skills and low ultrafast broadband coverage.

High broadband pricing is considerably affected by the lack of competitiveness and infrastructure monopoly in suburban and rural areas, where alternative operators hesitate to invest because of the low population density in these areas. The country's geographical location also affects prices, since international connectivity provided by submarine cables is expensive and constitutes a considerable cost component for Telecom providers. E-government, e-health and e-education services are less developed than in other EU countries, and thus, provide lower incentives to citizens for ultrafast broadband use. Regarding digital literacy, Cyprus lags behind since almost a sixth of Cypriots have never used the Internet, and half lack basic digital skills. Despite growing demand in the labour market, the supply of ICT specialists is still below the EU average.

As depicted in the Cyprus Competitiveness Report 2019³¹ as well as in the findings of the ongoing study of the long-term Growth Strategy, the ICT services sector is increasingly important to the growth of advanced economies. Digitalisation of the economy and the availability of ICT services play a central role for competitiveness, with investments in ICT capital as a key driver of productivity growth. Moreover, the Competitiveness Report indicates that connectivity is a weak spot for Cyprus, along with human capital (i.e. digital skills), which are both below the EU average. Potentially, this creates the possibility of a negative cycle, whereby low internet speeds, low broadband penetration and high prices create a barrier to digital adoption and acquisition of digital skills. Conversely, low digital adoption and acquisition of digital skills constrain demand for ultrafast broadband internet and hence restrict incentives for suppliers to roll-out infrastructure investments and services.

A mapping of existing and future private investments in fixed networks and 5G was performed by the National Regulatory Authority (NRA) (Office of the Commissioner of Electronic Communications and Postal Regulation -OCECPR) in January 2021 for a timeframe of future investments until 2025. Based on the mapping for fixed networks, private investments are expected to serve areas where 90% of the population lives and cover 32% of the whole territory with services offering a download speed of at least 100Mbps, which can be readily upgradable to gigabit. For 5G networks, private investments are expected to cover 98% of the population and roughly 70% of the territory (including major terrestrial transport paths). In planning measures to ensure investment in fibre and 5G networks consistent with Gigabit Society ambitions, key challenges to be addressed include:

³⁰<https://ec.europa.eu/digital-single-market/en/scoreboard/cyprus>

³¹[http://www.ecompet.cy/ecompet/ecompet.nsf/all/9183D5F9CA3F61B0C225843C001E3808/\\$file/Cyprus%20Competitiveness%20Report.pdf?openelement](http://www.ecompet.cy/ecompet/ecompet.nsf/all/9183D5F9CA3F61B0C225843C001E3808/$file/Cyprus%20Competitiveness%20Report.pdf?openelement)

- Ensure that all households have access to networks capable of offering a speed of at least 100 Mbps download, which can be upgraded to Gigabit speed, up from 10.1%³² in 2020. There is an important territorial divergence between urban and rural/remote connectivity, with urban populations benefiting from private investments in broadband networks with no equivalent investment in rural areas (2.8% VHCN coverage in rural areas as opposed to 10.1% at national level³³). This results in important social divergences and exacerbated inequalities in terms of connectivity, resulting in lack of fair access to quality education, job opportunities and affordable and accessible services;
- Smooth and effective deployment of 5G networks in the 700MHz and 3.6GHz bands that were assigned in December 2020, setting obligations for population coverage of 70% of the population as well as all highways by end of 2025 with speeds of at least 100Mbps);
- Ensure that 100% of the population living in organised communities (urban or rural), and all major terrestrial transport paths will have uninterrupted 5G coverage with a download speed of at least 100 Mbps;
- Assignment of the 26Ghz band of radio spectrum for 5G to support emerging technologies (such as IoT, AI) with very high speed and low latency mobile network demands;
- Ensure access to very high capacity networks capable of offering a speed of at least 1 Gbps download and upload, in particular fibre and 5G networks, by main socio-economic drivers (such as hospitals, schools, transport hubs, public service providers, digitally intensive enterprises);
- Encourage take-up to enable the use of advanced digital services and technologies;
- Ensure affordable and resilient international backhaul connectivity for all market players.

Objectives

Digital transformation can only be fully realised if high quality access to communication networks and services is made available at affordable prices for all people and firms, no matter who they are or where they live. This involves investing in significantly upgrading communication infrastructures to address the increasing demand for data generated by the billions of devices coming online in the near future. Increasing competition and making it easier to roll out the needed infrastructure will encourage this investment. At the same time, efforts need to be made to allow all parts of society to take part in digital transformation, including rural populations currently experiencing significantly worse ultrafast broadband access.

Covid-19 has highlighted, more than ever, the crucial need for high quality digital connectivity across the country for the continuation of key activities digitally, such as remote working, healthcare and education at critical times. The pandemic widened the digital divide and has brought to the forefront important bottlenecks that need to be addressed in order to increase resilience and territorial and social cohesion.

In the Country Specific Recommendations 2020³⁴, the European Commission recommends that Cyprus should focus investment on the green and digital transition, in particular on clean and efficient production and use of energy, waste and water management, sustainable transport,

³² DESI indicator 1b2 Fixed Very High Capacity Network (VHCN) coverage ([https://digital-agenda-data.eu/charts/desi-see-the-evolution-of-two-indicators-and-compare-countries#chart={%22indicator%22:%22desi_1b2_vhcnc%22,%22breakdown%22:%22hh_total%22,%22unit-measure%22:%22pc_hh%22,%22ref-area%22:\[%22CY%22\]}&lang=en](https://digital-agenda-data.eu/charts/desi-see-the-evolution-of-two-indicators-and-compare-countries#chart={%22indicator%22:%22desi_1b2_vhcnc%22,%22breakdown%22:%22hh_total%22,%22unit-measure%22:%22pc_hh%22,%22ref-area%22:[%22CY%22]}))

³³ Broadband Coverage in Europe 2019, BCE2019_Final dataset (https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=70032)

³⁴ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0513&from=EN>

digitalisation, research and innovation. Digital economy is very important for bolstering productivity and boosting the economic recovery after the crisis from COVID-19. This component is also in line with the country specific recommendations 2019 CSR³⁵, which recommended focusing investment and investment-related reforms on high capacity digital infrastructure. All proposed reforms and investments either explicitly or implicitly aim to increase investments in very high-capacity digital infrastructure, with a view to increasing coverage and take-up.

The component also supports the European Flagship “CONNECT”³⁶ by improving access to very high capacity networks and contributing to ensuring that by 2025 there is the widest possible uninterrupted 5G coverage in all areas. This will foster take-up and ensure that households and enterprises alike can take advantage of the digital transformation.

In order to accelerate investments in very high capacity connectivity, so as to reach the EU's 2025 and 2030 Gigabit and 5G connectivity objectives, it is also necessary to address the underlying root causes that may result in delays and/or extra costs, preventing smooth rollout of investments and efficient take up of connectivity services by households and businesses. The new **National Broadband Plan**, which will include concrete measures to reach the EU's 2025 connectivity objectives, is already under preparation (funded by national sources) and will address both reforms and investments in line with State aid rules. The Broadband Plan will provide a consistent framework of all actions to be undertaken by the public sector to facilitate private investments (including the assignment of the 26 GHz radio spectrum for 5G networks under investment-friendly conditions) as well as all public measures in areas beyond the interest of private investors.

One of the ways to help reduce the digital divide and accelerate digitalisation is to spur competition between providers which in turn will lead to lower prices, making ultrafast internet more affordable for the subscribers. Therefore, the Government has to intervene to expand the ultrafast broadband coverage in areas where there are no private investments and at the same time to increase the demand (take-up) in ultrafast broadband services by applying demand side measures. The new National Broadband Plan and the 5G Action Plan can be a catalyst in this direction.

The new Cyprus Broadband Plan sets the following strategic objectives for 2025:

1. Gigabit connectivity for all main socio-economic drivers
2. All premises in organised communities (urban or rural) to have access to internet connectivity offering a download speed of at least 100Mbps, which can be readily upgradable to 1 Gbps
3. 100% of the population living in organised communities (urban or rural), and all major terrestrial transport paths to have uninterrupted 5G coverage with a download speed of at least 100 Mbps
4. 70% of households to have an internet connection (take-up) with a download speed of at least 100Mbps.

The reforms will address:

1. Enhancement and integration of information regarding:
 - i. existing physical infrastructure of network operators for undertakings willing to deploy very high-speed broadband networks;
 - ii. the reach of broadband networks and services which is relevant for the execution of tasks of potential stakeholders (i.e. OCECPR, Public Authorities, Electronic

³⁵<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019DC0513&from=EN>

³⁶[COM\(2020\) 575 final](#). See also EU Strategy “Towards a Gigabit Society” and “5G Action Plan for Europe”

Communication Network Operators and end users) which at the present is limited and non-detailed;

2. Slow administrative process regarding permits (particularly for the installation of base stations for radio-communications) and rights of way, hampering the speed of network deployment;
3. Citizen concerns about environmental and/or health impact of infrastructure deployment (e.g. in case of 5G).

Although many actions towards these directions have already been implemented during the past years, some investment barriers remain. These barriers, as well as those indicated in the “Connectivity Toolbox”³⁷, will be thoroughly documented in the context of the new Broadband Plan to be addressed with priority, starting from 2021.

The proposed reforms contribute to those objectives by addressing administrative barriers to investments in connectivity, streamlining permit granting procedures and fees, thereby facilitating network deployment in line with 2019 CSR 4.

The proposed investments contribute to those objectives by:

1. Incentivising investments in new or upgraded connectivity infrastructure as prerequisite for digital transition thereby taking into account 2020 CSR 3.
2. Addressing the investment gap to extend very high capacity networks beyond the areas of pure private investments to address territorial disparities, in line with 2019 CSR 4, 2020 CSR 3 and state-aid rules.

The accelerated deployment of very high capacity networks, in particular 5G and fibre (e.g. Fibre to the Premises - FTTP) networks in urban and rural areas will generate important spill-over effects across society and the economy, providing the necessary infrastructure to handle emerging and future processes and applications. It will provide the industry with new opportunities, make rural areas more attractive for businesses and young generations, whilst contributing to increasing Europe’s digital strategic autonomy. At the same time, it will create short-term employment and upskilling opportunities in the relevant construction and civil works sector.

Slow internet connection speeds are a key barrier to industrial digital adoption, particularly amongst SMEs. In addition to improving the performance of low-productivity businesses, digital connectivity can play a role in addressing wider societal issues, such as cutting carbon emissions by reducing the need to commute. Nationwide gigabit-capable connectivity could allow more people to work from home, giving greater flexibility in where they live. That means more people could move to suburban or rural areas, reducing pressure on transport networks and urban housing. This will help addressing the ongoing depopulation of rural communities by increasing employment opportunities, including through the introduction of ICT in agriculture, and by ensuring better access to key services such as health care.

The reforms and investments are fully aligned with the National Digital Strategy and are included in the National Broadband Plan. The governance of the reforms and investments under the connectivity component will be assumed by the purpose-specific RRF Projects team that will be created by the Deputy Ministry of Research Innovation and Digital Policy (DMRID), with the participation of the Department of Electronic Communications (DEC) (which is also the Broadband Competence Office (BCO Cyprus) and the Office of the Commissioner of Electronic Communications and Postal Regulation (OCECPR). The RRF Projects team will manage the projects during their entire lifecycle and will coordinate collaboration with all stakeholders,

³⁷<https://digital-strategy.ec.europa.eu/en/news/connectivity-toolbox-member-states-agree-best-practices-boost-timely-deployment-5g-and-fibre>

including other ministries, local administrations and telecom operators.

CSRs addressed

Reforms /Investments	Year / CSR Numbers Recitals	Justification
<p>Reform 1: Empower the National Regulatory Authority (OCECPR)</p> <p>Reform 2: Empower the national Broadband Competence Office (DEC of the DMRIDP)</p>	<p>CSR 4 2019</p>	<p>Empowering the capacity of both OCECPR and DEC with a focus on adopting the relevant EU legislation and providing for all secondary legislation instruments and tools is expected to facilitate and accelerate investments in Very High Capacity Networks.</p>
<p>Investment 1: Expansion of Very High Capacity Networks in underserved areas</p> <p>Investment 2: Enhance building cabling to be “Gigabit-ready” and promote connectivity take-up</p> <p>Investment 3: Submarine link to Greece</p>	<p>CSR 4 2019, Recital 15</p> <p>CSR 3 2020, Recitals 21, 24</p>	<p>The proposed investments focus on both the availability and the take-up of Very High Capacity Networks (fibre and 5G). Investment 1 addresses territorial disparities of broadband availability, fostering the digital transition of all vertical sectors (including all major socio-economic drivers) in underserved areas.</p> <p>Investment 2 encourages the digital transition, in particular on digitalisation, encouraging widespread take-up of Very High Capacity Networks.</p> <p>Investment 3 promotes private investment to foster the economic recovery, assuring high-capacity resilient backbone internet connectivity for Cyprus.</p>

10.3 Description of the reforms and investments of the component

In all measures included in this component that foresee construction works and purchase of new equipment, machinery, vehicles etc., all procurement procedures will require compliance with the DNSH principle as explained in detail in the separate DNSH assessment of the corresponding measure. This will apply both for investments in the public sector and for financial support schemes to the private sector.

Reforms

- **Reform 1: Empower the National Regulatory Authority (OCECPR)**

The Reform will assist the Office of the Commissioner of Electronic Communications and Postal Regulation (OCECPR) to implement a web portal system for integrated access to geographical data related to networks roll out [2019 CSR 4]. This will empower the OCECPR in adapting policy decisions, design and implementation of more efficient regulation, understanding the level of competition and trends in the Electronic Communications market, but also the impact of imposed regulatory measures.

Challenges

To assure timely and ambitious implementation of the regulatory and policy framework (European Electronic Communications Code) and the necessary secondary legislation and enabling instruments.

Objectives

The aim is to empower OCECPR to implement a web portal system to enable the integrated production and provision of data on the reach of broadband networks and network infrastructures to:

- ensure that regulatory conditions and policy decision-making are favourable to help bridging the gap with private investments,
- to improve transparency and enhance the incentives for market operators to invest faster in very high capacity networks,

Based on the effective implementation of the European Electronic Communications Code (EECC³⁸), together with all accompanying soft-law instruments (e.g. BEREC guidelines and Commission Directives) and in line with the EU Connectivity Toolbox and the EU toolbox on 5G Cybersecurity³⁹. The Digital Security Authority (DSA) who is responsible for the application of the EU toolbox on 5G Cybersecurity published the National Legislation on 5G Security in September 2020, based on the respective toolbox and the National Security framework. The DSA along with OCECPR are headed by the Communication Commissioner.

Implementation

Reform 1 aims to implement a web portal system for easy, interactive and integrated access to all relevant geographical data of electronic communication networks, according to the requirements of OCECPR and the provisions of the following Legislative proposals:

1. Article 22 of the Directive (EU) 2018/1972⁴⁰ of the European Parliament and of the Council of 11 December 2018 and BEREC Guidelines on Geographical surveys of network deployments BoR 20(42) which will be applied through secondary legislation (Commissioner's Decision).
2. Directive 2014/61/EU⁴¹ of the European Parliament and of the Council of 15 May 2014 on measures to reduce the cost of deploying high-speed electronic communications networks.

³⁸Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code

³⁹ Cybersecurity of 5G networks: EU Toolbox of risk mitigating measures (<https://digital-strategy.ec.europa.eu/en/library/cybersecurity-5g-networks-eu-toolbox-risk-mitigating-measures>)

⁴⁰Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code

⁴¹Including the proposed initiative "Review of the Broadband Cost Reduction Directive" as part of the actions announced in the Commission's Communication "Shaping Europe's Digital Future" (COM(2020)67 Final).

According to recital 62 of the Directive (EU) 2018/1972 Electronic communications “broadband networks are becoming increasingly diverse in terms of technology, topology, medium used and ownership. Therefore, regulatory intervention must rely on detailed information regarding network roll-out in order to be effective and to target the areas where it is needed. That information is essential for the purpose of promoting investment, increasing connectivity across the Union and providing information to all relevant authorities and citizens.” OCECPR will collect geographical data according to the provisions and purpose of the above legislative proposals, which is mainly information:

1. of physical infrastructures (location, type, routes, manholes, poles, cabinets etc.).
2. which is disaggregated at local level and sufficiently detailed to enable the geographical survey and designation of areas in accordance with Article 22 Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 and according to the BEREC guidelines⁴² to assist NRAs on the consistent application of Geographical surveys of network deployments.

The potential stakeholders of this system are OCECPR, Public Authorities, Electronic Communication Network Operators and end users. It is also expected that the availability of geographical information tools will enable end-users to determine the availability of connectivity in different areas, with a level of detail which is useful to support their choice of operator or service provider according to the provisions of article 22(6) of the EEC. In addition to tasks that stem from the legislative proposals, the gathered information will also be used for high level tasks such as policy decisions, design and implementation of more efficient regulation, understanding the level of competition and trends in the Electronic Communications market, but also the impact of imposed regulatory measures.

Target population

OCECPR, Public Authorities, Electronic Communication Network Operators and end users

Timeline

Q1 2022 - Adoption of Secondary Legislation

Q4 2022 - Launch of geographical survey

Q4 2022 - Contract Signature

Q4 2024 - Web portal development completion, testing and operation

• **Reform 2: Empower the national Broadband Competence Office (DEC of the DMRIDP)**

The Reform will empower the Department of Electronic Communications (DEC) as the single point of contact for public investment and cooperation with private investors and facilitator of the necessary administrative procedures, as well as a primary contributor to the implementation of the common Union Toolbox for Connectivity. [2019 CSR 4]

Challenges

The Department of Electronic Communications of the Deputy Ministry of Research Innovation and Digital Policy is designated as the Broadband Competence Office in Cyprus. The BCO Cyprus is currently understaffed and lacks the capacity to plan and implement broadband measures and ancillary actions in order for Cyprus to achieve the EU broadband targets. This has hindered the capacity of Cyprus to undertake measures to support the deployment of Very High Capacity Networks resulting in very low availability and penetration of such services. It has also resulted in a lack of coordination of private investments in Broadband, in terms of

⁴²BoR (20) 42 - BEREC Guidelines on Geographical surveys of network deployments

difficulties in obtaining relevant information regarding existing infrastructures, applying for its reuse and inefficiencies in rollout speed and cost of deployment. Furthermore, the processes for acquisition of rights of way and licensing for installation of facilities in the field are not suitable for the mass rollout of VHCN infrastructures and result in unnecessary overheads, delays and cost.

Objectives

The aim of this reform is twofold:

1. To structure and build the capacity of a new BCO within the DEC, which will operate as single point of reference in the broadband sector, for public investments, cooperation with private investors and facilitator of administrative procedures. After the reform, the BCO will have the capacity to ensure maximum impact of ESIF, RRF and CEF2 funding for broadband, by coordinating the public approach to address connectivity issues and tackle market failures in underserved areas. It will also be equipped to improve incentives for market operators to invest in very high capacity networks, by addressing and challenging the effectiveness of implementation of the Broadband Cost Reduction Directive⁴³ and its forthcoming review⁴⁴, the Connectivity Toolbox⁴⁵ and related soft-law instruments (e.g. BEREC guidelines^{46,47}).
2. To mature and prepare two public intervention projects included in the Recovery and Resilience Plan and support the BCO with all necessary material for the successful preparation of the two investments included in component 4.1 (namely “I1. Expansion of Very High Capacity Networks in underserved areas” and “I2. Enhance building cabling to be ‘Gigabit-ready’ and promote connectivity take-up”), including state-aid notification and preparation of the tender documents.

Implementation

The project will be implemented through the EU Technical Support Instrument (TSI) which has already approved project 21CY21 - “Structuring the Broadband Competence Office (BCO) in Cyprus and Technical Assistance on RRF Broadband Projects”. Amongst other things, the project will identify administrative bottlenecks and barriers to the rapid deployment of Very High Capacity Networks and will pinpoint areas of possible measures to address them. On this basis, the government will assess what legislative follow-up is required and will put forward the relevant proposal(s) as soon as possible, following a broader stakeholder consultation and impact assessment process. The aim would be to foster the successful finalisation of the legislative process within 20 months.

It will also provide technical support services for the preparation of Investment projects I1 and I2 by providing guidance and preparing the state-aid notification, drafting the tender specification for I1 and the implementation guide for I2 and supporting the BCO throughout all the maturation and preparation phases.

⁴³<https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex%3A32014L0061>

⁴⁴<https://ec.europa.eu/digital-single-market/en/news/public-consultation-review-broadband-cost-reduction-directive>

⁴⁵<https://ec.europa.eu/digital-single-market/en/connectivity-toolbox-foster-eu-wide-advanced-connectivity>

⁴⁶https://berec.europa.eu/eng/document_register/subject_matter/berec/regulatory_best_practices/guidelines/9027-berec-guidelines-to-assist-nras-on-the-consistent-application-of-geographical-surveys-of-network-deployments

⁴⁷https://berec.europa.eu/eng/document_register/subject_matter/berec/regulatory_best_practices/guidelines/9439-berec-guidelines-on-very-high-capacity-networks

Target population

Ultimate beneficiaries of the reform will be the Cyprus economy, society at large and individual communities as well as citizens and enterprises.

Timeline

Q3 2022 - Delivery of the "BCO-to-be" Structure

Q2 2024 - Entry into force of the new legislation

Investments

- **Investment 1: Expansion of Very High Capacity Networks in underserved areas**

The Investment aims to close the relevant investment gap in order to reach connectivity targets for very high capacity networks, as set above for fibre and 5G, through a public tender addressed to telecom operators, in areas of no private interest. [(2019 CSR 4), (2020 CSR 3)]

Challenges

Addressing the identified investment need of 65M€ to ensure that: (a) All premises in organised communities (urban or rural) will have access to internet connectivity offering a download speed of at least 100Mbps, which can be readily upgradable to 1 Gbps; (b) 100% of the population living in organised communities (urban or rural), and all major terrestrial transport paths will have uninterrupted 5G coverage with a download speed of at least 100 Mbps; and (c) Gigabit connectivity for all main socio-economic drivers will be in place.

Objectives

Reach identified connectivity targets through a public tender addressed to telecom operators, aiming to deploy very high capacity networks, in particular fibre and 5G, in areas of no private interest by closing the relevant investment gap.

Implementation

The Department of Electronic Communications of the Deputy Ministry of Research, Innovation and Digital Policy will be the implementing authority. The implementation of the project will follow a Private DBO (Design, Build and Operate) - Gap Funding model (i.e. the Contractor will undertake the design, construction and operation of the network, as well as part of the financing, and the public sector will cover the funding gap with a grant), following an open tender procedure. The geographical territory of the Republic of Cyprus which is under the control of the Government of Cyprus will be divided (indicatively) into 3 lots. For each lot, the maximum amount of public financial contribution will be set, and awarding criteria could include the requested public support as well as the price offered to end-users and to other retail operators. Provisions will be made so as to ensure competition, for example not all lots can be awarded to only one bidder.

The network that will be developed in each lot will concentrate the traffic from all the served locations to one (or more) central Points-of-Presence (POPs), where other retail operators can be interconnected, in order to provide services. Wholesale obligations will be imposed to the Contractor, as per the State-Aid provisions.

State Aid

State-aid compliance is required, in accordance with Broadband Guidelines (2013/C 25/01). According to the final version of the updated GBER Regulation (which is yet to be adopted), State-aid notification may not be necessary, or may be necessary only for certain parts of the investment.

Target population

The project location consists of discrete areas, scattered within the entire territory under the control of the government of the Republic of Cyprus. A mapping of existing and future private investments in fixed networks and 5G was recently performed by the NRA (OCECPR) for a timeframe of future investments until 2025. Based on the mapping of fixed networks, private investments are expected to serve areas where 90% of the population lives and cover 32% of the whole territory with services offering a download speed of at least 100Mbps, which can be readily upgradable to gigabit. For 5G networks, private investments are expected to cover 98% of the population and roughly 70% of the territory (including major terrestrial transport paths). Through the project, the population living as well as businesses of the remaining (underserved) areas, both in terms of fixed and 5G, will be covered. Synergies with CEF2 with regards to 5G communities will also be examined and the possibility to finance part of the active equipment in 5G Base Stations (i.e. radio systems, antennas etc) in underserved areas. Furthermore 1436 buildings hosting major socio-economic drivers are expected to be covered with symmetric gigabit speeds.

Timeline

Q1 2022 - Detailed project preparation finished (including detailed identification of the project geographical scope tender documents preparation)

Q2 2022 - State-Aid dossier to be submitted to DG Competition

Q2 2022 - Tendering completion

Q4 2023 - Contracts signature

Q2 2026 - At least 44 000 premises covered with gigabit upgradable infrastructures

It is noted that the project maturation and preparation (preparation of the state-aid notification and drafting of the tender specification) will be assured through the TSI approved project 21CY21 - "Structuring the Broadband Competence Office (BCO) in Cyprus and Technical Assistance on RRF Broadband Projects".

- **Investment 2: Enhance building cabling to be "Gigabit-ready" and promote connectivity take-up**

This Investment will encourage end users to connect with very high capacity networks, deployed close to their residence, through the reduction of cost of (a) internal cabling and (b) connection fee (the once-off setup fee of broadband service). [(2019 CSR 4), (2020 CSR 3)]

Challenges

Although ubiquitous population coverage with Very High Capacity Networks is expected by 2025, through a combination of private investments and public interventions, internal building cabling (to be "Gigabit-ready") is prerequisite for service take-up. Current take-up of 100Mbps services (DESI indicator 1a2- At least 100 Mbps fixed BB take-up) is only 2.4% for Cyprus (2020), which ranks 26th in EU-27

Objectives

The project aims to support end-users to connect with very high capacity networks (VHCN), deployed close to their residence, through the reduction of the cost of the necessary new internal cabling.

Implementation

The Department of Electronic Communications of the Deputy Ministry of Research, Innovation and Digital Policy will be the implementing authority. The implementation of the project will

follow a demand subsidy (voucher) scheme, addressed exclusively to physical persons (i.e. excluding enterprises) encouraging them to proceed with the construction of their building internal cabling, to be ready for connection to a very high capacity network, passing close to their premises. It applies to single tenant units (STU), as well as apartments in multi-dwelling buildings (MDU) with no internal cabling capable of supporting very high capacity services. The internal network will belong to the end-users (either single, or co-owners in case of MDU). For MDUs, all premises may be aggregated, in order for the internal cabling to cover the whole of the building. That is, an owner/tenant of a single premise within the MDU will be submitting an application in the IT system for the whole of the building in which he resides (identifying the number of premises to connect). The voucher will be issued digitally with a total price that will be calculated based on the number of premises to connect. End-users will be able to select an installer of their choice (among the list of the certified installers⁴⁸ that will be available in the IT system) to perform the works. After their completion, installers will upload in the IT system the “Gigabit-ready” certificate for the building⁴⁹, along with the acceptance form signed by the owner/tenant who issued the voucher. Subsequently, the voucher is redeemed, and the respective amount is transferred to the installer’s bank account. A procedure will be put in place for the on-site verification of an adequate sample of the installations. A Help Desk will also be available to support interested users and installers during the whole process.

The voucher value per premise will be fixed (independently of the actual cost charged by the installer), to lower administrative complexity.

Interest from the market has been confirmed during the pilot “demand voucher” scheme that started in 2019 (<https://superfast.cut.ac.cy/>). Extensive know-how has been acquired, both by the Responsible Authority and the market. Costing estimations will be assessed in the context of the public consultation of the new Broadband Plan 2021-2025 (to be finished by 2021Q2) and based on feedback, potential adjustments will be made to assure market interest. Indicative voucher value is set to 110€ per premise (applicable either for an apartment in a Multi-Dwelling Unit-MDU or a single house / Single-Tenant Unit – STU)

It is noted that the design of the support scheme ensures that the financed investments respect the ‘do no significant harm’ principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call(s) for tenders of the scheme.

State Aid

State-aid compliance might be required (regarding indirect aid). If confirmed, then in accordance with Broadband Guidelines (2013/C 25/01), the State-Aid dossier is expected to be submitted to DG Comp by end 2022 Q2.

Target population

End users countrywide will be eligible.

Timeline

Q3 2021 - Detailed voucher price calculation and cabling technical specifications

Q4 2021 - State-Aid dossier (if required) to be cleared by DG Competition

Q1 2022 - Voucher availability start

Q2 2025 - Voucher availability finish

⁴⁸ OCECPR Certification scheme regulation - [Installer of intra-building cabling infrastructure \(YEKO\)](#)

⁴⁹ ‘Certificate of Installation of the structured cabling’ as per the OCECPR Certification scheme procedure PR.YEKO.01.04.

It is noted that the project maturation and preparation (preparation of the state-aid notification and drafting of the implementation guide) will be assured through the TSI approved project 21CY21 - "Structuring the Broadband Competence Office (BCO) in Cyprus and Technical Assistance on RRF Broadband Projects".

- **Investment 3: Submarine link to Greece**

This investment will create a new submarine link that will connect Cyprus with Greece, providing interconnection to the region's most important internet exchanges (Athens, Sofia and Chania). [(2019 CSR 4), (2020 CSR 3)]

Challenges

Cyprus has the most expensive Internet service in the EU, ranking last in the respective DESI Indicator (1d1 Broadband price index). Despite the fact that several submarine cables land in Cyprus, the cost of backbone connectivity is very high and is a factor impacting the prices for the end-users. This is due to the fact that most of the existing cables are either old or lack the capacity to cope with the ever-increasing needs of the end-users. Reliable and affordable backbone connectivity is a prerequisite for the development of the Gigabit Society. Given that the backbone capacity needs are expected to significantly increase with the deployment of ultrafast access infrastructures, if no measures are taken, the lack of capacity of the current backbone systems will deprive citizens and businesses of access to Gigabit connectivity at competitive prices.

Objectives

The purpose of the project is to create a new submarine link that will connect Cyprus with Greece (Crete), where it will be connected to the planned Greek subsystem, through which it will have access to the region's most important internet exchanges (Athens, Sofia and Chania). The deployment of a new separate backbone route between Cyprus and Greece, strategically supports connectivity to the most remote member-state of the EU and plays an essential role in ensuring digital connectivity of the island. It will have a significant positive impact on the available capacity and the commercial offers of backbone connectivity, needed to provide very high-speed services to the end users (both through fixed and mobile access networks). Furthermore, it will offer significantly higher performance (in terms of resilience, security, redundancy and latency) compared to existing cables, so as to secure the competitive availability, reliability and resilience of such vital infrastructures. Through this alternative road, it is expected that the capacity of the submarine systems to international telecommunication nodes will be multiplied, while ensuring increased levels of security and resilience for the entire telecommunications infrastructure of the island.

Implementation

The Department of Electronic Communications (DEC) of the Deputy Ministry of Research, Innovation and Digital Policy (DMRIDP) will be the implementing authority. The implementation of the project is expected to follow a Private DBO - Gap funding model (i.e. the Contractor will undertake the design, construction and operation of the network, as well as part of the financing, and the public sector will cover the funding gap with a grant), following an open tender procedure. Wholesale obligations will be imposed to the Contractor, as per the State-Aid provisions. A proposal for project funding will be submitted to CEF2 Digital, however, the securing of funding through CEF2 is not a prerequisite for the implementation of the investment.

State Aid

The project may fall under the General Block Exception Regulation that is currently under revision. According to the currently proposed draft of the revision, GBER can be applied if

project receives a CEF2 “Seal of Excellence”.

Target population

All internet users in Cyprus will potentially be addressed by this new backbone connectivity link.

Timeline

Q4 2021 - RFI/Market consultation

2022 – 2023 - Detailed studies to be performed

Q4 2023 - Tender procedure

Q4 2024 - Seabed geophysical survey for the cable route (to be performed by the contractor) and Approvals/Licensing (to be obtained by the contractor) finished

Q4 2024 - Signing of contract

Q1 2025 - Construction start

Q2 2026 - Construction finish

10.4 Cross-border and multi-country projects section to be included in the RRP

Submarine cables play an essential role in ensuring high-capacity and high-performance (in terms of resilience, security, redundancy and latency) digital connectivity throughout the EU, in particular for isolated islands like Cyprus. The Covid-19 pandemic has dramatically confirmed our dependence on and the importance of submarine cables.

The submarine cable proposed under Investment 3 of component 4.1, will be a cross-border, multi-country project, between Cyprus and Greece and will connect the two countries at the island of Crete. This part of the route (Cyprus-Crete) is the Cypriot subsystem and will be fully disbursed by Cyprus. At Crete, the cable will interconnect to the Greek subsystem (an underwater cable network that will be developed within the Greek territory and will be fully disbursed by Greece) to form a submarine system interconnecting Cyprus with the region’s most important internet exchanges (Athens, Sofia and Chania).

The Cypriot and the Greek subsystems will be launched as a single project following the same modalities for procurement and reporting, while at the same time being completely separated in terms of geography and cost disbursement to avoid overlaps and delays in assessment and implementation.

The project is expected to reduce the cost of international connectivity for Cyprus and to enhance the capacity, resilience and redundancy of the existing international routes. It will further increase the capacity of R&D interconnection (current connectivity of Cyprus to the GEANT network is only 4 Gbps with Frankfurt and 4 Gbps with Athens) along with the increase of HPC capabilities through the interconnection of the HPC Facility from Cyprus Institute with ARIS from GRnet)

A very good level of coordination exists between the authorities of the two countries, both at political and operational level. The project is also being discussed in the context of CEF2 with European Commission as a project of common interest.

10.5 Green dimension of the component

Digital applications and technologies can be powerful tools for advancing environmental protection, nature and biodiversity conservation, circularity, and climate action. Digital infrastructures and devices increasingly consume valuable raw materials and energy along

global value and supply chains during design, development, manufacturing and use, and thus can contribute to greenhouse gas emissions, pollution, degradation of nature, biodiversity loss and waste generation.

The component contributes both indirectly and directly to Green transition:

- Indirectly, since the availability of VHCN digital connectivity is an enabler for tele-working, while roadside uninterrupted 5G coverage contributes to sustainable transport. Furthermore, it is a prerequisite for the development of digital solutions that support the decarbonisation of all sectors and reduce their environmental footprint. 5G based solutions, for instance, are expected to bring about important efficiency gains in manufacturing and logistics, contributing also to a move towards a paperless environment. 5G networks will also facilitate deploying of large-scale sensor networks that will support the collection of environmental and climate data to underpin disaster prevention and improved policy making.

In less densely populated or inaccessible areas (such as forests or mountains) very high capacity networks based on wireless solutions such as 5G are also expected to help develop new local business models (like rural tourism or smart agriculture), thereby contributing to the green transition of local economies through inter alia streamlined consumer-supply chains.

- Directly, by allowing lower energy consumption for broadband networks: optical fibre networks are more energy-efficient than copper networks (which use a much larger number of active components requiring power), especially in view of increasing traffic volumes due to the data economy.

Ubiquitous coverage with fibre-based networks allows copper switch-off and the replacement of old and dense copper-Central-Offices with modern and fewer fibre-Central-Offices, therefore contributing to the digital transition and the Green Deal, complementing the effort to replace other obsolete or less performant infrastructure.

10.6 Digital dimension of the component

ICT and broadband are key drivers to enhance socio-economic development policy in Europe. All businesses, services and citizens must be able to benefit from ultrahigh speed, next generation broadband infrastructure in order to ensure Europe's competitiveness in the global economy. Availability of top class connectivity, by means of fibre networks, together with the right set of digital skills in the workforce is predicted to have an impact on total factor productivity of the European economy and result in higher GDP growth (increasing broadband penetration by 10% implies GDP growth of 0.25 to 1.38%, ITU⁵⁰).

As demands for reliable and fast connections are expected to continue to increase, we should encourage investment in high quality and affordable communication infrastructures and services. The use of the IoT and their demands on communication networks will grow dramatically over the next period. The IoT will be a key element of the digital future. It will increasingly enable digital technologies to embed themselves in all aspects of our economies and societies. As more people and things connect, greater demand will be placed on networks. Many connected devices, including those that are powered by emerging digital technologies like artificial intelligence (AI), will require the transmission of huge amounts of data. Similarly, as connected devices become widespread in critical sectors such as health or energy, the safe and reliable functioning of related systems will depend on the reliability of communication networks.

The (proposed) Regulation COM (2020) 408 establishing a Recovery and Resilience Facility sets

⁵⁰<https://www.broadbandcommission.org/Documents/publications/davos-discussion-paper-jan2016.pdf>

a binding target of at least 20% of the plan's total allocation to contribute to the digital transition or to the challenges resulting from it. The new National Digital Strategy and the new National Broadband Plan (which is in progress), will contribute to ensuring the coherence and reinforcement of the synergies between actions and investment in different areas of the digital economy. Digital connectivity reforms and investments will be structured as coherent actions, anchored into the wider local, regional and national digital transition plans. Investments in appropriate very high capacity networks, in particular 5G and/or fibre infrastructure deployment projects, has important spill-over effects on the competitiveness of the whole digital sector (supply of IT equipment, cloud technologies and solutions, data analytics, AI, high performance computing, etc.), across all sectors of the economy such as health, transport, education, agriculture, smart mobility and also for public administration.

Effective communications networks are very important in a modern society and are a prerequisite for digitalisation. Technologies such as artificial intelligence, blockchain, data analytics, Internet of Things (IoT), automated driving, smart cities, robotics etc. require very high speed, almost latency free and secure networks. There are still large gaps in connectivity mainly due to the lack of effective policies, corresponding tools and investment. The deployment of Very High Capacity Networks is both a prerequisite and an enabler for such services and applications making use of them.

10.7 Do no significant harm

In all measures included in this component that foresee construction works and purchase of new equipment, machinery, vehicles etc., all procurement procedures will require compliance with the DNSH principle as explained in detail in the separate DNSH assessment of the corresponding measure. This will apply both for investments in the public sector and for financial support schemes to the private sector.

See separate assessment performed on this area included as ANNEX 3 - Assessment of the compliance of the Cyprus Recovery and Resilience Plan with the 'Do No Significant Harm' Principle.

10.8 Milestones, targets and timeline

The milestones and targets for the investments/reforms of this Component are presented in the attached table.

10.9 Financing and costs

The cost for each milestone and target is presented in the attached table.

10.10 Loan request justification (if applicable)

Reforms/Investments under this Components will be covered by the grant element of the Plan.

Policy Axis 4 Towards a digital era

Component 4.2 Promote e-government

11. COMPONENT 4.2 Promote e-Government

11.1 Description of the component

Policy area/domain: Digital

Objectives:

In today's world, digital transformation is no longer an option but rather a necessity that presents an enormous growth potential for countries across the globe. Digital transformation covers a wide range of technological, economic and societal innovations that result from digitisation.

This Component is a fundamental part of the overall policy and strategy of the Deputy Ministry of Research, Innovation and Digital Policy (DMRID) for the digital transformation of Cyprus, fostering a new economic model with a vision to become a dynamic and competitive economy, driven by research, scientific excellence, innovation, technological development and entrepreneurship, and a regional hub in these fundamental areas.

The National Digital Strategy evolves under five key initiatives:

1. Promote eGovernment by redesigning the Ministry's internal enterprise architecture and governance model, optimising service delivery model, delivering a resilient, robust and secure ICT infrastructure;
2. Deliver a stronger digital economy and increasingly more digital and competitive industries;
3. Facilitate high speed network connectivity and increase take-up;
4. Promote an accessible and inclusive society that has the skills and the motivation to embrace the national digital transformation and actively participate in digital communities;
5. Ensure security in data and infrastructure and increase the trust of the public to the online transactions.

For the development of eGovernment projects, the approach is 2-tier: rapid deployment of small-scale digital solutions (microservices) and parallel long-term implementation of mega e-government projects. The DMRID has a holistic approach encompassing all governmental authorities. The ultimate goal is to create an end-to-end, high quality citizen-and business-experience throughout their interactions and 'touch-points' with the public sector, drive cost efficiencies, enhance reliability, security and resilience, and draw genuine trust in the system and the technologies themselves.

Additionally, a high level of broadband connectivity is key for digital services to be made practical and accessible, and of course affordable; the aim is to facilitate high-speed connectivity, as well as to proceed with the deployment of 5G networks within 2021. Through a new national broadband plan, Cyprus is moving rapidly towards a gigabit society (see Component 4.1).

Crucial constraints of the digital transformation are the lack of digital skills of the workforce and of the general population. In order to minimise the digital divide, and in addition to the effort of aligning educational curricula to meet current and future industry needs, Cyprus is heavily investing in the upskilling of the workforce, from basic to advanced, as well as in training and certification programmes in cross-sectoral competencies, such as business analysis and project management, both within the public and the private sectors (see Component 5.1).

In line with the National Digital Strategy, Cyprus aims to become a fit-for-the-future society and knowledge-based economy enabled by digital and emerging technologies that will

drive economic prosperity and competitiveness to position the country as a resilient regional player in the European digital economy and a regional science and high-tech hub.

Despite solid progress in both e-government and digital performance, Cyprus still trails behind its peers in these areas as measured by indices such as the EU's Digital Economy and Society Index (DESI) where Cyprus ranks 22nd out of 28 EU Member States in 2019.

The Government has recently established DMRID (since March 2020), to assume ownership of the Digital Strategy, thereby demonstrating political commitment in accelerating the digital transformation of Cyprus and improve its position in the DESI index moving closer to the EU average.

The main objectives of this Component can be achieved by:

- **Rebuilding Government IT Infrastructure including:**
 - building a solid, integrated and modern government digital architecture blueprint and standards (key for the digital transformation of the government entities and the way they operate),
 - integration of the various public sector information systems and databases to ensure adherence to the once-only principle and to provide efficient and secure digital public services that will make citizens and businesses lives easier,
 - redesign of the single government website portal,
 - establishment of a government cloud to consolidate systems and data scattered across government IT systems and implement a “cloud first” migration strategy, and
 - adoption of an as-a-Service aaS model (Infrastructure as a Service, Platform as a Service, Software as a Service) across government to ensure that the public sector can refresh their IT systems more quickly and upgrade to new technologies more easily.
- **Building a “Digital Services Factory” capable of delivering standardised end-to-end digital micro services that will meet citizen’s needs,**
 - adopting a model to ensure the rapid implementation of services using Agile/Scrum methodologies,
 - supported further by the development of strong governance mechanisms to safeguard the sustainable deployment of services.
- **Improving delivery, maintenance and operating model of large-scale IT projects** including the redesign of the lengthy procurement processes currently in place (reduction in project life cycle from 7-10 years to 2-3 years). **Reorganising institutional structures, operating models, roles and responsibilities, processes, skills (upskilling and certification) and competencies,** human capital and performance management to support the operation of the DMRID in an effective and efficient manner. During the reform and reorganisation phase, bridging the gap (skillset and human resources) through the acquisition of services from the private sector (Chief Information Security Officer, Enterprise Architect etc). In parallel, there will be on going and on the job training of DMRID staff to acquire the necessary competences in house.

Reforms

- Reform 1: Digital Services Factory.
- Reform 2: Definition and implementation of a new cloud policy with regard to Government IT systems and services.
- Reform 3: Police Procedures Digitalisation Digipol.
- Reform 4: Setting up the Beneficial Ownership Registry in accordance with Directive (EU) 2015/849.

Investments

- Investment 1: Digitalisation in various Central Government Ministries - Services
- Investment 2: Digitalisation of the Cyprus Ports Authority

Flagship initiatives: Modernise, Scale-up, Reskill and Upskill.

Total estimated budget to be funded through the RRP: €36,4 mln

11.2 Main challenges and objectives

Main challenges

Despite progress, Cyprus still trails behind its peers in both e-government and digital performance as measured by indices such as the EU's DESI, where Cyprus ranks 22nd out of 28 EU Member States in DESI 2019, and the Digital Economic Opportunity Index (DEOI), where Cyprus ranks 19th, 18th and 17th out of 22 in digital maturity against digital skills, digital technologies and digital accelerators respectively. In relation to IMD World Digital Competitiveness Ranking (WDCR) Cyprus ranked 54th out of 63 countries in 2019.

However, the recent experience amidst the COVID 19 pandemic is one that demonstrates that Cyprus has great potential to transform and grow through digital. During the pandemic outbreak, the authorities moved with unprecedented agility and speed, under pressing timeframes, to meet the needs dictated by the "new normal" of lockdowns and social distancing through digitalising services. This proved Cyprus' digital transformation potential and its ability to embody the ethos of the digital era.

The context in which the state of e-government in the public sector has been developed so far consists of various challenges and impediments which are described below:

- Service Delivery Model- The Cypriot government was implementing a digitisation-focused approach to digital transformation, that is improving operational efficiency by digitising paper-based government processes without considering the modernisation and optimisation of existing service models for the digital era i.e., their digitalisation, hence resulting in digital government services which were not embraced by the public, and also caused issues of vendor lock-in.
- E-government projects implementation and IT systems - Public procurement philosophy does not focus on value and benefits assessment and is time consuming. Stumbling blocks of faster digital enablement consist of vendor lock-in, lack of agility, substantial investments in systems that have now become legacy, very long project life cycle (almost 7-10 years from the starting date until the full implementation of the project) and low interoperability of government ICT.
- Lack of skilled resources -The poor or inappropriate allocation of resources and the lack of specialist skillsets and experience within the government. It also prevented the government from identifying its overall deficiencies and expanding its resource pool with domain-specific competencies in areas such as portfolio/program/project management, cyber security, data analytics, DevSecOps, change management and others that are crucial to digital transformation.

Objectives

The overall vision of the National Digital Strategy of Cyprus relies on achieving four key objectives:

- Making technology work for people. Technology designed with people in mind (user-centred), offering end-to-end quality services to citizens/businesses and optimisation of systems, structures and processes.

- Creating a fair and competitive digital economy, focusing on the development of an economy where companies of all sizes, in any sector can compete on equal terms, while boosting business productivity and competitiveness through the development, marketing and use of digital technologies, products and services.
- Creating an open, democratic and sustainable digital society focusing on the development of a trustworthy society in which citizens and residents are empowered in how they act and interact, while building confidence that Cyprus' Digital Transformation journey is deeply rooted in democratic values, respects fundamental rights, and contributes to a more sustainable, resource-efficient economy.
- Making Cyprus a resilient regional player with seamless business environment, focusing on the achievement of a digitally enabled, diversified economic growth through fast uptake of emerging technologies and alignment with global best practices and standards.

The recently established Deputy Ministry of Research, Innovation and Digital Policy is focusing on important strategic initiatives to drive the country's digitalisation and anthropocentric character of the digital transformation and to develop a new economic model for Cyprus. These initiatives focus also to face the various challenges and impediments described above.

A solid, secured, integrated and modern government digital architecture will be key to achieve the transformation to a digital government and society where various IT systems interact with each other and through the government-to-government communication and interoperability framework, achieve the once-only principle (citizen to provide data to the government only once). Moreover, no duplication of data should exist in the various databases of the governmental organisations and each database should become the single source of truth for the data that it has the responsibility for, according to the Law. The database of the Civil Registry Department and the Company Registrar Department should be the single source of data for the citizen and company respectively. There is no need to collect and verify similar datasets by each governmental department.

Building a new delivery model is key for the development of end-to-end quality digital services (Digital Services Factory) where an Agile/Scrum methodology for the development of micro services will be applied, through redesigning and reengineering of procedures, and following a citizen journey that provides adaptability, response to change and is based on user experience. Open standards for the development of eServices will be used. The digital services factory will cover the needs of the Government in the development of micro-services, such as forms/applications of the government (almost total 500 public services) which are currently paper based and legacy backend systems exist.

The services will be provided securely to citizens through a single government website portal Gov.CY that will be designed to meet user needs. Single-Sign-On and digital identity, are also key enablers for the secure provision of eServices. Furthermore, common mechanisms like 'ePayments' offering several methods of payments (visa, instant payments, direct banking etc) and 'notification' (SMS, email etc.) will be utilised.

Improvements in the delivery, maintenance and operating model of large-scale e-government projects are also a necessity. The project life cycle should be significantly reduced following Agile/Scrum methodologies for the implementation of e-government projects. Moreover, the policy of cloud first will be applied, where a hybrid approach, government cloud or public cloud, depending on the data classification, will be followed. The government cloud will consolidate systems and data scattered across government IT systems and implement a "cloud first" migration strategy. The government will stop owning equipment and support functions such as maintenance, backups will be provided by the private sector.

It is noted that in all Ministries, the DMRID will appoint project managers to manage and monitor the implementation of strategic projects. The project managers will plan and coordinate the implementation of these projects and determine the appropriate measures to be taken to monitor

the progress of the projects, manage the allocated resources and perform the necessary corrective actions where necessary.

In order to deliver the expected results, DMRID and the Department of Information Technology Services (DITS) that falls under it, need to be properly organised and the necessary capacity needs to be acquired in terms of human capital, resources, and infrastructure components to successfully execute the service delivery model. To this effect, DMRID with the support of KPMG (project funded by DG REFORM), is in the process of establishing new organisational structures and the capacity build-up in order to create in house the necessary skills-sets required to drive the digital transformation.

CSRs addressed

Reforms /Investments	Year / CSR Number Recital/s	Justification
Reform 1: Digital Services Factory.	2019 CSR 4	Digitalising the government services will enhance the efficiency and/or enable the provision of online, secure and prompt services to citizens and society, in a user friendly, efficient and effective way which ultimately will facilitate the interaction with public services, without the need for physical presence.
Reform 2: Definition and implementation of a new cloud policy with regard to Government IT systems and services	2020 CSR 3	
Reform 3: Police Procedures Digitalisation Digipol.	2020 CSR3	Reforming the work environment and procedures to adjust to digital environment needs training not only for Police officers but for the citizens as well. A multiplicity of measures will be undertaken to adequately train actors (online courses, videos, step-by-step guides) in order to maximise uptake.
	2019 CSR4	Digitalising the services of the police is beneficial for both citizens and police officers as procedures are simplified and efficient. In addition, it will enable the quantification of performance measures and identify areas of improvement through data analytics services that will be developed and implemented.

Reforms /Investments	Year / CSR Number Recital/s	Justification
<p>Reform 4: Setting up the Beneficial Ownership Registry in accordance with Directive (EU) 2015/849.</p>	<p>2019 CSR 4 2020 CSR 3</p>	<p>Digitalising the government will enable the provision of online, secure and prompt services to citizens and society, in a user friendly, efficient and effective way which ultimately will facilitate the interaction with public services, without the need for physical presence.</p> <p>The digitalisation agenda is a horizontal issue that affects the government, the economy and the society, and advancements in this area play a vital role in enhancing the competitiveness as well as the resilience of our economy.</p>
<p>Investment 1: Digitalisation in various Central Government Ministries - Services</p>	<p>2019 CSR 4 2020 CSR 3</p>	<p>Digitalising the government will enhance efficiency and enable the provision of online, secure and prompt services to citizens and society, in a user friendly, efficient and effective way which ultimately will facilitate the interaction with public services, without the need for physical presence.</p> <p>The digitalisation agenda is a horizontal issue that affects the government, the economy and the society, and advancements in this area play a vital role in enhancing the competitiveness as well as the resilience of the economy.</p>
<p>Investment 2: Digitalisation of the Cyprus Ports Authority</p>	<p>2019 CSR4</p>	<p>Time saving procedures and automatisation will enable the Authority to assume further responsibilities.</p> <p>Encourage electronic communication to mitigate the impact of the corona crisis.</p> <p>Establish procedures in place that will enable for immediate response to crisis situations, including off-site completion of work.</p>
	<p>2020 CSR3</p>	<p>Upgrade network efficiency and increase data security.</p> <p>The implementation of this project will safeguard ship navigation in Cyprus' waters, as well as sustain the growth of ship transport ensuring the safety of ships and their crews. Additionally, it will allow for better monitoring, early detection and</p>

Reforms /Investments	Year / CSR Number Recital/s	Justification
		<p>mitigation of air / marine pollution from ships.</p> <p>The upgrade will allow CPA to successfully manage and secure the increased flow of data, as a result of extensive use of the Ports Community System and the ongoing digitisation of operations.</p> <p>The upgrade will also provide efficiencies to the operations of CPA, as well as cover current and future needs of data transfer.</p> <p>Furthermore, it will contribute to the integration of the sector to the digital multimodal logistic chain. Additionally, it will aid in the seamless transition of data between several users, reducing duplication and increase time efficiencies and bureaucratic procedures.</p>
	2020 CSR3	<p>The implementation of this investment will improve the efficiency, attractiveness and environmental sustainability of the CPA and in conjunction the maritime transport.</p> <p>Digitisation of procedures will enhance their automation and time / operational efficiencies.</p> <p>Adequate and correct infrastructure will result in the rise of Cyprus as a shipping state, attracting more companies to invest in the merchant shipping sector, and new jobs.</p> <p>The implementation of PCS for the transfer of data between Shipping Agents and the relevant Governmental Departments reduces paper usage and waste.</p>

11.3 Description of the reforms and investments of the component

Reforms

- Reform 1: Digital Services Factory

Challenges

Weak or underdeveloped online public services providing not a user-friendly experience.

Objectives

The purpose of the Digital Services Factory (DSF) is to build a new delivery model for the development of end-to-end quality digital services aiming to improve the quality of life of citizens and businesses. The provision of digital services to the public, in a user friendly, efficient and effective way will ultimately facilitate the interaction with public services, without the need for physical presence. The DSF will develop advanced digital services following an Agile/Scrum methodology, through redesigning and reengineering of procedures, by following a citizen journey that provides adaptability, response to change and is based on user experience. Open standards for the development of eServices will also be used.

Services will be provided securely to citizens through a single government website portal Gov.Cy that will be designed to meet user needs. Single-Sign-On and digital identity, are the basic key enablers for the secure provision of eServices. Furthermore, existing common mechanisms like 'ePayment' offering several methods of payments (visa, instant payments, direct banking etc.) and 'notification' (SMS, email etc.) will be utilised.

The services will be designed, developed and maintained by DSF team that will consist of experts of different specialties with the appropriate skills and qualifications.

This is a two - phase project:

- In Phase I, through the Agreement with the Government Digital Services (GDS) of the UK, the Deputy Ministry of Research, Innovation and Digital Policy will: (a) establish the core team of DSF, (b) define the standards and procedures for the development of digital services, and (c) built and develop a number of digital services with a hands-on approach.
- In Phase II, the said Deputy Ministry will proceed with the development of digital services in an industrialised fashion, in cooperation with the private sector, using the methodologies defined in Phase I.

Implementation

PHASE I: DEFINITION OF SERVICE DELIVERY MODEL

A framework agreement with GDS has been signed in order to define the required prerequisites for the establishment of DSF that would allow for the efficient provision of high-quality and user-friendly digital services to the public. The ultimate objective of this framework agreement is to establish the DSF of the Government of Cyprus through the provision of specialised services.

Phase I has two sub-phases as described below:

- Sub-Phase A: Evaluation of the current situation and definition of next steps. This sub-phase commenced in November 2020 and was completed in January 2021 with deliverables the evaluation of the current situation on the delivery of eServices model and recommendation of a long-term road map to establish the DSF:
- Sub-Phase B: based on the deliverables above the related actions will be planned and implemented. This sub-phase is expected to have a duration of 18 months with the following outputs:
 - Output 1: establishment of the digital service factory core team, consisting of experts with different specialties, by providing the necessary knowledge and training in order to develop/acquire the necessary skills for the development of digital services with agile methodologies.
 - Output 2: delivery of required standards

- o Output 3: development of a number of digital services by the core team and GDS, with a hands-on approach, using flexible development methods (agile / Scrum).

PHASE II- DEVELOPMENT OF DIGITAL SERVICES

In Phase II, the DMRID will develop digital services in an industrialised fashion, in cooperation with the private sector, using the methodologies defined in Phase I.

At the moment, DMRID has identified around 300 digital public services to prioritise and implement. A number of digital services will be grouped into buckets/clusters, based on certain criteria. For example, in relation with other initiatives taking place at European level, like the eServices of the Single Digital Gateway. Also, eServices of line Ministries that use the same back-end system could be grouped to form such buckets/clusters of services.

To implement these buckets/clusters of services, DMRID will prepare Requests for Proposal (RFP), based on a model RFP, for the purchase of services from the private sector, according to the standards and agile methodology defined in Phase I.

These digital services will be designed and developed with the support of the core DSF team. Indicative roles for the DSF team include: Product Manager, Service Designer, User Researcher, Interaction Designer, Content Designer, Subject matter expert, Delivery manager, Technical Architect, Developer, Business relationship manager, Procurement Officer.

Following the conclusion of the RRP, the projects will be funded by the State Budget or other EU funding schemes as applicable.

Target population

The public at large and the business community.

Timeline

Q4 2022 - Definition of the Service Model Delivery - Completion of the Agreement signed with Government Digital Services (GDS) of the UK

Q4 2023 - At least 45 Successful delivery of new digital services

Q2 2026 - 150 Successful delivery of new digital services

State Aid

Not applicable

- **Reform 2: Definition and implementation of a new cloud policy with regard to Government IT systems and services**

Challenges

Today, government IT systems/databases are scattered in several government locations/data centres, with limited security provisions and very high maintenance and operating costs.

Objectives

The Government of Cyprus has taken the decision to follow a Cloud-First policy approach and embark on a cloud journey. In this context, the cloud policy is currently being formulated and will include criteria regarding data classification, data residency and the hosting and operation of the government IT systems either in a public cloud or a government private cloud (G-Cloud) environment.

Towards the cloud journey, all existing, under development and forthcoming central Government IT systems will be evaluated in order to decide whether they will be hosted and operated in a public cloud environment or the G-Cloud. That would require activities in the following areas:

- Strategy and procurement methodologies
- Recruitment, upskilling and reskilling of personnel
- Operating model
- Technical aspects (cloud architecture, assessment, deployment, migration, running, optimising, change management)

Implementation

Public Cloud: The first engagement that will leverage the benefits of Public Cloud will be the collaboration platform for circa 16,000 government employees which is included in this project and will be acquired as software as a service (SaaS).

G-Cloud: G-Cloud will be centrally managed (cloud broker) and will be providing co-location, infrastructure as a service (IaaS), platform as a service (PaaS) and SaaS, as appropriate, to Government institutions. It will be implemented on the premises of Tier 3 data centre providers in Cyprus. The decision regarding the initial beneficiaries that will utilise the G-Cloud will be taken after consideration of the readiness of each system. Initially, the G-Cloud will be utilised by a limited number of Departments and Ministries of the Government that will use it to host their IT systems and digital services. For example, this can include the following new IT systems that are under development:

- Registrar of Companies system
- Integrated information system for the Road Transport Department
- Customs system
- Tax Department system
- ERP system

The main external parties that are expected to be engaged in the Cloud initiative are:

- (1) local cloud – data centre providers, Telcos such as CYTA, CableNet, Cloud8, EPIC
- (2) IT Companies – consulting groups for the consultancy and migration services and
- (3) Global Cloud Vendors (with EU data centres) such as Amazon, Microsoft, Google.

The implementation phase will consist of 6 Project Pillars as follows:

PILLAR 1: ACQUIRE LOCAL DATA CENTRE FACILITIES

Two different but identical Tier3 locations will be acquired in the form of a rental agreement for a period of 5 + 5 years in a distance of at least 30 km between them.

PILLAR 2: ACQUIRE CONSULTANCY SERVICES

In parallel with the Pillar 1 consultancy services as well as training will be acquired.

The Cyprus Government has recently reached an agreement with the German public consultancy firm PD⁵¹, for the provision of consultancy services for the development of a digital architecture for Cyprus' government, including the G-Cloud (project period is 6 months). After the PD project

⁵¹PD – Berater der öffentlichen Hand

completion, further consultancy services will be purchased to address the migration issue of current IT systems, that is to assess how existing IT systems can be migrated to a cloud environment. The implementation of the migration process will require the collaboration of the vendors and the business owners of these, as well as, where applicable, the G-cloud broker.

PILLAR 3: CREATION OF THE G-CLOUD ENVIRONMENT

With the support of consultancy services, the Government of Cyprus will prepare a tender for the development and operation of the G-Cloud environment. The tender document will include the technical specifications for the hardware and software needed to build the G-Cloud environment as well as the technical team that will be running the G-Cloud. The equipment and the technical team that will comprise the G-Cloud environment will belong to a private company, and the procurement by the Government will be in the form of a long-term contract. The initial contract will have an anticipated duration of 10 years and it will include services for the initial installation of the G-Cloud and the management and maintenance of all the installed software and hardware components. Furthermore, it will also include the management and the day-to-day activities for running the G-Cloud, including the process of adding new Systems to the G-Cloud. The agreement will include expansion clauses to cover additional future needs.

The initial G-Cloud implementation will have the capacity to host all the IT systems that are scheduled to be deployed after the creation of the G-cloud (some of them are currently under development) and a number of existing cloud-ready IT systems that are now hosted in other siloed environments. The G-Cloud will provide cloud computing services in the form of IaaS, PaaS and SaaS.

It is noted in this connection that the DMRID has adopted the “as-a-Service aaS” model (Infrastructure as a Service, Platform as a Service, Software as a Service) across the government. The model ensures that the public sector can replace their IT systems in a speedier manner and upgrade to new technologies in a less cumbersome manner. Applying this method for the development of IT systems, the Contractor (Vendor) provides the software developed, the necessary hardware as well as operational / support services (including bug fixing, backup, replacement of equipment) throughout the contract duration, against an agreed fee (e.g. annual). This method of IT system development ensures the contractor maintains full responsibility for the system throughout the lifetime of the contract and not only up to the stage of system delivery and go live.

The framework for the provision of these services is governed by a Service Level Agreement (SLA) for a number of years, some of which fall within the eligibility period of the RRF. The total duration of the service level agreements usually extends across more than five years. The cost which will fall within the RRP horizon is equivalent to the initial development, hardware and software costs including an initial bug fixing period for a traditional IT system’s contract. Costs incurred during the remaining period of the service level agreement will be covered from the national budget, ensuring sustainability of the project, allowing also for the distribution of the total investment cost across several years and thus better management of public funds.

PILLAR 4: MIGRATION OF EXISTING IT SYSTEMS

Systems identified / planned / assessed in PILLAR 2 will be migrated as part of the activities of PILLAR 4 in close collaboration with the existing vendors. Systems will be modernised / adopted / extended / rehosted either on the public Cloud or the G-Cloud, taking into consideration the Digital Architecture that will be developed in PILLAR 2. Common layers across all the systems such as Authentication (Single Sign On), Security, Database etc. will be evaluated centrally.

For the delivery of the PILLAR 4 activities, separate tender awards will be made with vendors of the existing IT systems (10 – 15 different awards are expected).

PILLAR 5: SOC – SECURITY OPERATION CENTRE

When all the other PILLARS are underway, and the migration of the existing IT Systems has started (with first workload being in production) a decision of a SOC must be taken. SOC will monitor all the new infrastructure and the IT Systems in the new Data Centres 24 hours. At the beginning this can be acquired as a service and in the future, an in house SOC can be established.

PILLAR 6: COLLABORATION PLATFORM WORKLOAD (SaaS) – PUBLIC CLOUD

The process to procure and deploy a collaboration platform for 16,000 government employees is currently underway. More specifically, this involves a detailed plan for procuring and deploying Microsoft Office 365 (combination of SaaS Office 365 E1 and E3) and security modules from Fortimail. In Q2 2021 we expect to conclude the user profiling and proceed with the relevant tendering procedures.

The procurement of this collaboration platform will complement the G-Cloud with SaaS from an EU-based Global Provider.

Target population

The project has national coverage.

Timeline

Q4 2022 - G-Cloud is operational providing a number of cloud services

Q4 2025 - Set-up of two fully operational data centres

State Aid

Not applicable.

• **Reform 3: Police Procedures Digitalisation Digipol (Cyprus Police)**

The DigiPOL project aims at the development and implementation of a number of digital technologies that are tailored to the needs of Cyprus Police with a view to digitally transform and prepare its services for the Next Generation of Law Enforcement. As an organisation whose work has a direct impact on the lives of citizens, the digitalisation of the Police is critical. This is extremely important during crises situations and pandemics, like COVID-19, during which law enforcement agencies are responsible for working with government and public health officials to contain the spread of the virus, serve the local community and maintain public order.

Challenges

Currently, the Cyprus Police Force has limited digital capacity and is heavily reliant on paper-based systems to manage police matters and to provide services for citizens. In accordance to the 2020 National Reform Program of Cyprus to enhance the work of Law Enforcement, the Cyprus Police has set as a high priority the elimination of the use of paper procedures and physical presence of the citizens by moving away from the paper-work bureaucracy to new digitalised procedures. Law enforcement officers are confronted with more and more data on a daily basis and in addition to acquiring new skills and competencies, police officers require access to ICT and associated training in the use of the new inter-operable IT systems.

The COVID-19 pandemic has also exposed some key obstacles related to ICT, impacting on local law enforcement and citizens services, resource management, the enforcement of public health restrictions, and changes to crime and service patterns. The pandemic and the related 'lock-down' measures, demonstrated the urgent need to develop adequate digital solutions for public services and the justice system as they have brought the delivery of many public services to a standstill including police services.

Objectives

The corona virus pandemic has highlighted the need to do business through online platforms and electronic signatures for the efficiency and contactless processing. The vision of the Cyprus Police is to eliminate the use of paper procedures and physical presence of the citizens by moving away from the paper-work bureaucracy to new digitalised paperless procedures. The aim is to improve citizen life, safety and security. Achievement of remote communication between citizens and the government departments is crucial to meet the challenges. In that respect, the Cyprus Police has to deal with face to face contact with citizens on a daily basis for the signing of official declarations, interrogations, issue of certificates and many more workings. This causes delays in the processing of the business as well as a frustration for the physical presence waiting in lines and the disappointment in the manner of service. The Police officers at the stations have a multidimensional scope of work which makes it very hard for them to attend to procedural issues in a timely manner, so records are not up to date and are difficult to find. A new platform of demands for police procedures and services for citizens has to be created to achieve remote communications.

The outcome will be contactless procedures of Police and citizens as a first step towards a fully digital business climate. The objective is also to save energy, consider the environment through a friendly solution for creating new jobs in this remote structure.

The proposed reform contributes to digital transition through the envisioned transformation of the Cyprus Police going from paper-work processes to online services for both its internal needs but most importantly for the law enforcement services offered to citizens. By transitioning to online services, the Cyprus Police will become more resilient and agile to factors such as COVID-19.

Implementation

Cyprus Police will implement this project with the assistance of the researchers at KOIOS Centre of Excellence from the University of Cyprus. Cyprus Police will outsource part of the project procedures using public procurement processes.

The KOIOS Centre of Excellence is the technical manager responsible for the construction of the technical outline of the project like the specifications, the main goals and achievements and to break it down to work packages. Moreover, KOIOS will be composing the document of specifications for procuring the digital platform. Existing and newly developed prototypes will be used to build a more bespoke digital structure.

Impediments

A possible risk could be potential delays that may arise as a result of lengthy public procurements procedures. However, the implementation team, POLICE AND KOIOS, under the coordination of the Finance Directorate, EU Funded Projects Unit, has several years of experience managing such risks during the implementation of large-scale projects.

Target population

The general population, citizens and companies will be benefiting from this reform. Moreover, Police officers will be able to carry out their duties more efficiently.

Timeline

Q1 2023 - Contract Signature and initiation of project development

Q2 2023 - The new platform of DigiPOL is operational on a pilot basis and available to all police users

Q2 2024 - Implementation of training programmes (end-user engagement)

Q3 2025 - At least 500 citizens have used one or more of the available services of the Digipol platform

State Aid

Not applicable.

- **Reform 4: Setting up the Beneficial Ownership Registry in accordance with Directive (EU) 2015/849 (Registrar of Companies)**

Challenges

The 5th EU Anti-money Laundering Directive (AMLD) requires Member States to establish, at domestic level, central registers containing beneficial ownership information for companies and legal entities as well as for trusts and similar arrangements. The timeline for the implementation of this Register was the 10th January 2020. Cyprus transposed the above directive into national law on 23rd February 2021 (N13(I)/2021), on the basis of which the Department of Registrar of Companies and Official Receiver (DRCOR) is the competent authority to establish the aforementioned register for companies and other legal entities.

The DRCOR, is currently in the process of collecting the relevant information via an interim solution that has been developed to this end. To achieve complete harmonisation with the above EU obligation, the DRCOR needs to develop the system that will support the functionality of the national UBOs Register as well as its interconnection with other Member States Registers.

Objectives

The purpose of the register of beneficial owners is the mandatory registration of the data of beneficial owners of all corporate and other legal entities. The register of beneficial owners and, consequently, the interconnection of the national UBOs registers improves corporate trust and transparency in Cyprus and the EU by making it clear who ultimately owns and controls companies and other legal entities and therefore by tracing criminals who might use a corporate structure to hide their identity.

Therefore, there is an urgent need to create a new, autonomous to the national business register, system to support and maintain the national UBOs Register and achieve interconnection with the BO Registers of the other Member States, for which the obligation to comply is by October 2021. At the moment, there is no existing system for the UBOs Register. The interim solution that has been developed is an online platform that has been created to facilitate the collection of data from companies and other legal entities and as such it does not possess any other capabilities or functionalities; the interim solution serves the purpose of a repository where the information regarding corporate UBOs is stored. The [proposed project concerns the development of a solution](#) which will possess all necessary functionalities to support the maintenance of the Register and management of relevant information (e.g. sending out of notifications for updating, enforcement of late filing fees, search facilities with prescribed levels of access etc.).

Implementation

Implementing authority is the Department of Information Technology Services of the Deputy Ministry of Research, Innovation and Digital Policy (DMRID), in cooperation with the Ministry of Energy, Commerce and Industry on behalf of DRCOR.

The necessary legislative changes for the implementation of the Register on a national level have been introduced and the Registrar of Companies has already issued the 1st Directive regulating the maintenance and updating of the Register by the entities themselves.

The Project Team has compiled the functional requirements of the system on the basis of the AML Directives and the Department of Information Technology Services (DITS) is in the process

of finalising the tender documents for the procurement of the contest for the development of the BO Register.

As mentioned in section “Challenge” above, the relevant information is already being collected (16/3/2021 launch date) via the interim solution that has been defined and developed on the basis of the specifications determined by the Project Team. The relevant data will be migrated to the DRCOR’s comprehensive IT system which will also be used for the Implementation of the Beneficial Ownership Registers Interconnection System (BORIS).

Target population

Competent authorities for example Tax Department, Police etc., Supervisory authorities for example the Central Bank of Cyprus, the Securities and Exchange Commission, Obligated entities for example credit institution, financial institution etc., any member of the general public.

Timeline

Q4 2023 - Contract Signature and submission of Project Initiation Document

Q4 2023 - Go live - finish project and accept system in order to achieve Compliance with the EU Directive

Investments

- **Investment 1: Digitalisation in various Central Government Ministries – Services**
 - *Development of a new integrated information system for the Road Transport Department.*
 - *Digital Transformation of the Deputy Ministry of Shipping.*
 - *Digitalisation in the Ministry of Foreign Affairs - Skytale.*
 - *Development of an Information System for the Monitoring of the Cyprus Recovery and Resilience Plan in the Directorate General for European Programmes, Coordination and Development and RRP Communication Strategy*
 - *Digitalisation of Architectural Heritage- Department of Town Planning and Housing of the Ministry of Interior*

One of the main Investments in this Component is the promotion of digitalisation in various Ministries and other Central Government Services. E-Government can improve efficiency in the delivery of government services, simplify compliance with government regulations, strengthen citizen participation and trust in government, and yield cost savings for citizens, businesses and the government itself.

This investment promotes digitalisation in the following Ministries/Deputy Ministries/Services of the Government: Deputy Ministry of Shipping, Ministry of Foreign Affairs, Road Transport Department of the Ministry of Transport, Communication and Works, Department of Town Planning and Housing of the Ministry of Interior and Directorate General for European Programmes, Coordination and Development (specifically for the development of an Information System for the Monitoring of the Cyprus Recovery and Resilience Plan and the development and implementation of Cyprus’ RRF Communication Strategy).

The projects that will be promoted through this investment are described here-below:

- ***Development of a new integrated information system for the Road Transport Department***

Challenges

The current information system of the Road Transport Department has been evaluated to be near the end of its lifecycle. Enhancements made throughout the years have made the system more complex and harder to maintain. Also, other small applications (micro services) to satisfy the department's needs were separately developed and are used by the officers of the department and citizens. After a cost-benefit analysis it has been decided to replace the current system with a new integrated information system that will incorporate new architecture, better design and the latest technologies (from hardware to programming languages, to new services that include eID, eSignature, single sign on, etc.). So, the System needs "reconstruction" from the beginning.

Objectives

Through this project the Road Transport Department will redesign all its services to be provided electronically, thus minimising bureaucracy, improving customer service and raising productivity, while better utilising human resources. The said measure will result in lower government expenses and lower fees. The complete digitalisation of RTD's services, while taking advantage of B2G and G2G interfaces, will streamline current processes and provide flexibility for implementing new functionality and services. This project, because of its necessity to interconnect with various other departments, will be a catalyst of digital change. This project is a unique opportunity for enhancing citizen services and reducing the operating cost of public sector and social prosperity in order to achieve a step change in Cyprus' digital transformation journey. The vision of the Road Transport Department (RTD) through this project is to become a fully functioning electronic Road Transport Department (eRTD).

Implementation

Implementing authority is the Department of Information Technology Services (DITS) of the Deputy Ministry of Research, Innovation and Digital Policy (DMRID), on behalf of the Road Transport Department of the Ministry of Transport, Communications and Works.

Target population

The project has national coverage.

State Aid

Not applicable.

➤ ***Digital Transformation of the Deputy Ministry of Shipping***

Challenges

The streamlining of internal processes and the offer of digital one-stop-shop services by the Shipping Deputy Ministry in its capacity as Flag, Port and Coastal State Control.

Objectives

Optimise and digitally transform the operations and processes of the Deputy Ministry in order to enhance the efficiency and effectiveness of the Deputy Ministry.

Implementation

The project is divided into two phases:

Phase A:

Current state assessment:

Define the current state processes and activities to complete operations along with the supporting technology architecture for each process, current pain points and needs and the gaps to offer a digitally transformed and optimised experience.

Future state design:

Design the future state of the aforementioned processes and activities aiming to optimise and digitally transform the operations of the Deputy Ministry in order to enhance the efficiency and effectiveness of the Deputy Ministry's operations and offer a better experience to the users of its services. The required technology blueprint as well as the strategic roadmap to implement the designed future state should also be completed at this stage.

Phase B:

Implementation of the strategic roadmap and actions (e.g. technology implementation) to reach the designed future state.

Expected outcomes

- a. The simplification and streamlining of the internal processes of the Deputy Ministry Shipping across the complete spectrum of its operations, within the scope of Digital Transformation and in alignment with the Government's goal of digitally transforming the public sector and the National Digital Strategy. This is expected to lead to a
 - i. better internal co-ordination and efficient and effective flow of information
 - ii. retention and expansion of knowledge capacity
 - iii. ability to react faster to changes in the external environment and subsequently provide innovative service to the stakeholders
 - iv. capacity to introduce tele-working
 - v. ability to put available office space to better use
- b. The re-engineering and redesign of the interfaces with stakeholders in order to
 - i. enhance and promote the 24/7 service regime
 - ii. introduce, in effect, a one-stop-shop service portal.
 - iii. Effectively contribute to 'blue growth'

Target population

Users of the services provided by the Deputy Ministry of Shipping.

➤ ***Digitalisation in the Ministry of Foreign Affairs - SKYTALE***

Currently, there is the need to upgrade the security systems of the Ministry of Foreign Affairs in order to be able to promote and exchange classified information via secured tunnels. This can be achieved only in a fully digitised and secured environment, supported by the necessary network and crypto equipment and other necessary infrastructure as well as with the support of adequately trained personnel.

Objectives

The investment targets the Digital transformation of the Cyprus Ministry of Foreign Affairs and its Diplomatic missions overseas. Digital transformation aims at improving public value delivered by Ministry of Foreign Affairs, raising both efficiency, security and effectiveness of public

administration supporting at the same time the green and digital transition, within a digitally upgraded environment.

The data era which is supported by the data economy has high demands of security and trust in the management of the data stored and transmitted towards a green and digital transition. To do so, it is essential to digitally upgrade the infrastructure and tools of the Ministry of Foreign Affairs and Diplomatic Missions to achieve security and efficiency. New ways in addition to existing methods to protect data both classified and unclassified -but sensitive- need to be developed and put in place. Moreover, the investment will contribute to close the skills gap, by training and thus enabling efficient and use of the enforced systems and environments.

The overall objective is to develop and deploy advanced technologies and data processing capacities to boost Cyprus technological sovereignty, competitiveness and delivery of trustworthy, secure and sustainable components and real time services to public servants and finally service the citizen.

The investment is in line with the country specific recommendations (CSRs) related to digital transition for Cyprus for the years 2019 and 2020 and is focusing on digital security and infrastructures / digitalisation of processes. All proposed investments either implicitly or explicitly aim to increase investments in digital components and capabilities. The investment is composed of four divisions:

Division A – Crypto: The aim is to protect classified information from being stolen or manipulated from attackers or non-need to know persons by upgrading existing systems enabling controls and cryptographic tools

- Upgrade equipment and controls for secure and immediate transmission of classified data and voice and achieve authentication, confidentiality and integrity of the documents
- Upgrade monitor controls and threat intelligence to protect government networks from cyber-attacks and apply protective measures and procedures
- Accelerate the deployment process in order to safeguard the implementation of the projects

Division B - Cyber Defence: The aim is to upgrade the secure environment for the MFA staff to handle their sensitive information by restricting and monitoring access to uncontrolled networks and protect from cyber threats.

- Ensure all controls are in place to protect government equipment and networks and provide a secure digital environment for the MFA staff
- Secure means of communication for unclassified but sensitive data
- Build a knowledge database using the services of a professional consultant

Division C – Infrastructure: The aim is to upgrade the existing infrastructure in order to achieve efficiency, control and administration while helping the public servants perform their work faster in a secure environment

- Provide efficient flow of network information from/to the Diplomatic Missions and achieve faster connectivity to services
- Gather all mobile devices information under one platform and manage its usage and security
- Provide efficient technical support to MFA and Diplomatic Missions' users
- Provide cost free calls between the MFA and Diplomatic Missions

Division D - Project Management and Training: The aim is to strengthen the project team to ensure the successful implementation of the projects. Additionally, to train all IT administrators and develop their skills further to enable them to successfully manage the platforms. Extent training to the MFA personnel to raise awareness and improve culture.

- Support the organisation and implementation of the projects
- Provide additional knowledge and security awareness to IT administrators and users

Challenges

Cyprus' digital transition depends on its ability to develop the most advanced, energy efficient and secure methods to upgrade the access methods to its classified and sensitive information. Currently, Cyprus lags behind other EU members and the private sector.

Business continuity

- Ensure business continuity while deploying the projects without disruptions which would affect the Ministry's everyday work. Such disruptions, when long, could affect the availability and accessibility to valuable information.
- Deployment of projects within time schedule.
- Acquiring, transporting and Implementing various new systems and infrastructure components simultaneously in 52 Diplomatic Mission of Cyprus. Especially challenging considering the covid-19 travelling restrictions.
- Professional consultancy services are necessary to ensure that all components and procedures of the project are put in place correctly and all the security and network aspects are addressed.

Adequate security

- The pandemic has increased the need to upgrade the security systems to transfer more information via an encrypted channel
- Security experts argue that there are never enough security measures to protect digital information. The goal is to apply such measures that access to information and sending it to hostile centres will be recognised in time and are nearly impossible to be executed.
- Public servants exchange emails with public and private sector every day. Upgrading email encryption will restrict an intruder to read the content and manipulate the accounts

Management and User training and awareness

- Users of any system are one of the most important stakeholders of a project. Proper training schemes need to be developed to allow the users to use the system tools correctly and enjoy its expected benefits.
- Develop user awareness to be able to recognise cyber dangers and report or respond in a manner that could contribute to an attack handling.
- Moreover, creating a culture within government employees that technology can be the faster and most widespread form of communication but at the same time the most vulnerable to cyber-attacks by individuals and governments.
- Management commitment which includes digital strategy and vision is essential to overcome employee pushback.

Adequate IT staff to manage the services

- The IT staff need to be always available to manage the systems since as the systems are handling security issues, the absence of the administrators is a threat itself.
- The administrators need to be continuously reinforced to allow more people to have access to the administration of the systems
- Continuous training is essential as new threats develop each day
- Organisational structure to lead digitisation initiatives.

Expected outcomes

- Capability to increase the volume of classified data and voice securely exchanged
- Accelerate the deployment of the projects
- Ability to monitor network equipment and detect and respond to cyber-attacks and intrusions
- Accurate implementation of projects assists in the general mechanisms and procedures aimed to protect the networks
- Ability to exchange non-classified information securely via email and increase reliability and functionality
- Protect the MFA network from intrusions and provide access to resources in a secure way
- Achieve efficient flow of information between the networks of the Diplomatic Missions
- Control and effective management of all mobile devices
- Provide immediate technical support and achieve business continuity
- Enable efficient voice communication between MFA and Diplomatic Missions and reduce cost from international calls
- Support the organisation and implementation of the projects and strengthen the project team
- Provide knowledge and security awareness to IT administrators and users

Target population

The investment targets the digital transition of the public sector by upgrading controls that are needed to protect classified information which would potentially harm the interests of the country. The investment will make the CY government more efficient by enabling it to handle fast and safely transmit sensitive information; which in turn will trickle down to benefitting all citizens.

State Aid

Not applicable.

- ***Development of an Information System for the Monitoring of the Cyprus Recovery and Resilience Plan in the Directorate General for European Programmes, Coordination and Development and RRP Communication Strategy***

This investment has a twofold objective, both related with the smooth and successful implementation of the Cyprus Recovery and Resilience Plan. The first one is related with the development of the Information System for the Monitoring of the Cyprus Recovery and Resilience

Plan and the second one with the development and implementation of Cyprus' RRP Communication Strategy.

- (a) Development of an Information System for the Monitoring of the Cyprus Recovery and Resilience Plan

Challenges

According to the Regulation for the establishment of the Recovery and Resilience Facility, Member States will need to report on a quarterly basis on the progress made in the achievement of their Recovery and Resilience Plans, including operational arrangements (e.g. arrangements and timetable for implementation of the recovery and resilience plan, the relevant indicators relating to the fulfilment of the envisaged milestones and targets and the arrangements for providing access by the Commission to the underlying relevant data). The achievement of the required targets, milestones and time-frames, and thus the disbursement of the relevant funds, requires the development of an Information System facilitating the Plan implementation and monitoring, which will include a robust mechanism for monitoring the proposed reforms/investments with the relevant milestones, through the utilisation of appropriate project management tools. Furthermore, throughout the implementation of the RRP possible emerging risk factors that could hinder implementation should be identified, assessed and managed and alternative corrective actions should be developed.

The underlying requirement of the facility is that the Member State will protect the financial interests of the Union. To that respect, the governance, implementation and monitoring mechanism for the RRP for Cyprus, will be based on the principle of sound financial management and will ensure a robust monitoring & communication mechanism and the establishment of clear governance, including adequate roles and responsibilities to drive accountability. The key stakeholders in the management and control system for the implementation of the plan will be facilitated by a specially designed and developed information system.

This is necessary as Cyprus, being the beneficiary of funds under this Facility, will need to ensure that an efficient and coherent allocation of funds from the Union budget is in place, respecting the principle of sound financial management, and providing all the necessary assurances that the funds are managed in accordance with all applicable Union and national law, whilst ensuring that material irregularities, fraud, corruption and conflicts of interest are prevented, detected and corrected.

In order to avoid overregulation and administrative burden, the management and control system will be based, to a significant extent, on the underlying principles and responsible bodies of the management and control system that is already in place for managing, controlling and implementing the European Structural and Investment Funds, as well as on the key responsible bodies and procedures that are currently in place for the implementation, control and monitoring of the National Budget. This will ensure the requirement for adequate segregation of functions, clear definition of actors, structures, roles and responsibilities are met. Control bodies already in place have the legal empowerment, administrative capacity, skills and expertise to manage the additional funds allocated through the facility.

Ex ante controls in place will ensure the reliability and soundness of data. Data needs to be collected in relation to progress made towards the achievement of specific outputs, results and impact indicators. The data collected should be collected in an efficient, effective and timely manner, avoiding overregulation and administrative burden. For this reason, an Information System that will store and allow the management of the data collected, should be developed. This will allow for the recording of progress towards the completion of milestones and targets set to be achieved, which is essential also for payment claims. The responsibility of the Member State is to check the correct use of financing and recover union funds unduly spent. To that respect,

every payment application submitted to the European Commission will be accompanied by a Management Declaration and a Summary of Audits and Controls undertaken, summarising the scope of the controls undertaken, the weaknesses identified, and the corrective actions undertaken.

Different kinds of data should be collected and stored in this database. The minimum amount of data to be collected involves the data requested for the purpose of audit and control of the use of funds, which includes, among other, the name of the final recipient of funds; the name of the contractor and sub-contractor, the first name(s), last name(s) and date of birth of beneficial owner(s) of the recipient of funds or contractor. The data should also include a list of the measures undertaken for the implementation of reforms and investment projects under the recovery and resilience plan, the total amount of public funding etc. An adequate audit trail should be in place to ensure the reliability of the transactions on which payment applications submitted to the European Commission are based.

In order to avoid overregulation and administrative burden, the Information System to be developed is expected to be linked to the existing Information System that is currently in use for the European Structural and Investment Funds (ESIF). In this way, complementarity, synergy and coherence among different instruments at Union level is expected to be promoted, as the two Information Systems are expected to share information included in each database easily and effectively, avoiding therefore duplication of efforts as well as duplication of funding. Also, the Information System to be developed is expected to be able to potentially utilise data structures and functions that have already been developed for the Information System of ESIF for the period 2014-2020, such as the management of programs (program tree, indicators, financial tables, etc.), the management of projects (contracts, implementation planning, indicators), the management of public contracts, the management of state aid schemes and projects (calls of proposals, evaluation and approval of project proposals), requests for payment of grant submitted by final recipients, payment applications submitted to the European Commission, etc. Furthermore, in the context of the interoperability of the Information System for ESIF with the new ERP which is currently being developed by the Treasury of the Republic, data regarding public expenditure for the execution of projects that will be co-financed either through cohesion policy programs or through the RRF (payments of Central Government bodies) will be drawn directly from the ledger (budget votes) of Ministries and Departments of the central government.

Objective

Development of an Information System for the Monitoring of the Cyprus Recovery and Resilience Plan that will enable to:

- Collect, on a regular basis, in a reliable and transparent way, data regarding the progress made on the reforms and investments included in the Plan, in order to be able to document the progress achieved in relation to milestones and objectives.
- Implement / undertake measures and procedures for the prevention, detection, correction and monitoring of cases of corruption, fraud, conflict of interest and serious irregularity, respecting the principle of sound financial management.
- Implement/ undertake procedures for checking legality and compatibility with all horizontal relevant European regulations and policies (e.g. public procurement, state aid, environment, equal opportunities etc.)
- Implement/ undertake ex-ante control procedures to avoid double funding
- Implement/ undertake data control procedures to prevent Money Laundering.

Implementation

The responsible Authority for this investment will be the Directorate General for European Programmes, Coordination and Development (DG EPCD).

Target population

DG EPCD, all Implementing Authorities, Monitoring and Control Bodies and stakeholders of the reforms/investments included in the Resilience and Recovery Plan of Cyprus.

State Aid

Not applicable.

(b) Cyprus RRP Communication Strategy

Challenges

The aim of this investment is to develop and clearly outline the national communication strategy regarding the Cyprus RRP (the “Plan”) to ensure the public awareness of the European Union (EU) funding regarding Recovery and Resilience Facility (RRF). This is in alignment with the communication requirements outlined under the RRP Regulation (EU) 2021/241, taking also into account the relevant guidelines provided under Chapter III and Annex VIII of the Proposal for the Common Provisions Regulation COM (2018) 375 final 2018/0196 (COD).

The investment aims to specify the concrete actions and responsibilities. The communication strategy will ensure transparency regarding the implementation process of the RRP as well as the funding mechanisms highlighting and promoting the important role of the RRP in Cyprus’ economic recovery and growth, green transition and digital transformation.

Objectives

Clear, specific, and measurable objectives are key to the success of any communication strategy and plan. The main objectives of the communication activities of the RRP are as follows:

- Ensure transparency regarding the implementation process of the RRP as well as the funding mechanisms highlighting and promoting the role of the RRF;
- Raise public awareness and ensure maximum visibility of the Plan and its results within the identified target groups during and after the implementation period;
- Identify, employ and implement a wide and differentiated set of communication tools and events to maximise the results and impact of the plan and the reforms and investments included within;
- Identify the communication KPIs useful to measure the effectiveness and efficiency of the activities conducted as part of the monitoring and evaluation task;
- Illustrate how the plan will cooperate with other EC-funded projects or related initiatives; and
- Define how the communication activities will be administrated.

In order to maximise the impact of communication efforts:

- Information used must be accurate;
- Activities should be coordinated closely with the Commission;
- The right audiences (stakeholder groups) should be targeted;

- Messages should interest the target audiences; and
- Activities should be appropriate in terms of resources spent, timing and expected impact.

Implementation

The communication strategy will be implemented in parallel with the implementation of the RRP. At times when important milestones have been achieved, it will display its results when these are visible and measurable. Thus, the communication activities presented will be planned in three phases, each of which addresses a separate audience, has its own objective and timing as follows:

- Phase A (2021 - 2022): Phase A includes the further enhancement of the communication strategy through the identification and design of the key communication messages, activities and channels based on the final list of reforms and investments included in the RRP;
- Phase B (2021 - 2026): Phase B consists of (1) the annual planning for the communication activities to be implemented in the year, (2) the implementation of the communication activities / campaigns targeting the general public and beneficiaries as planned and (3) the provision of information on the implementation and monitoring procedures of the RRP to intermediaries and enhance their capacity regarding their obligations around the Plan;
- Phase C (2022 - 2028): Phase C includes the implementation of communication activities which will highlight the results and impact of the RRP with an emphasis on the promotion of EU's funding's role. Given that Phase C extends beyond the eligibility period of the Plan, some of the actions envisaged during this timeline will be covered by national funds.

The DG EPCD in its role as the Coordinator of the RRP has the overall responsibility for the implementation of the communication strategy and plan, coordinating and supervising all communication activities. In this context, the DG EPCD will:

- Set up the most appropriate mechanisms and tools for maximum visibility and impact in collaboration with an appropriate advertising agency;
- Ensure that the communication material and activities are designed in accordance with the communication strategy and are implemented in a way that achieves the widest possible media coverage using various forms and methods of communication at the appropriate level;
- Coordinate, monitor and evaluate the implementation of the communication activities;
- Be responsible for the creation and maintenance of the RRP website as well as, review of the communication material to ensure cohesion;
- Guide all involved bodies about the implementation of the communication strategy and ensure that all of them contribute to communicating specific reforms and investments within the target groups within their reach; and
- Inform the EC in a timely manner regarding the communication activities (implemented and upcoming ones) as well as their estimated results.

Implementation

The DG EPCD will appoint an Information and Communication Officer (ICO), who will be responsible for implementing the communication plan and will act as the contact point between the EC and the National Authorities. The ICO will be coordinating the communication measures and the development of the communication material including the maintenance of the dedicated website.

All bodies engaged in the monitoring and implementation of the Plan should follow the communication guidelines to be set out by the DG EPCD.

While the key to a successful communication strategy is robust planning, it should be explicitly noted that communication is a dynamic process and therefore the communication plan will be updated as much as needed to address the RRP needs as these evolve and respond to any unexpected and currently unforeseen event, throughout its implementation period.

A comprehensive set of interrelated communication activities will be designed and implemented through appropriate channels of communication for the timely and effective reach out to the identified and selected target audiences.

Online communication tools will be one of the tools to be used in this procedure which will also include a single web space to be developed in order to provide information on the plan and its completed and upcoming activities. It will aim at the immediate and continuous information of the public, beneficiaries, as well as the bodies involved in the management, implementation, monitoring and control of the Plan. The RRP website will be the anchor for all communication activities related to the RRP and will serve as a central point of entry for all public material, including the Plan's basic information and results generated.

Further information on the implementation of the communication strategy is provided under Part 3 of the RRP.

Target population

Identifying all the target audience groups is one of the most important aspects of a communication strategy.

The RRP will impact the lives of all Cyprus citizens therefore, its communication and promotion will need to reach a wide and diverse audience. For this reason, to multiply the impact on the competent authorities involved and enlarge the audience reached by this effort, DG EPCD will develop links and collaborate with several organisations to support the promotion of RRP news and upcoming events.

RRP target audiences can be clustered in two main categories:

- Beneficiaries could be any public or private body (natural persons or legal entities) that has a direct and/or indirect benefit from the RRP and thus could potentially be the final recipient of the EU funding (i.e. citizens via a support scheme) in the context of a reform or an investment and they are not engaged in the monitoring and implementation of the Plan. The entire population of Cyprus is in principle a target group, which can be divided into specific sub-groups based on their respective direct and/or indirect benefits from, and thus interest on, the RRP. Examples of sub-groups of the RRP beneficiaries include citizens - general public, decision makers, NGOs, enterprises, business associations, local authorities, educational/research institutions, etc.
- On the other hand, the media (television, radio, print and electronic media) act as propagators of the messages and play an important role in the continuous, accurate and timely information to the beneficiaries. Thus, this communication activity will be promoted to inform the beneficiaries about the Plan, the achievement of important milestones and overall impact.

Further information on the target audiences is provided in Part 3 of the RRP.

State Aid

Not applicable.

➤ **Digitalisation of architectural heritage- Department of Town Planning and Housing of the Ministry of Interior**

Challenges

Architectural heritage is recognised and protected in the Republic of Cyprus under national legislation as well as under European Conventions signed by the Republic. Over 7000 buildings have been listed and further 5000 have been evaluated to be listed.

The recording and digitalisation (concise and/ or detailed) of listed and traditional/ historic/ modern movement buildings is important for the protection, preservation and promotion of architectural heritage. Moreover, as individual buildings form the built environment of settlements, the analysis of trends in their use, condition status/ vulnerability, state of conservation, climate change impact and public and private investments made, are important for the drafting and evaluation of sectoral and spatial policies. In their turn, appropriate policies contribute to achieving physical, economic and social resilience in towns and rural settlements. In addition, landscape is inextricably linked with the settlements and its protection, enhancement and management cannot be considered separately, however even though landscape categorisation was carried out, there is no evaluation of its value.

Modern technology offers tools to accommodate this analysis. The Department of Town Planning and Housing, which is the responsible body for the management of listed buildings has developed an information technology system (“Hippodamos”) that partly covers this need. A number of listed buildings have been already digitised. However, a great number of buildings have not yet been digitised, while the system lacks the ability for spatial analysis of existing (hardcopy) data.

Another challenge is the lack of a database for typologies and for authentic architectural/ construction details and their respective conservation/ rehabilitation proposals. Such a spatially defined database would serve as prototypes for architects and facilitate their work while at the same time promote the quality of results in the rehabilitation process.

Objectives

The objective of this investment is to digitise data related to architectural heritage in different levels:

- i. Digitise buildings that are either already listed but not yet digitised as well as to record and digitise buildings of architectural value that have not been classified yet as listed.
- ii. Spatial analysis of rural settlements and designation of Special Interest Areas
- iii. Develop a landscape evaluation digital map
- iv. Prepare a database on typologies and architectural/ construction details
- v. Extend the capabilities of the existing Digital Platform to allow data analysis
- vi. Data entry on the Platform including condition status/ vulnerability

The actions necessary for this Investment are the following:

- Digitalisation of listed and traditional/historic/modern movement buildings and settlement spatial analysis
 - a. Onsite inspection and photographing of 4000 buildings and entry on the Information System
 - b. Spatial analysis and definition of the Special Interest Areas for historic settlements (analysis and map production)

c. Landscape evaluation interactive map (analysis and map production)

- Database preparation for typologies and architectural/ construction details

The database will consist of detailed drawings of both outstanding and typical examples of building typologies from different areas of the island, as well as of typical construction details and their local variations (authentic and prototypes). These will be available online for educational purposes.

- Digital Platform for enabling data analysis

The Digital Platform will enable the process of data analysis on a GIS system. The Platform will be a component (module) of the information technology system (“Hippodamos”) of the Department of Town Planning and Housing. It will also encompass an open source interactive digital platform to allow the recording of the condition of the buildings. The Platform will enable policy makers and planners to analyse existing trends and evaluate and/ or propose sector and spatial policies.

Implementation

Coordinator: Ministry of Interior and the Department of Town Planning and Housing, Cyprus Technical Chamber

For the implementation of the reform the following administrations/ bodies will also be involved: Law Office of the Republic of Cyprus, Council of Ministers and the House of Representatives. The capacity for the implementation lies within the competencies of each body.

Stakeholder involvement

Besides the administrations/ bodies involved in the implementation of the investment, stated above, other stakeholders are involved as per their interest. A preliminary stakeholder analysis identifies the following interested bodies: Union of Cyprus Communities, Union of Cyprus Municipalities, Union of Architects, NGOs in the field of cultural heritage etc.

Target population

Owners of listed buildings, local authorities, architects and civil engineers, spatial and urban planners, constructors, managing authorities.

State Aid

Not applicable.

Timeline

Q1 2022 - Signature of contracts with providers selected through public procurement procedures to digitalise/digitally upgrade at least 4 of the Government Ministries/Departments included under this investment

Q4 2023 - Development completed, and systems put in operation for 4 Government Ministries/Departments included under this investment

Q4 2025 - Development completed, and systems put in operation for all 5 Government Ministries/Departments included under this investment, including hardware equipment installation and setup.

- **Investment 2: Digital transformation of Cyprus Ports Authority (CPA-MTCW)**

Challenges

- The CPA is planning several projects and investments in new systems. Additionally, as a means to cope with the spreading of the corona virus, a number of staff have been working from home. In order to work effectively, they are connected to the CPA's server remotely via VPN, which increases the possibilities of a security breach to CPA's data. Furthermore, new guidelines published by the Digital Security Authority (DSA) in Cyprus during 2020, require an upgrade of CPA's security systems, in order to ensure compliance with the guidelines.
- For the CPA to be able to adequately manage the new volume of traffic and legal requirements in relation to Information Security, the existing network, data security and server systems will need to be fully upgraded. Additionally, new management systems for HR operations and the archiving system will be installed to allow efficiency in operations and cope with members of staff working from home.
- Additionally, on 20 October 2010, the European Parliament and the Council adopted in 2010 the Directive 2010/65/EU on reporting formalities for ships arriving in and/or departing from ports of the Member States (Reporting Formalities Directive - RFD). As per the requirements of the Directive, CPA designed and developed the Port Community System (PCS) as per the requirements of the Directive. In 2019, the Single Window Regulation was issued, which replaces the RFD and further defines the requirements for National Single Windows. As such, CPA will need to proceed with the necessary updates on PCS in order to ensure compliance, as well as exploit opportunities to increase the efficiency of the maritime transport sector and to reduce administrative burdens.
- Lastly, as it stands, a Vessel Traffic Station (VTS) is fully operational and covers traffic movement in Limassol Port, whilst Larnaca and Vasiliko Ports' traffic is not monitored by VTS. The International regulation IMO Resolution A.857 (20) - 'Guidelines for Vessel Traffic Services', define the requirements for the installation and usage of VTS, as well as its importance on ensuring the successful flow of ship traffic to and from ports, the protection of human life and of the environment.

Objectives

The rise of digital technology, the use of Data Analytics, Internet of Things and mobile use has transformed the way business operate. In addition, the recent developments with the global pandemic and the need of companies to adapt to concepts of working from home, mobile workforce and contactless operations, have given rise to the need for Cyprus Ports Authority to proceed with a holistic digital transformation strategy.

The objective of this investment is to ensure that the operations of the Cyprus Ports Authorities are performed efficiently and effectively and communications between the vessels and the relevant competent authorities are executed seamlessly and digitally. At the same time, improvements in monitoring vessel traffic in the whole of Cyprus waters, will ensure the safe navigation of vessels, reduce the risk of environmental damages due to spills from accidents and reduce vessel emissions by plotting more efficient routes.

The requirement for digital transformation is twofold: In order to enhance operational efficiency and to ensure the Organisation's Business Continuity, both regarding operational disruption from the pandemic as well as from cyber-attacks. The Project will include several upgrades on the CPA's network infrastructure, hardware and software and server capacity. At the same time, new Management Systems will be incorporated in order to automate procedures. Lastly, we will overhaul the existing Port Community System to be in line with the requirement of the Single Window Regulation and install Vessel Traffic Control Stations at the Ports of Larnaca and

Vassiliko. This will be achieved by:

1. Upgrade of the existing Information Technology (IT)/ Information Security (IS) infrastructure, hardware, and software of CPA
2. Update of the Port Community System (PCS)
3. Installation of Vessel Traffic Stations (VTS) in the Ports of Larnaca and Vassiliko

Action 1: Upgrade the existing Information Technology (IT)/ Information Security (IS) infrastructure, hardware, and software of CPA

- The main objective of the Project is that the operations and functions of the Port Community System are in line with the requirements of the Single Window Directive and by extension, that the Cyprus Republic follows the Regulation.
- Encourage electronic communication between the relevant governmental departments, ships and ship agents, as well as port operators.
- Avoid face-to-face interaction and time-consuming procedures that obstruct effective services on data transfer from and to ships.
- Improve the efficiency, attractiveness and environmental sustainability of the maritime transport and contribute to the integration of the sector to the digital multimodal logistic chain.
- Lastly, the project may result in generating job creation, depending on operational and maintenance needs.

Action 2: Upgrade of the Port Community System (PCS)

- The main objective of the Project is that the operations and functions of the Port Community System are in line with the requirements of the Single Window Directive and by extension, that the Cyprus Republic follows the Regulation.
- Encourage electronic communication between the relevant governmental departments, ships and ship agents, as well as port operators.
- Avoid face-to-face interaction and time-consuming procedures that obstruct effective services on data transfer from and to ships.
- Improve the efficiency, attractiveness and environmental sustainability of the maritime transport and contribute to the integration of the sector to the digital multimodal logistic chain.
- Lastly, the project may result in generating job creation, depending on operational and maintenance needs.

Action 3: Installation of Vessel Traffic Station (VTS) in Larnaca and Vasiliko ports

Implementation

The actions mentioned above, will be implemented through the following measures:

Digitisation of CPA's archives

- CPA will need to assess and define the volume of archives which will need to be digitised.
- Publish a Request for Tender for the provision of the service

Automation of existing HR procedures

- Publish a Request for Tender for the provision of services in assessing CPA existing policies and procedures.
- Define the specifications required for an HR Management System
- Publish a Request for Tender for the purchase and installation of an HR Management System, based on the defined specifications.

Upgrade of the network infrastructure

- Publish a Request for Tender for the purchase and installation of the required infrastructure (currently finalised and pending Board approval).

Upgrade data security systems

- Perform internally a GAP Analysis on the current systems (IT and Internal Audit Department)
- Based on the results of the GAP Analysis, prepare Request for Tender documents for the specifications of additional software required (currently drafted)
- Draft with the assistance of the advisors, required policies and procedures to be in line with DSA guidelines.

Update existing servers

- Based on the outcomes of the implementation of the other phases of the Project, CPA will assess the needs and proceed with defining specifications and purchase of necessary equipment.

Upgrade of PCS

- A Public consultation will be undertaken with all PCS users, to identify and document existing issues with the PCS, as well as changes needed in relation to data submission, dissemination and assessment.
- CPA will undertake negotiation with CPS's developer for the implementation of the upgrades

Installation of VTS in Larnaca and Vasiliko

- A study will be performed in-house to assess needs and define specifications for equipment – CPA has commenced this, and it is pending finalisation
- The project will be submitted to the Deputy Ministry of Shipping to be approved, as the VTS will be connected to the VTMS which is under the jurisdiction of the Deputy Ministry – CPA has obtained a preliminary support on the Project by the Deputy Ministry. Additionally, we are collaborating with the Deputy Ministry in assessing the specifications for the VTS, to ensure integration with VTMS.
- Publish a Request for Tender for the purchase and installation of the equipment – CPA is currently drafting the RfP documents.

CPA is ensuring the timely and successful implementation of the investment on the following key factors:

- Expert advisors on each subject will be on boarded to ensure alignment of the Project's outcomes with CPA targets and regulatory requirements.
- A Project Manager will be assigned to coordinate each of the project phases, to ensure collaboration between the various advisors and CPA departments, and the timely

implementation of the Project.

- The experience gained from the initial design, development and operation of the PCS, as well as the fact that the system is already in place and has been operational for several years, thus all users and CPA staff have become familiarised with the System.
- The developer of the PCS will be on-boarded to the Project to undertake the required changes to the System.
- The needs and preliminary specifications for the VTS stations are based on the successful operation of the VTS Station in Limassol which has been operating since 2003.
- The designing process is performed by the existing VTS personnel that is well experienced and knowledgeable.
- The Deputy Ministry of Shipping is up to date with the design process, in order to ensure that the VTS stations will be able to integrate with VTMIS.

Target population

Cyprus Port Authority and its personnel, port users, ships and ship agents, as well as all relevant governmental departments which utilise Ports Communication System for the seamless collection of required data from ships visiting Cyprus.

Timeline

Q2 2023 - Contract Signature for the main contracts through which the investment will be implemented:

Q4 2024 - Finalisation and installation of a number of systems through which the investment will be implemented.

Q1 2026 - Systems completion acceptance and installation of servers

State Aid

Not applicable.

This is due to the fact that the proposed project does not relate to port operations or any other operations that generate revenues for CPA. Specifically:

1. Part 1 of the project, which related to the upgrade of the current IT/IS infrastructure, hardware and software of CPA, is primarily used by back-office and administration and it is not directly utilised for revenue streaming operations.
2. Part 2 of the project is the upgrade of the Port Community System (PCS). The current software is operated by CPA but it is utilised by the Republic of Cyprus as per the requirements of the Directive 2010/65/EU (Single Window Directive) for the collection of data from incoming ships to the Republic for usage by the relevant authorities of the Republic. CPA does not charge for the usage of the software and it does not generate any revenues.
3. Part 3 of the project is the installation of a Vessel Traffic Station (VTS) at the Larnaca Port and the Vassiliko port. The VTS station will be monitoring ship movement to ensure the security of sea navigation and will also be utilised to monitor and mitigate sea pollution (due to accidents etc). CPA does not charge for the VTS services and no revenue is generated from VTS operations.

Furthermore, it is noted that the Cyprus Ports Authority is no longer an operator of the commercial ports in Cyprus, since port operations have been privatised in Limassol Port in 2016

and port operations in Larnaca Port are anticipated to be privatised by November 2021 at the latest. The Cyprus Ports Authority currently operated the small non-commercial ports (marinas) in Paphos and Latchi, as well as the Old Port of Limassol.

11.4 Green dimension of the component

The digital transformation will enable the move to a paperless environment and also result in reduced physical presence of the public at Government Departments and Services, thus, among others, reducing emissions.

Indicatively, this is illustrated in the example described below:

SKYTALE project

The transformation of the current digital infrastructure of the Ministry of Foreign Affairs and its Diplomatic Missions includes the replacement of a high number of datacentres and its legacy network and other digital equipment with new equipment that complies with the latest environmental guidelines (power consumption, recycling, production). The new equipment in combination with AI (power on only when needed) administration central systems are expected to reduce power consumption up to 40% from day one.

Furthermore, with this investment, the Ministry will enter the paperless era. Remote and static users will be supported and given the tools for a full digital mode of work. A better administration of the resources will give the administrators the opportunity to assess and fix the equipment earning longer life and less need for replacement.

The digital transformation is expected to give access to the necessary communications tools (VC, IP calls, remote technical support, mobile communications) that will enable the Ministry's and Diplomatic Mission's personnel to contact a wide variety of activities via online tools thus reducing significantly the need for travel (Cyprus as an island communicates with outside world mainly by air travel).

Even though all of the measures in this component contribute to a more paperless environment, most of them do not receive any measure field that accounts favourably to green transition. This is not the case however for two of the total four reforms included in this component. More specifically, the reform related to the "Development of a digital service factory", is assigned the "011bis Government ICT solutions, e-services, applications compliant with GHG emission reduction or energy efficiency criteria" measure field, which contributes by 100% to digital transition and also by 40% to green transition. This is also the case for the reform "Definition and implementation of a new cloud policy with regard to Government IT systems and services" which contributes by 100% to digital transition and by 40% to green transition. This reform receives the "055bis ICT: Other types of ICT infrastructure (including large-scale computer resources/equipment, data centres, sensors and other wireless equipment) compliant with the carbon emission reduction and energy efficiency criteria" measure field.

11.5 Digital dimension of the component

The digital transition is supported by the totality of reforms and investments in this component, with the digital coefficient being 100%. It is noted that most of the investments/reforms under this component relate to the "011 Government ICT solutions, e-services, applications" digital tagging, as their main objective is focused on the development of digital platforms and e-services.

11.6 Do no significant harm

In all measures included in this component that foresee construction works and purchase of new equipment, machinery, vehicles etc., all procurement procedures will require compliance with the

DNSH principle as explained in detail in the separate DNSH assessment of the corresponding measure. This will apply both for investments in the public sector and for financial support schemes to the private sector.

See separate assessment performed on this area included as ANNEX 3 - Assessment of the compliance of the Cyprus Recovery and Resilience Plan with the 'Do No Significant Harm' Principle.

11.7 Milestones, targets and timeline

The milestones and targets for the investments/reforms of this Component are presented in the attached table.

11.8 Financing and costs

The cost for each milestone and target is presented in the attached table.

11.9 Loan request justification (if applicable)

Reforms/Investments under this Component will be covered by the grant element of the Plan.

**Policy Axis 5 Labour market, social protection,
education and human capital**

**COMPONENT 5.1 Educational system modernisation,
upskilling and retraining**

12. COMPONENT 5.1 Educational system modernisation, upskilling and retraining

12.1 Description of the component

Policy area/domain: 5.1 Education⁵²

Objectives:

Cyprus's education system has been undergoing major reforms during the past few years, aiming to modernise pedagogical policies, upgrade structures and improve infrastructure. The main focus is on improving the quality of education and making better connections between the school and the labour market. The modernisation of the curricula of both primary and secondary education, the digitalisation of education, the establishment of a new system for teacher and school evaluation, the addressing of skills mismatch between education and the labour market, and also the extension of free compulsory preschool education, are basic educational reforms which promote the improvement of students' outcomes. Country Specific Recommendation (CSR) no 3 of 2019 asks Cyprus to "Deliver on the reform of the education and training system, including teacher evaluation, and increase employers' engagement and learners' participation in vocational education and training, and affordable childhood education and care". In 2020 Country Specific Recommendation no 2 there is an explicit reference to the need for "improving the labour-market relevance of education and training".

At the same time there are new challenges brought to the foreground by the pandemic, namely the need to speed up the digital transformation of schools, while making sure that no child is left behind. The new global realities also call for further investments for a green transition at all levels, including the contents and the infrastructures of education. Both the green and the digital transition are completely in line with national and European priorities as spelled out in the European Education Area Recommendation. The objective of the reforms and investments proposed is to enhance the quality and effectiveness of education at all levels, in order to help all students to acquire the right skills and competences for today's and tomorrow's society and economy.

Leveraging digital technologies and optimising our nation's innovation capacity is vital to supporting a recovery that leads to greener, more inclusive, sustainable economies, and stronger, more resilient societies. Cyprus lags behind in digital performance and maturity – including in rankings on digital skills - in relation to other EU member states an issue that needs to be addressed early on, to ensure a successful digital transition, by designing and delivering a comprehensive plan, either by building on existing measures or by formulating new ones to cater the needs of all population groups as well as specifically ICT professionals. A digitally fit society leads to digitally intensive industries, creates new career opportunities, promotes innovation and entrepreneurship and increases the country's growth potential, resilience, and international competitiveness, creating an environment conducive to foreign investment.

The component focuses on providing students and all other population groups, including ICT professionals, with the necessary skills and competences to be effective in the modern labour market, in line with current and future labour market needs and in relation to the green and digital transitions. The proposed reforms and investments are also in line with

⁵² Including COFOG (General government expenditure by function) classification

the European Skills Agenda, the Pact for Skills, the European Education Area and the Digital Education Action Plan.

Reforms:

- Reform 1: Addressing skills mismatch between education and labour market (Secondary and Higher Education)
- Reform 2: A new teacher and school evaluation system
- Reform 3: Extension of free compulsory pre-primary education from the age of four
- Reform 4: Digital transformation of school units with the aim of enhancing digital skills and skills related to STEM education
- Reform 5: e-skills Action Plan – Implementation of specific actions

Investments:

- Investment 1: Construction of Two Model Technical Schools
- Investment 2: Skilling, Reskilling and Upskilling

Flagship initiatives: Modernise, Reskill and Upskill

Total estimated budget to be funded through the RRP: €94 mln

12.2 Main challenges and objectives

Main challenges

As mentioned in the Education and Training Monitor 2020, the reforms implemented in the Cypriot Education System are improving the educational offer, nevertheless, further efforts should be made in some crucial domains:

- **Digital education** is clearly a policy focus, but implementation needs to be improved. Distance learning highlighted several gaps. Since the beginning of the pandemic there have been coordinated efforts between the Ministry of Education, Culture, Sport and Youth (MoECSY) and the Deputy Ministry for Research, Innovation and Digital Policy (DMRIDP) to upgrade school infrastructure, make appropriate equipment accessible to all students and teachers and enhance teachers' capacity to implement distance learning. The capacity of teachers to use information and communication still varies, the new forms of digital learning require further upgrade of equipment and there is still a need to improve pedagogies to unlock the potential of digital education. Basic digital skills are necessary at all levels of society, while skills represent a key enabler of the holistic digital transformation of societies and economies. Digital skills are essential in opening the door to a wide range of opportunities in the 21st century, a key enabler for digital transformation and a prerequisite for an open and inclusive society and a dynamic digital economy.
- Several initiatives in **vocational education and training (VET)** over the past years have aimed to improve its relevance to labour market needs and enhance its attractiveness, yet participation in upper secondary VET remains low. New premises have been constructed, equipment is upgraded, curricula are being modernised, new courses of studies have been established to better meet the needs of the labour market. The Post-Secondary Institutes of Technical Education have received a new impetus and their graduates have high percentages of employability. The apprenticeship system is also being modernised, offering learning pathways with prospects for their students. There is a need, however, to

further improve the capacity and relevance of VET. Cooperation with employers needs to be further developed and along with market needs research should feed into the process of creating new courses of studies. School infrastructure needs to also be modernised and its capacity needs to be improved. Furthermore, the merits of Technical and Vocational Education should be communicated better to the prospective students and the society at large.

- **Employability among young graduates** has risen in 2019, but health and science, technology, engineering and mathematics (STEM) graduates remain scarce while demand is high. Cyprus enjoys one of the highest percentages of Tertiary Education Graduates. Employability in some areas of studies is increasing although relatively low. In STEM related professions the demand is high while the supply is scarce. Comprehensive efforts, involving all levels of education need to be undertaken to enhance the attractiveness of STEM subjects from an early age. This should include cross sectoral cooperation and high-quality student guidance.

Objectives

The objectives of the component are the following:

- Complete the reform of the education system, including reforming the teachers’ appraisal system, the rationalisation of the utilisation of human resources in primary and secondary education, as well as the improvement of the quality of teaching.
- Address the skills mismatch between education and the labour market.
- Upgrade and promote technical and vocational education and training providing the necessary infrastructure.
- Enhance digital skills in schools (students, teachers, administrative staff).
- Facilitate distance learning - infrastructure, training.
- Development and enhancement of digital skills across the whole spectrum of education, public administration, enterprises and society.

CSRs addressed

Reforms /Investments	Year / CSR Number Recital/s	Justification
Reform 1: Addressing skills mismatch between education and labour market	CSR 3 2019, Recital 11 CSR 2 2020, Recital 21	The project will support initiatives in various levels and types of Education which will address the mismatch among the skills required by labour market and the ones provided in the education system
Reform 2: A new teacher and school evaluation system	CSR 3 2019, Recital 11	The project will give impetus to the implementation of a crucial reform, which will enhance the quality of education and the improvement of educational outcomes
Reform 3: Extension of free compulsory pre-primary education from the age of four	CSR 3 2019, Recital 11	The proposed reform aims at providing affordable early childhood education, guaranteeing equal opportunities when accessing education, improving educational

		achievements and increasing labour market participation
Reform 4: Digital transformation of school units with the aim of enhancing digital skills and skills related to STEM education	CSR 4 2019, Recital 11, Recital 15 CSR 3 2020, Recital 24	The project will support the digital transition of the education system.
Reform 5: e-Skills Action Plan Implementation of specific actions	CSR 4 2019, Recital 11, Recital 15 CSR 3 2020, Recital 24	The project will promote the enhancement of digital skills across the whole spectrum of education, public administration, enterprises and society, enabling all citizens to best utilise and reap the benefits of digital technologies and facilitate the successful implementation of our digital transformation agenda.
Investment 1: Construction of Two Model Technical Schools	CSR 3 2019, Recital 11 CSR 2 2020, Recital 21	The project will provide the students and the educators with a modern well-equipped environment for learning.
Investment 2: Skilling, Reskilling and Upskilling	CSR 4 2019, Recital 11, Recital 15 CSR 3 2020, Recital 24	The project will strengthen digital, green and blue skills of the employed and the unemployed, digital skills for people over 55 and promote entrepreneurship training for the unemployed people with special emphasis on unemployed women.

12.3 Description of the reforms and investments of the component

Reforms

- Reform 1: Addressing skills mismatch between education and labour market (Secondary and Higher Education)

I. Higher Education

Challenges

Skills mismatch is a major concern. In the EU a fifth of adult employees have lower skills than needed by the labour market, when starting their jobs, thus indicating skill gaps at recruitment and 39% of EU workers feel that their skills are not effectively utilised at work (Cedefop, 2015). This mismatch between skills and jobs can have adverse effects on individuals (wage penalties, job and life satisfaction), firms (negative consequences for productivity and competitiveness, low performance, loss of profits), but also for countries (unemployment, low competitiveness and unattractiveness to investors) and the EU economy as a whole. Moreover, according to the Council Recommendation on tracking graduates (2017) the employability of graduates leaving education and training is a matter of concern in many Member States, in particular because the

employment rate of recent higher education graduates in the Union has not fully recovered after the 2008 financial crisis.

Although, at national level the skills mismatch is identified as a great challenge that needs to be urgently addressed, national data on the type and extent of skills mismatch are scarce. Different types of mismatch (such as overeducation - undereducation, over-skilling - under-skilling, skill gaps, skill shortages, horizontal mismatch and skill obsolescence) need to be identified as these call for different actions. Therefore, good quality national data about labour market needs and what graduates do after obtaining their qualification or leaving Higher Education and training is essential, in order to identify skills gaps and mismatches, graduates' employability problems as well as solutions to such problems. The Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) also highlight the need and the value of this kind of information.

Objectives

The Department of Higher Education (DHE) of the Ministry of Education, Culture, Sport and Youth (MOECSY) aims to implement an ambitious research programme entitled "Graduate Tracking of Cyprus Higher Education", that will collect valid and reliable national data regarding graduates' pathways after leaving Higher Education (HE) and training and the skills acquired in HE and are used in the work setting. Moreover, this research program will lead to the collection of data from employers regarding labour market needs, thus, providing crucial insights on graduates' employability, on possible skills gaps and mismatches, and on graduates' mobility across the EU. This information will provide the evidence base to policy makers, higher education institutions, researchers and employers in order to make informed decisions that will ultimately contribute to increasing the responsiveness of Cyprus's education and training system to labour market needs with benefits for the individuals but also for the economy as a whole. The need for this kind of database has become even more urgent due to coronavirus pandemic, which is likely to have significant effects on learners, graduates, employees and employers.

The DHE in 2020, realising the importance of skills gap between HE and labour market, in collaboration with the two Public Universities of Cyprus (the University of Cyprus (UCY) and the Cyprus University of Technology (CUT) designed and implemented a pilot study on graduate tracking and specifically on skills acquired at University and skills needed by the labour market. The aim is to expand this pilot study by involving all Cyprus Institutions of Higher Education (Cyprus Open University, Private Universities and Institutions of Tertiary Education), as well as employers in order to have the perspective of the labour market in Cyprus regarding the skills offered and the skills needed.

The results of the proposed study can strengthen career guidance of current and prospective HE students as well as graduates. Prospective students can get valuable information that can guide them to make informed career decisions in relation to the demands of the labour market, and in relation to further studies that will enhance their professional ability and competitiveness in the labour market.

Based on the analysis of the results and consequently the policy recommendations, the Cyprus Higher Education Institutions (HEI) will be able to review and update the design, content and delivery of programmes of study in order to equip their graduates with knowledge and competencies they need to succeed in their professional lives. Moreover, employers will be given the opportunity to influence the design and delivery of Higher Education study programmes. This alignment will contribute to the improvement of Higher Education Programmes. At the same time, Secondary Education Career Counselling Services and Higher Education Institutions Career Counselling Services can provide information to students on the labour market needs, so as to make the most suitable for themselves career choices.

The educational system of Secondary and Higher Education of Cyprus will benefit from high quality national data as this will enable policy makers and educational and training providers to take actions to improve learning outcomes, the employability of graduates, address skills gaps and mismatches and ensure social inclusion. Moreover, this kind of data can be used by the MOECSY as a basis for the development of policies, strategies and tailored-made lifelong learning programmes. The educational system can also make use of such data in order to assess the effectiveness of any innovations and reforms that will be implemented and at the same time hold educators and trainers accountable for meeting set goals.

Employers/labour market will enjoy high productivity levels by having graduates of Higher Education equipped with the knowledge, skills and competences needed by the local and international labour markets. Moreover, the Ministry of Labour, Welfare and Social Insurance (MLWSI) based on findings will have the necessary information available in order to proceed to the design and development of new training programmes addressing re-skilling and up-skilling. Therefore, we will ensure that every adult has lifelong opportunities to constantly update and acquire new skills that will allow him/her to access the labour market and to maintain his/her employability throughout his/her working life.

Finally, the proposed reform will encourage greater communication and cooperation among all the afore-mentioned stakeholders.

Implementation

This proposal complies with the guidelines of the Council Recommendation on tracking graduates (2017) towards the establishment of national graduate tracking systems across all Member States as such systems are not well developed in many parts of the Union. Since Cyprus is identified as one of the Member States with no system level graduate tracking, a MOECSY Project Management Committee will be established which will be coordinated by the Department of Higher Education of the Ministry of Education, Culture, Sport and Youth. Appropriate coordination and communication mechanisms will be put in place in order to establish cooperation with other relevant stakeholders such as the Ministry of Labour, Welfare and Social Insurance (MLWSI), the Human Resource Development Authority and employers' representatives (e.g. the Cyprus Employers & Industrialists Federation, the Cyprus Chamber of Commerce and Industry), etc.

The Committee will be responsible for the overall monitoring of the proposed study, whereas the developing of the actual research plan and methodology, the sampling strategy, the design of an online platform for the collection of data, the questionnaires' content, the statistical analysis and interpretation of results and finally the derivation of policy recommendations, will be assigned to a tender through open national procurement procedures. The tender will also be responsible to deliver a monitoring report to the MOECSY Project Management Committee at an annual basis.

Following the Council's recommendations, data collected from graduates is expected to cover socio-biographical and socio-economic information, information on higher education and training, employment or further education and training, relevance of higher education and training and skills acquired to employment or life-long learning, career progression, job satisfaction, motivation for study etc. Data from graduates will be collected in the first and fifth year after completion of their studies; the same graduates will be revisited over time in order to overcome the limitations of cross-sectional approaches. Data from employers will cover information on workforce occupational structure and characteristics, recruitment, skills used by the current workforce and skills needed locally and globally, workforce professional development activities, demand for workforce etc. (Cedefop, 2017).

State Aid

Not applicable.

Target population

Current and prospective Higher Education (HE) students and graduates, Higher Education Institutions (Public and Private), employers/labour market.

Stakeholder involvement

A significant number of stakeholders will be involved in the MOECSY Project Management Committee that will consist, as already mentioned, of representatives of the Department of Higher Education of the Ministry of Education, Culture, Sport and Youth and representatives of the Ministry of Labour, Welfare and Social Insurance. Furthermore, during the preparatory phase of the project, as well as during the data processing phase, a significant number of stakeholders are expected to be involved, namely the representatives of Higher Education Institutions, employers' representatives (e.g. the Cyprus Employers & Industrialists Federation, the Human Resource Development Authority, the Cyprus Chamber of Commerce and Industry etc.), the Cyprus Statistical Service and Student Unions. Thus, the involvement of representatives with diverse backgrounds is expected to bring significant knowledge in their area of expertise.

Impediments

Sampling limitations can be an impediment, such as the willingness of graduates and employers to participate or the over- or underrepresentation of certain groups (such as mature students, ethnic minorities etc.). Actions (e.g. provision of various incentives to achieve good response rates, promotion on media, social networks) will be taken so as to encourage graduates as well as employers' participation in the survey.

The collection, storing and processing of data must comply with the national GDPR requirements. Therefore, the project team will seek advice from the Commissioner for Personal Data Protection in Cyprus in order to ensure that all steps of the project are in accordance to GDPR.

The establishment of a unique Graduate identification is considered important for graduate tracking at both national level and across borders. This unique identifier will enable the tracking of mobile graduates but also the collection of longitudinal data. For this purpose, peer learning activities will take place with more experienced countries in graduate tracking such as Sweden, Austria etc.

The Department of Higher Education (DHE) of the Ministry of Education, Culture, Sports and Youth will have the responsibility of coordinating all involved parties, managing and implementing the proposed study in order to ensure the successful implementation of the national mechanism.

Timeline

A pilot study is already in process. A pilot questionnaire has been administered to graduates of the two Public Universities in 2020 and the analysis of collected data and interpretation of results is underway. A field study will take place in spring 2022 which will involve the collection of data from graduates of all Cyprus Higher Education Institutions, as well as from employers. Preliminary findings from the Field Study will be available in summer 2022 and will be shared with various stakeholders such as the Department of Secondary Education (General and Vocational), Higher Education Institutions, the Ministry of Labour and Social Insurance, employers' representatives etc. The study will proceed with further data processing and a detailed report with study findings and policy recommendations will be available by the end of 2023. As mentioned before, an annual monitoring report of the research program is to be conducted by the tender at a yearly basis in order to ensure a significant number of graduates and employers' participation in each

cohort. Overall monitoring will also be taking place at the level of the MOECSY Project Management Committee in order to ensure that data collected is used to improve and/or re-design Higher Education programmes of study, improve or re-design Secondary Education Curriculum, improve employability, career guidance, and design lifelong learning training programmes to address skills gaps and mismatches as well as future skills needs. Monitoring findings will be available annually throughout the implementation of the project.

II. Secondary Education

Challenges

Cyprus Competitiveness Report 2019⁵³ highlights several weaknesses regarding Human Capital and skills mismatch in particular:

- “While overall tertiary educational levels are impressive, Cyprus has a comparatively low share of pupils enrolled in vocational secondary education, with only 16 percent compared to the EU28 average value of 47 percent. The low level of vocational education for Cyprus presents a mirror image of the high levels of tertiary education, suggesting that secondary level education is orientated towards preparing students for entry into tertiary education, rather than equipping them with specific skills to enter the job market”. (p.94)
- “Alongside a low rate of vocational education, among the benchmark countries, Cyprus also has the lowest proportion of Science, Technology, Engineering and Mathematics (STEM) graduates among 20-29-year-olds. The country with the highest number, Ireland, has 32 STEM graduates per thsnd individuals aged 20-29, over three times the number in Cyprus”. (p.94)
- “The proportion of early-school leavers (i.e. students that fail to obtain upper-secondary qualification or equivalent) is 9 percent in Cyprus, 2 percentage points lower than the EU average.” (p.94)
- “While the education system in Cyprus is seemingly well-funded and produces large numbers of tertiary graduates, educational outcomes do not match the level of spending. Cyprus has the lowest PISA results for science, mathematics and reading among the benchmark countries and is behind the EU average. Although standardised test scores can be criticised for overly emphasising quantifiable aspects of education, Cyprus stands out as a country with both significant expenditures on education and relatively weak test scores.” p.98)
- “Cyprus has the lowest share of 16 to 74-year olds reporting that they have above basic digital skills, with only 19 percent reporting a basic level, compared to an EU average of 31 percent.” (p.98)
- “The comparatively low level of science and digital skills can be viewed in the context of various indicators that point to low levels of adoption of digital technologies in the private sector and public institutions. Even if current demand for STEM or digital skills is modest, the increasing importance of digital technologies across all sectors suggests that Cyprus may be at risk of falling behind, if the Cypriot workforce and the educational system are not fully prepared to adapt to new and emerging trends.”
- “Discrepancies between education and the labour market are also apparent from estimates of skills mismatch. Based on the proportion of tertiary education graduates currently employed in low-skilled jobs, Cyprus has the highest levels of over-qualification

⁵³ Cyprus Competitiveness Report is based on more than 150 statistical indicators, benchmarking Cyprus competitiveness performance over time and against 12 countries as well as the European Union average.

in the workforce among the benchmark countries, particularly in manufacturing, professional services, wholesale and retail distribution, and public administration.”

- Similarly, a mismatch of horizontal skills suggests that many employees work in occupations that are unrelated to their field of education. This mismatch not only exists in fields such as the humanities or education, but also in fields such as computing, science, mathematics and engineering (p.100)

The Competitiveness Report concludes that “taken together, these findings suggest that the educational system is not as efficient as it could be in delivering a qualified workforce corresponding to market needs. This is an important competitiveness issue if it means that employers, particularly in the private sector, are constrained by a lack of appropriately skilled workers. And it is obviously an issue for those unable to find work that suits their level and field of education. Finally, it could also imply that employers and workers need to pursue further training, whether through post-education or in-house training”. (p.100)

One of the main recommendations of the Report is therefore: “To future-proof the availability of skills and human capital, raising the number of graduates with technical and natural science qualifications and strengthening education and training for digital skills and entrepreneurship. Monitoring current and future skill requirements should also be completed to ensure that skill needs of economic sectors are met”.

Similar recommendations are included in Cyprus Country Reports of 2019 and 2020 by the European Commission, which state that: “prevalent skills mismatches for tertiary graduates and low participation in adult learning, especially of the low qualified, indicate the need for enhanced upskilling and reskilling measures”⁵⁴

The new strategy for the long-term sustainable growth of the Cyprus economy, which is currently being prepared, aims to identify new areas of economic growth and guide policymakers towards achieving sustainable economic growth and prosperity over the next 10-15 years. In this context, the increase in employment demand in these new areas of economic growth should also be considered while identifying the specialisations and skills required in the Cyprus economy. As a consequence, the educational system and the overall education policies, will have to adapt to the new existing challenges, by reassessing the educational programme content and delivery methods while bridging the gap between the labour market and the world of education and training. Among else, through the educational programmes, the students will have the opportunity to learn and adapt to the types of skills, knowledge and competencies required in the workforce.

The need to address the observed skills mismatch is well documented in the following recommendations provided in the context of stakeholder consultation with the social partners and other collective organisations, which identify that there is a need for:

- An overall improvement of the educational system in order for it to become more flexible and responsive to labour market needs, with an emphasis on upskilling and reskilling, and encouraging of lifelong learning. All interested stakeholders should be involved in the process.
- Improvement of technical and vocational education and learning, a better connection between education provided within the formal educational system and market needs, enhancement of the Career Counselling and Educational Services and introduction of new courses that address skills mismatch.

⁵⁴ European Council Recommendations for Cyprus 2019

- Introducing innovation and research in courses offered by the secondary education, improvement and upgrade of secondary technical and vocational education and training, and an emphasis on improving professional skills for all pupils of secondary education.
- Overall improvement of employees' professional qualifications and skills and an introduction of a comprehensive mechanism for monitoring and evaluation.
- Need to improve schools' infrastructure.

Objectives

A mismatch between the educational system and the labour market needs can be a serious threat to the economic growth and development. Therefore, the proposed reform aims at the development of a comprehensive national strategy to address the observed skills mismatch between education and labour market by continually monitoring skills needs and developing and implementing measures towards meeting those identified needs. The ultimate objective of the proposal is to improve the competitiveness of the country and enhance social cohesion, while eliminating the disparity between the labour market and the overall education.

Implementation

For the successful implementation of the Reform, the MOECSY aims to form a MOECSY Project Management Committee made up of representatives of stakeholders (MOECSY, employer and employee organisations, school and university representatives etc.), with a mandate to develop, implement and monitor a comprehensive plan to address the skills mismatch based on the evidence provided in the reports and policy documents mentioned earlier as well as evidence from more detailed future studies.

The Strategy will be translated into an action plan with a well-rounded series of actions and activities that together will form the backbone of reforms to the education system and the labour market in the coming years. It could include actions such as:

- i. Enhancement of the Career Counselling and Educational Services (CCES) of the Ministry of Education, Culture, Sports and Youth (MOECSY)
- ii. Reform and modernisation of the secondary schools' educational programmes and curriculum to improve, among else, digital literacy, emotional intelligence and soft skills, entrepreneurship skills, etc.
- iii. Introduction of two additional programmes of study offered by the Department of Secondary General Education and two additional programmes of study offered by the Department of Secondary Vocational Education and Training that will be tailored to labour market needs.
- iv. Introduction of an in-job shadowing programme for the pupils of the Department of Secondary General Education
- v. Provision of high-quality professional training to Secondary education teaching staff in close collaboration with labour market experts.
- vi. Upgrading of teaching rooms and laboratories in schools so that teaching staff and students have access to the latest technology and equipment relevant to their studies.

State Aid

Not applicable.

Target population

Secondary and university students, young people that are identified as 'NEETs' (including and not limited to early school leavers), employers, employees, society as a whole.

Stakeholder involvement

Stakeholders, including employer organisations and representatives of enterprises, will be involved in the design and implementation for most of the actions outlined above.

Impediments

The proposed reform aims in connecting education and labour market. It will take a concerted collaborative effort from governmental agencies and private sector stakeholders in order for the reform to be successfully designed and implemented.

As mentioned above, the Ministry of Education, Culture, Sports and Youth will maintain the overall responsibility of the project through a dedicated working group. Appropriate coordination and communication mechanisms will be put in place in order to ensure effective collaboration and feedback from the Committee.

Timeline

Q4 2024 - Implementation of key measures from the National Skills Action Plan including at least:

- Report on the preliminary results of "Graduate Tracking of Cyprus Higher Education" survey.
- At least 320 of the secondary schools' educational curricula are reformed to improve digital literacy, emotional intelligence, soft skills and entrepreneurship skills.
- Two new programmes of study are developed.

Q4 2025 - At least 3100 secondary education teaching staff are trained in the reformed educational curricula

- **Reform 2: A new teacher and school evaluation system**

Challenges

This reform is necessary in order to modernise and reform the existing teacher's evaluation system which dates to 1976, by introducing a new system for teacher and school evaluation. The new system must:

- provide incentives for teachers to systematically retrain and improve their skills
- allocate responsibilities to each school to assume an essential role in the evaluation of school's work and the provision of quality education
- allow educational authorities to assess the quality of the education provided, with the aim to improve educational outcomes and
- enable selecting school leaders in a more effective way.

The proposed evaluation system will include both the evaluation of the school as a whole and that of the teachers individually. A single evaluation scheme will be developed for Primary, Secondary and Technical and Vocational Education with differentiated elements, according to the distinctive features of each level of education. The main challenges of the reform for the New School and Teacher Evaluation System are the following:

- Reaching a consensus among stakeholders regarding the new system

- New posts are likely to be needed to allow for the new system to be implemented, which creates increased budgetary needs
- New duties will be assigned to key leadership persons at the schools and the Ministry (e.g., school heads, deputy school heads, school inspectors etc.), requiring a cultural change
- Teachers, school leaders and inspectors need to acquire new skills, in order to successfully implement the new system (e.g., managerial skills, leadership skills and competences, etc.)
- The reform in teacher and school evaluation will facilitate the transition of the educational system into the digital era. Moreover, it is expected to improve teachers' digital skills and competences as well as student outcomes.
- Budget constraints.

Objectives

The high-level objective is to establish a new and contemporary evaluation system of schools and teachers, to further promote quality of education and enhance student learning outcomes. More specifically, the proposed component/reform's objectives are:

- The development of a new, modern system for the comprehensive evaluation of the school based on the distinctive features of the Primary, Secondary and Technical and Vocational Education levels
- The development of a new, modern system for teachers' evaluation (teachers, deputy head teachers, head teachers – school leaders, inspectors, etc.) based on the distinctive features of the Primary, Secondary and Technical and Vocational Education levels.
- To facilitate change in schools
- To facilitate the promotion of quality in education.

The reform in teacher and school evaluation will also facilitate the transition of the educational system into the digital era and is expected to improve teachers' digital skills.

The main characteristics of the New System for School and Teacher Evaluation are:

- Assessment will be multi-dimensional and continuous
- A continuous formative assessment of school units, based on school's development plan
- An external evaluation of the school units on a regular basis by an evaluation committee
- A continuous formative assessment of teachers, deputy heads, heads
- A comprehensive system for teachers' evaluation (teachers, deputy heads, heads), based on the distinctive features of the school level
- A comprehensive model for continuous professional development of teachers
- Evaluators' training and development
- Meta-assessment of the New Evaluation System and continuous improvement

Implementation

The Ministry of Education, Culture, Sport and Youth has tabled a well-prepared proposal drafted

by a scientific committee. Although initial consultations with the teachers' unions and other stakeholders took place, there has not been significant progress yet. Comments and suggestions have been received by a number of stakeholders on the drafted proposal and the consultations with all stakeholders will continue until an agreement is reached. A future agreement on the framework of the new evaluation system will be validated by a relevant decision of the Council of Ministers and a revised legislation bill will be submitted to the House of Representatives.

State Aid

Not applicable.

Target population

All teachers at different posts (teachers, deputy head teachers, head teachers and inspectors), at all levels of education (primary, secondary, technical and vocational) and the School units.

Stakeholder involvement

All teacher Unions, Parents Unions, and the Inspectors' Unions have participated in the discussions for a new evaluation system. This consultation will continue in the next months in order to formulate an agreed proposal.

Impediments

- (a) Budget restrictions (concerning new posts) – to be covered through national funds
- (b) A possible risk is the reluctance of teacher unions, as main stakeholders, to engage in the reform and apply it into practice. In order to facilitate this step, it is important to have a decision by the House of Representatives, where the draft legislation will be discussed.

Timeline

2021 - Discussions with all stakeholders in order to achieve consensus.

2022 - A draft proposal will be submitted to the Council of Ministers and a bill will be submitted to the House of Representatives-Preparations for the first phase of implementation will commence.

Q4 2023 - The legislation for establishing a new Teacher and School Evaluation mechanism has been enacted, stipulating that the new mechanism should be applied at the latest from school year 2024/25

Q4 2025 - At least 1100 teaching staff (teachers, deputy heads and school heads) have been trained for the new Teachers and School Evaluation system.

• **Reform 3: Extension of free compulsory pre-primary education from the age of four**

Compulsory pre-primary education in Cyprus is offered free of charge to children aged four years and eight months and over, who attend public kindergartens. The proposed project will focus on the gradual eight months' extension of the entry age in compulsory pre-primary education. Places in public kindergartens will be allocated, based on criteria set. It is expected that public kindergartens will not be able to accept all applicants. Therefore, a grant will be provided to community or private kindergartens, under agreements, in order to cover the tuition fees of children that will enrol in community and private kindergartens.

Affordable early childhood education is a policy priority. The extension of free compulsory pre-primary education from the age of four years will guarantee equal opportunities by reducing financial barriers to accessing education. Furthermore, this reform will encourage and motivate families to enrol their younger children at kindergartens and will facilitate the entry/re-entry into the labour market of persons with childcare responsibilities, especially of women.

At the same time, early measure, provided through early years' education programmes, can improve outcomes for children, families, and communities. Enrolment in affordable Early Childhood Education and Care (ECEC) programmes improves learning outcomes (knowledge, skills and competences).

Challenges

- Affordable Early Childhood Education and Care (ECEC): The provision of affordable high quality Early Childhood Education and Care (ECEC) is an area that needs improvement in Cyprus and is necessary for promoting children's early development and their subsequent school performance in various domains, such as language use and emerging academic skills, early literacy and numeracy, and socio-emotional skills, as well as for purposes of educational and social inclusion.
- Participation of persons with child caring responsibilities in the labour market: The COVID-19 pandemic has underlined the need to facilitate the access to the labour market of members of the population with childcare responsibilities, especially women. Women's participation in the labour market remains considerably lower than that of men and measures are needed to facilitate entry/re-entry in the labour market and employment. This is more pronounced in the light of the impact of the pandemic on family incomes, which has underlined further the need to make ECEC available and affordable to all families and their children.
- Inequalities in our educational system-social cohesion: The challenges Cyprus faces relating to the growing social, cultural and linguistic diversity of its population highlight the need to promote, develop and ensure equal and affordable access for all to early childhood development and education and social cohesion.

Objectives

The main objectives are:

- To promote, develop and ensure equal access to affordable, early childhood development and education, particularly for older children (before attending primary education), and, especially for children at risk of delayed development and socioeconomic deprivation.
- To ensure the availability and affordability of ECEC and to develop an action plan, through the prism of education for all. To provide, through pre-school education (just before the enrolment to primary education), children with an environment, with structured and non-structured activities, focusing on learning and the development of important learning skills.
- Facilitate the entry or re-entry of the population with childcare responsibilities into the labour market, especially of women.

Implementation

The reform will focus on the gradual eight months' extension of the entry age in compulsory pre-primary education and will be implemented in three different stages. During the first stage, compulsory education will be extended for two months, while during the second stage will extend compulsory education will be extended for two more months (that is four months, in total). Full implementation of the reform will take place during the last stage (that is eight-month extension of compulsory education). The Government will focus on the continuity of the reform with funds from the Annual State Budget. According to the relevant and estimated data, about 1500, 3000 and 6000 children are expected to apply for enrolment, during the three stages of the reform, respectively. Public schools will only be able to accept part of applications during the

three stages, due to infrastructure limitations. Therefore, during the three stages applicants will have to be allocated to community and private kindergartens according to criteria and special agreements.

The implementation of this reform will take place through the provision of grants to community and private kindergartens in order to cover the tuition fees at private pre-primary classes. It is noted that if the Government were to undertake the construction and operation of new classes that would be needed for the extension of free compulsory pre-primary education at public schools, additional costs would have to be incurred with respect to the capital and operating costs. Finally, this reform will assist the private sector to make private investments whereas if the Government were to implement this measure this would crowd out private investments. Therefore, in the long-term it is not expected to have negative impact on the budget balance.

A proposal will be presented to the Council of Ministers for approval. The Department of Primary Education, in cooperation with other departments of the Ministry of Education, Culture, Sport and Youth (MoECSY) will be responsible for the implementation and assessment of the reform, together with the Ministry of Finance and the Ministry of Labour, Welfare and Social Insurance.

The Law regarding compulsory education and the Regulations regarding the operation of public schools will need to be amended, in cooperation with the Legal Service of the Republic of Cyprus.

State Aid

Not applicable.

Target population

Children aged 4-4 8/12 years, especially children at risk of socioeconomic deprivation, population with childcare responsibilities, community and private kindergarten owners.

Stakeholder involvement

Stakeholders involved are the Ministry of Education, Culture, Sports and Youth, the Ministry of Finance, the Ministry of Labour, Welfare and Social Insurance, owners of community and private kindergartens, the School and Parents' Boards and the Trade Unions.

Impediments

During the reform implementation some impediments might arise regarding the different policies and procedures between the public and the private sector (amount of subsidy granted etc.). Any impediments are expected to be overcome through ongoing consultation with all stakeholders involved.

Timeline

Q4 2022 - The legislation for the new Law regarding extension of free compulsory pre-primary education from the age of four years and the operation of public schools has been enacted by Q4 2022.

Q4 2024 - At least 2500 children have benefitted from support for the free compulsory pre-primary education from the age of four in community and private kindergartens.

Q2 2026 - At least 7425 children have benefitted from support for the free compulsory pre-primary education from the age of four in community and private kindergartens.

- **Reform 4: Digital transformation of school units with the aim of enhancing digital skills and skills related to STEM education**

Challenges

Considering the post-COVID era and the growing demand of everyday life to respond successfully to the “online world”, there is urgent need to develop students’ digital skills. To achieve this goal, we intend to provide the digital equipment for the creation of e-class, the transformation of the curriculum and the training of teachers to support the enhancement of digital skills through school education.

According to the TIMSS results (2019) for Cyprus, “computers available for students to use during mathematics lessons” for only 9% of grade 8 students compared to 37% of students internationally. In addition, “computers available for students to use during science lessons” for only 7% of grade 8 students compared to 38% of students internationally. Only 14% of grade 4 students participate in classrooms that have computers which students can share while the respective percentage of grade 8 students is 2%.

Hence, there is urgent need to tackle the provision of resources in school classrooms, train teachers and transform the curriculum. In this way, the proposed reform will contribute to the Reskill and Upskill Flagship goal of 70% citizens with basic digital skills and to reduce the share of 13-14 year of students who underperform in computer and informational literacy under 15%.

Objectives

The main goal of the proposal is the enhancement of digital skills. Digital competences based on the Digital Competence Framework 2.0⁵⁵ include the following key components: information and data literacy, communication and collaboration, digital content creation, safety and problem solving. A related goal is to provide students opportunities to acquire the 21st century skills (collaboration and teamwork, creativity and imagination, critical thinking, problem-solving) and the improvement of students’ learning outcomes.

The digital transformation of school units is a fundamental part of the overall overarching policy of Cyprus’ digital transformation agenda, which falls under the competences of the Deputy Ministry of Research, Innovation and Digital Policy. The said action will be implemented by the Ministry of Education, Culture, Sport and Youth.

The overarching objective is the transformation of the curriculum and the development of the educational material to achieve the aforementioned. We tackle this by developing digital skills as a cross-curricular theme from primary to secondary education and by incorporating STEAM⁵⁶ teaching methodology. It is necessary to provide the resources in school classrooms and the respective training for teachers.

Specifically, the objectives are:

- Equip/upgrade the school classrooms by developing e-classes. In this way, it will provide the infrastructure to develop and apply students’ digital skills in everyday teaching and learning.
- Equip students to have access to the infrastructure for developing and applying digital skills (based on eligibility criteria). In this way, we aim to offer equal opportunities for

⁵⁵ <https://ec.europa.eu/jrc/en/digcomp/digital-competence-framework>

⁵⁶ STEAM is an educational approach to learning that uses Science, Technology, Engineering, the Arts and Mathematics as access points for guiding student inquiry, dialogue, and critical thinking. By teaching students to think critically, problem solving and using creativity, the STEAM framework enables students to work in fields that are poised for big growth.

students of low socio-economic background through the use of educational technology.

- Provide the respective training to in-service teachers for developing digital skills.
- Transform the curriculum and prepare educational materials to enhance digital skills and STEAM methodology as a cross-curricular theme.

Implementation

The implementation will take place according to the following series of steps:

- Identify the current needs regarding hardware for the creation of e-class (school classrooms); Assess the current hardware; Equip school classrooms
- Hardware: Laptop, projector and peripherals
- Equip students with hardware (laptop/tablets); Based on eligibility criteria students from third grade of primary school and second grade of secondary school
- Transform curriculum and produce educational material towards enhancing digital skills (cross-curricular) and STEAM methodology
- Train in-service teachers to develop students' digital skills

Implementation of this reform requires the involvement of the Permanent Secretary of the Ministry of Education, Culture, Sport and Youth, the Directors of General Secondary, Technical/Vocational Secondary and Primary Education, the Director of Pedagogical Institute, the Head of the ICT sector of the Ministry and other existing staff of the Ministry. Also, it is planned to involve the participation of Universities, Parents' Associations, Educational Trade Unions, the Committee on Educational Affairs and Culture of Cyprus Parliament, and the Commissioner for Personal Data Protection. Furthermore, working groups will be created in order to support this project which will involve experts from the labour market and other professionals.

State Aid

Not applicable.

Target population

Teachers, School Deputy Principals and School Principals, Inspectorates and Discipline Advisors and Students, of all levels of education (primary, secondary general, secondary technical/vocational).

Timeline

Q2 2023 - Classrooms in at least 700 schools have been digitally equipped with laptops, projectors, microphones, speakers, digital graphic boards.

Q4 2024 - Curriculum transformation and production of educational material for digital skills and STEM methodology for 120 school subjects.

Q2 2026 - At least 675 (out of which 300 primary, 300 secondary general and 75 secondary vocational teachers) teachers per year for 5 years (in total at least 3375 teachers) which accounts for around 32% of all teachers (primary and secondary), have benefitted from In-Service Training & Professional Development on Digital Competences.

- **Reform 5: e-skills Action Plan – Implementation of specific actions**

Challenges

The spread of digital has a significant impact on the structure of the labour market, creating new jobs, and new requirements. It leads to a growing need for more skilled ICT professionals in all sectors of the economy, as well as a need for digital skills for nearly all jobs where ICT complements existing tasks. On average, over 40% of people in the EU still lagged basic digital skills in 2019, while ICT professionals and STEM (Science, Technology, Engineering and Mathematics) professionals are two of the top five skills shortage occupations in Europe. Digital transformation is, therefore, a multidimensional endeavour, to develop and provide digital solutions while at the same time empowering the people to want and be able to use them, ensuring access to necessary infrastructure, building digital capacity and trust in digital and its use.

Cyprus has embarked on its own digital transformation journey, accelerated by the Covid19 pandemic. Despite progress achieved, Cyprus still trails behind its peers in digital maturity and performance as measured by indices such as the EU's Digital Economy and Society Index, where Cyprus ranks 24th out of 28 EU Member States. It is worth noting that in the IMD World Digital Competitiveness Report 2020, Cyprus recorded significant progress, rising to the 40th from the 54th position in 2019, and noting improvements in scores in all 3 parameters: knowledge, technology and future readiness.

As regards digital skills, Cyprus ranks 23rd in the EU on human capital according to the DESI Index, below the EU average. Although Cyprus has made progress since 2018, only 45% of people between 16 and 74 years of age have basic digital skills (below the EU average of 58%). Although it made modest progress compared to 2018, the share of ICT specialists in the workforce is lower than the EU average (2.7% compared to 3.9%). The share of female ICT specialists has risen slightly since 2018 but is far below the EU average of 1.4%. ICT graduates account for just 2.7% of the total. All the above are noted in contrast to the rising demand for ICT specialists in the local market, both to cover the needs of existing firms and of foreign firms considering establishing their corporate base in Cyprus.

Culture and perceptions play a key role in this aspect. It is, therefore, essential to raise awareness on the importance of digital skills and provide incentives for people to pursue them.

All initiatives should cater to the varying levels of digital maturity of each target group, as well as the different roles people are expected to assume within the realm of digital government, enterprises and society. We need to ensure that the right blend of skills, expertise and knowledge can be leveraged to deliver the anticipated value. This entails coordinating several stakeholders from the public and private sector and building a relationship of trust and collaboration. A key challenge across the action plan would be to effectively assess the level of competence of the different target groups, using a specific assessment tool.

Objectives

The main objective of the e-skills Action Plan is the enhancement of digital skills across all population groups (including in public administration, enterprises and society at large), enabling all citizens to best utilise and reap the benefits of digital technologies and facilitate the successful implementation of our digital transformation agenda. Moreover, the aim is to promote STEM education, as well as a larger percentage of female participation in such professions. It represents an integral part of Cyprus' National Digital Strategy and a key element in its vision for "Cyprus to become a fit-for-the-future society and knowledge-based economy enabled by digital and emerging technologies that will drive economic prosperity and competitiveness to position the country as a resilient regional player in the European digital economy". Particular emphasis is

given to diversity, inclusiveness and gender equality, elements that will be addressed in the e-Skills plan as well.

The Digital Society Portfolio is aimed at delivering a user-centred, accessible and inclusive digital society that raises people's digital literacy and encourages them to more actively participate in digital communities. This entails programmes aimed at:

- Inclusiveness, gender equality and accessibility: where all citizens are actively involved and can reap the benefits of digital transformation. Proficiency in digital skills is a prerequisite of a digital society. The aim is to strengthen digital empowerment and digital literacy by providing the tools to improve citizens' digital skills, while at the same time helping them in making informed decisions in the digital environment, such as cyber security considerations, the protection of their data and digital identity, promoting the use of digital skills and tools in the public sector. Citizens and businesses should have the option of easily accessible interaction with public administrations following the digital-by-default approach. Actions comprise programmes such as basic digital skills program, lifelong digital learning programmes, STEM generation programmes, guidance regarding the use of digital public services etc. While designing the programmes and measures gender equality and provision of equal opportunities for all are taken into consideration.
- Creating a culture of lifelong learning, amongst society, educators and students, employers and employees and the public administration. Cultural change is the amongst the more challenging objectives of this strategy. We aim particularly to cultivate an entrepreneurial spirit, infuse an innovative mindset and develop a culture of life-long learning across the whole spectrum of enterprises and society, leading to a more innovative and competitive Cyprus and Europe. Culture is critical to ensuring long-term success and sustainable digital transformation and development.
- Building a strong ICT sector and digitally intensive industries. Cyprus lacks significantly in ICT specialists and digital skills of the workforce, which need to be enhanced to: a) cover the needs of the public sector, b) cover the needs of the private sector c) provide skilled staff, a prerequisite for attracting foreign businesses to establish a corporate base in Cyprus (multiplier effect on the economy, and knowledge spill-overs on ICT issues). Moreover, we need to ensure the availability of future-oriented skills and competencies to ensure that the talent, capacity and expertise required to deliver and sustain digital transformation is identified, acquired and retained. Talent needs to be continuously upskilled and reskilled to match the rapid changes and technology advancement in order to continuously support progress and innovation.
- Facilitating and accelerating digital transformation of public administration, businesses and society. With electronic communications, advanced digital infrastructures and technologies, digitisation of services and processes, as well as the promotion of digital skills, Cyprus will successfully transition to the digital age. The development of digital skills, is a prerequisite for continuously acquiring and applying new knowledge, best utilising the capabilities of digital technologies, and promoting innovation and entrepreneurship.
- Improving digital access. This entails providing the means to all to actively participate in the digital society and economy by offering them all they need to successfully transact in the digital era including infrastructure and device, connectivity, digital identities and access to infrastructures enabling them to carry out e-Payments.
- Improving Cyprus' international competitiveness and ranking in EU and global indices. All measures/reforms proposed will contribute to the improvement of Cyprus' competitiveness in the global arena, and establish the island as a regional ICT hub,

which can serve the needs of the region and contribute to a robust digital European transition. Rankings in all relevant indices, DESI Index, Women in Digital Scoreboard, World Economic Forum's Global Competitiveness Index etc., represent points of reference for investors worldwide, as well as independent assessments of our performance.

Implementation

The project will be implemented by the Deputy Ministry of Research, Innovation and Digital Policy (DMRID) in cooperation with various stakeholders from the public and private sector, such as the Cyprus Productivity Centre, the Human Resource Development Authority of Cyprus, the Cyprus Pedagogical institute, the Cyprus Academy of Public Administration, academia and enterprises, in a complementary way.

The following actions will take place in order for the reform to be implemented:

1. Development of the e-Skills policy framework and action plan, in line with the European Digital Competence Framework and the goals of the European strategy for shaping Europe's digital future.

In formulating the e-Skills action plan the first steps include identifying current and future skills needs, defining target groups (competence levels and needs per target group) and engaging different stakeholders involved, both public and private. A main challenge would be to identify the current competence level of each group, as well as to coordinate all stakeholders under the DMRIDP umbrella to ensure maximum impact and avoid duplication of efforts and initiatives. The plan will consist of various elements and strings of both synchronous and asynchronous learning, such as real-time live or distance educational programmes and an e-learning platform with material for all target groups. Particular emphasis will be placed on certifications for training provided.

2. Design targeted programmes for ICT professionals within the public sector and promote cross-sectoral competencies important for digital transformation and government such as project management, data management, etc.

One of the main deficiencies of the public sector is the lack of specialist skill sets and experience to support digital transformation, both in regard to designing and implementing e-Government and other digital projects, and in regard to using the new IT systems/processes/digital services etc. This prevented the government from identifying its overall deficiencies and expanding its resource pool with domain-specific competencies in areas such as portfolio/program/project management, cybersecurity, data analytics, change management and other parameters that are critical for digital transformation. Culture is a key area to be addressed as regards the public sector, which shows high resistance to change

Measures will be designed to cater for non-specialists, specialists who have assumed digital roles, and leaders who are responsible for digital services, as per below:

- o Basic skills: transferring knowledge and building capacity within the public sector to ensure public sector professionals have the skills needed to be able to use digital public services, regardless of their level of experience and rank.
- o More advanced skills: training public employees in ICT-related positions so that they can transform public services in areas such as digitalisation, program and project management, secure development, cybersecurity, risk management, change management etc. - consider new methodologies etc.

- o Digital leadership: programmes for people in leadership positions related to digital transformation.
3. Design digital skills reskilling/upskilling measures for the current workforce in the private sector, as well as unemployed persons to be able to respond to the needs of the modern labour market.

Measures include upskilling and reskilling programmes, from basic to advanced level, for graduates, professionals (and unemployed) through collaborations with all stakeholders. The main objectives include bridging the digital divide and improving employability opportunities, while at the same time driving growth and innovation. Cyprus' existing workforce does not have the skills necessary to be efficient in the new digital environment and should be upskilled and reskilled to be able to respond to rising demand both for digital skills in general, and for advanced ICT professionals in specific. Training in digital skills will be provided by the Human Resource Development Authority, the Cyprus Productivity Centre, the Cyprus Academy for Public Administration and the Ministry of Education, Culture, Sports and Youth, as appropriate. For specific sectors of the economy the creation of sector-specific skills councils, in the context of the Human Resource Development Authority, would be explored to better identify the necessary measures required to upskill the existing workforce, based on their needs and specificities.

Digital skills will ensure employability for our youth and represent an effective way to tackle rising unemployment, especially in the post-COVID era and in a highly competitive global marketplace.

4. Design stimulating programmes, measures and instruments to strengthen digital fitness at all levels of society, including in remote areas and vulnerable societal groups.

The digital skills of the Cypriot population in its whole are quite low, and especially amongst specific target groups, such as elderly, people in remote areas, NEETs, etc. Therefore, the digital transformation the public administrations and businesses are pursuing, will not have the anticipated value added if its benefits and applications cannot be utilised by all.

Measures will be designed in two directions:

- o Basic Digital Skills: to equip every citizen with the skills required to confidently interact with the digital government, manage their information and communications (receive email, use chats etc.), transact digitally (shopping and paying things online) and stay safe online (through basic IT literacy and cybersecurity skills).
 - o Lifelong Digital Skills: to enable every citizen to digitally upskill throughout their lives, regardless of their level (beginner to advanced) by offering content pitched at different audiences (kids, teens, seniors etc.) and focused on a variety of digital topics (from non-specialised to deeply-specialised).
5. Development of a communication strategy to promote life-long learning and a digital culture, including events, competitions promoting digital skills, STEM, innovation and entrepreneurship – utilise e-Skills Ambassadors throughout the country.

The main goal is to create a society that embraces and demands change and digital transformation. The strategy will aim at cultural change by building awareness of the value of digital transformation and ensuring engagement in measures proposed and providing opportunities and incentives for life-long learning throughout society.

6. Investment in digital infrastructure (equipment, connectivity, etc.) to support the provision of digital learning and skills across society (academic institutions, enterprises, public bodies, elderly caring homes etc.).

Through the above investment we aim to create an accessible digital society and economy (in line with the strategic objectives of our National Broadband plan for 2025, which includes the Gigabit connectivity for all main socio-economic drivers, the access to internet connectivity offering a download speed of at least 100Mbps in all premises in organised communities, the 5G coverage with a download speed of at least 100 Mbps for 100% of the population and the internet connection of the 70% of households with a download speed of at least 100Mbps (Component 4.1 relevant). The key challenge in this regard would be to identify needs and pursue collaborations, e.g. with telecoms providers, to ensure implementation. Infrastructure in schools is an important element of this investment, both in terms of connectivity, ICT equipment (hardware and software) both within school premises and for tele-education purposes. It also includes ICT infrastructure upgrades in government and public bodies, as well as societal functions such as elderly homes.

7. Development of an e-learning platform with educational material addressing all above needs and objectives, accessible to all target groups. The main objective is to create a dynamic, easy to use and well-accessible e-learning platform, with a self-assessment competence tool, key content material on digital skills and cross-sectoral competences such as project management, as well as an index of all available programmes for digital skills from all different stakeholders with the possibility of citizens' enrolment in the programmes. Content should be based on specific standards (e.g. ECDL program) and lead to certification. One of the main challenges related to this endeavour would be to choose appropriate content that fits all requirements of different target groups. The most important challenge, though, would be to continuously enrich and maintain updated material at all times. This requires great levels of collaboration amongst different stakeholders.

As regards reforms and investments concerning primary and secondary education initiatives, actions proposed will be implemented under the relevant Reform 4: "Digital transformation of school units with the aim of enhancing digital skills and skills related to STEM education" above.

State Aid

State-aid compliance will be examined in relation to the provision of training of employees in enterprises (public and private) or self-employed.

Target population

Public and wider public sector employees, private sector (targeted programmes per industry and specific programmes for ICT professions) and society level (elderly, vulnerable groups, unemployed, etc.).

Complementarity with other EU funds

Trainings for public employees are covered under the ESF in the context of the previous programming period with implementing authority the Cyprus Academy of Public Administration. ESF+ programming does not include exclusive training programmes for e-skills.

Timeline

Q4 2021 - National e-Skills Action Plan is adopted by the Council of Ministers, including measures in the following areas:

- Development of an e-learning platform, containing a self-assessment tool for digital fitness, index of all available skilling programmes, and content material on digital skills and cross-sectoral competences.
- Design and deliver programmes and measures for professionals within the public sector such as Project manager, Microsoft tools, cybersecurity, social media, e-collaboration and productivity tools.
- Investment in digital infrastructure

Q4 2025 - Implementation of key measures from the e-Skills Action Plan, including at least:

- Targeted programmes for professionals within the public sector for digital skills and cross-sectoral competencies (e.g. project management) are designed
- Relevant investment in digital infrastructure (laptops, computers etc.)
- One e-learning platform with educational material is provided to include courses offered by educational institutions
- Communication strategy is implemented through funded events etc.

Investments

- **Investment 1: Construction of Two Model Technical Schools**

Challenges

There is a great need for professionals in technical professions that is unfulfilled due to inadequate numbers of enrolled pupils in Secondary Technical and Vocational Education schools. According to the Cyprus Country Report of 2019, the number of enrolled pupils in Secondary Technical and Vocational Education schools is significantly lower compared to the European average (16.7% compared to 49.3% in 2018).

Most current technical schools that are located in urban areas operate in full capacity and as a result a number of interested pupils are turned away from enrolling. According to the most current data from the Department of Secondary Technical and Vocational Education, 100-120 pupils are denied access to technical education. This disparity can be addressed by providing more access opportunities to enrol in Secondary Technical and Vocational Education schools by constructing high quality technical schools in areas of demand.

Objectives

The proposed investment aims to improve the opportunities for secondary education pupils to enrol in Secondary Technical and Vocational Education schools and acquire necessary knowledge and skills required in the ever-changing labour market. For young persons to compete, they must acquire relevant fundamental educational and vocational credentials.

Because of the limited number of technical schools in Cyprus, there is very limited flexibility in designing and offering new programmes based on labour market needs. More and newer technical schools will increase the capacity to offer new programmes in demand (marine studies, biological cultivations etc.) through the upgraded infrastructure in modern buildings.

Most current technical schools are situated in urban areas and as a result, secondary education pupils living in suburban areas lack the opportunity to enrol in technical education because of

time and financial constraints. The construction of technical schools in highly populated suburban areas aims to moderate this problem.

Lastly, technical schools in Cyprus operate as all day schools and serve as host schools to a number of other programmes (Evening Schools of Technical and Vocational Education, the Public School of Higher Vocational Education and Training known as PSIVET, the Apprenticeship System and the Lifelong Learning Programmes known as Evening Classes of Technical Schools) that provide ample professional opportunities to young adults or experienced professionals in order to acquire or improve their current skill set. As a result, more technical schools will also result in more and better training and employment opportunities for the society in general.

Implementation

The implementation of the investment will be carried out by the Department of Technical Services in cooperation with the Department of Secondary Technical and Vocational Education. The Department of Technical Services has great experience in architectural, structural, electrical and mechanical studies, the implementation and supervision of construction projects and material control, upgrading of school building structures, surveys and various construction projects. Blueprints (architectural designs) for the construction of New Limassol Technical School are almost completed. The architectural designs for the New Larnaca Technical School are now in progress.

The proposed investment includes the construction of two new technical schools, one in Limassol (in replacement of current A' Technical School) and one in Larnaca (in replacement of Agios Lazaros Technical School). The replacement of the two current technical schools is absolutely essential because at their current state the schools cannot adequately serve their educational purposes and they offer minimum flexibility in designing and offering new programmes of study. It is imperative that new upgraded schools must be constructed so that technical and vocational education has the means and capacity for improvement and evolution.

It is expected that the two schools will serve a large number of enrolled pupils and other professionals or adults as indicated in the Table that follows. All schools will feature teaching rooms, labs, multipurpose halls, sports facilities, staff and management rooms.

<i>Proposed Technical School</i>	<i>Number of persons served</i>
<i>New Limassol Technical School</i>	<ul style="list-style-type: none"> • <i>600 pupils enrolled in Technical Education.</i> • <i>100 pupils enrolled in Apprenticeship System.</i> • <i>100 pupils enrolled in Evening Schools of Technical Education</i> • <i>50 students in Public School of Higher Vocational Education and Training (PSIVET)</i>
<i>New Larnaca Technical School</i>	<ul style="list-style-type: none"> • <i>500 pupils enrolled in Technical Education.</i> • <i>100 pupils enrolled in Apprenticeship System.</i> • <i>100 pupils enrolled in Evening Schools of Technical Education</i> • <i>50 students in Public School of Higher Vocational Education and Training (PSIVET)</i>

State Aid

Not applicable.

Target population

Secondary education pupils who are interested in enrolling in programmes of studies in technical education and young professionals who seek to improve their professional knowledge and skills and thus improve their chances of employment in the labour market.

Complementarity with other EU funds

ESF+ will support the further Development of Technical and Vocational Education and Training (VET) in Cyprus. The ESF+ intervention aims to increase the attractiveness and improve the quality and the efficiency of the VET system. Within this framework, existing curricula will be updated, and new curricula will be developed. Training programmes will be offered at all levels (secondary, post-secondary, apprenticeships) with a special targeting to the low skilled student and adult population in order to improve their knowledge, skills and eventually to sustain their employability / entry in the labour market. The project will be designed and implemented according to the EC's Recommendation on VET, the new Skills Agenda and will promote equal opportunities for all.

Timeline

It is estimated that the construction of the new Technical Schools will start in 2022 and be completed by Q2 2026:

Q2 2022 - Architectural designs, other technical and environmental studies and tender specification documents for the construction contracts expected to be completed.

Q4 2022 - Signing of two contracts for the construction of two Technical Schools in Limassol and Larnaca and issue of construction initiation order by the project Engineers in line with the DNSH principle.

Q2 2026 - Completion of construction of two Technical Schools in Limassol and Larnaca and issue of taking over certificates.

Schools fully operational from start of school year **2026-2027**.

• **Investment 2: Skilling, Reskilling and Upskilling**

Challenges

Cyprus's labour market is characterised by skill shortages and a large digital and entrepreneurship skills gap. More specifically Cyprus is facing the following challenges:

With respect to digital skills:

Cyprus performance in digital maturity is low as measured by the EU's Digital Economy and Society Index (DESI). Cyprus ranks 24th out of the 28 EU Member States in the overall DESI index and 23rd on the Human capital component.⁵⁷

The level of basic digital skills remains below the EU average though Cyprus has made progress since 2018. Only 45% of people between 16 and 74 years of age have at least basic digital skills (against the EU average of 58%). Almost an eighth of Cypriots (13% compared to 9% EU Ave) have never used the internet, and half lack basic digital skills. Although it made modest progress compared to 2018, the share of ICT specialists in the workforce is lower than the EU average (2.7% compared to 3.9%). The share of female ICT specialists has risen slightly since

⁵⁷ Digital Economy and Society Index (DESI) 2020 Cyprus

2018 but is far below the EU average of 1.4%. ICT graduates account for 2.7% of the total.

Cyprus ranks 18th in the EU on digital public services, below the EU average. Although overall Cyprus made slight improvements, progress was below the EU average. Besides the efforts made to improve and extend Cyprus' digital public services, demand side is weak. The number of Cypriot e-government users fell since 2018, at 51% (against the EU average of 67%) of internet users submitting filled forms in 2019.

With respect to skills related to green economy:

Total employment in the sectors of economic activity with participation in the green economy of Cyprus during the period 2017-2027 is forecasted to exhibit an upward trend.⁵⁸ Most employed persons in the green economic sectors will work in the professional, scientific and technical activities sector with their number exhibiting a significant upward trend. Over one out of three employed persons in the green economy will be employed in this sector, which also exhibits the largest annual total employment demand with 1.476 persons during the period 2017-2027.

Construction is the second largest green economic sector, also exhibiting a significant upward trend. The sector is gradually recovering, the forecast being that one out of five employed persons of the green economy will be working in this sector with the annual total employment demand reaching 649 persons.

Regarding the occupations with participation in the green economy, the majority of the employed will work in the occupational category of Technicians. Specifically, their number will increase from 20.636 persons in 2017 to 24.643 persons in 2027 (33.7% of total employment) registering an increase of 19.4%.

Equally important is the employment in the occupational category of Professionals where their number will increase from 16.957 persons in 2017 to 21.661 persons in 2027 (29.6% of total employment) exhibiting the largest percentage increase (27.7%) of the period 2017-2027.

Several of the identified green skills are new skills that relate to new green technologies, environmental legislation and environmental issues that require a high degree of specialisation. However, the majority of the identified green skills are existing skills which have to be adapted to the needs of the green economy and are considered as indispensable for the development of a greener economy, such as project management, strategic planning, entrepreneurial skills, processes optimisation, personnel management and quality management.

With respect to skills related to blue economy:

Total employment in the blue economic sectors of Cyprus during the period 2016-2026 is forecasted to exhibit an upward trend.⁵⁹ As a result, in 2026, 40.518 persons or around 1 out of 10 employed persons will work in the blue economy.

Most employed persons in the blue economic sectors (eight out of ten) will continue to work in Maritime and coastal tourism showing a significant upward trend. This sector will exhibit the highest total employment demand with 1.615 persons or 5.6% per year during the period 2016-2026 which corresponds to 85% of total employment demand of the blue economic sectors. The second biggest blue economic sector, also exhibiting a significant upward trend, is Maritime transport with one out of six employed persons of the blue economy. Total employment demand will reach 253 persons or 4.3% per year during the period 2016-2026 (13% of total employment demand of the blue economic sectors). These trends are related to the

⁵⁸ Identification of Green Skill Needs In The Cyprus Economy 2 0 1 7 - 2 0 2 7, Human Resource Development Authority, 2018

⁵⁹ Identification of Blue Skill Needs in The Cyprus Economy 2 0 1 6 - 2 0 2 6, Human Resource Development Authority, 2016

strategic objective of Cyprus for further promotion of merchant shipping as well as the pursuit for exploiting hydrocarbon deposits in the Exclusive Economic Zone of the Republic of Cyprus.

With respect to entrepreneurship:

As noted in the 2020 Country Report for Cyprus, progress has been made regarding strengthening entrepreneurship in the country however actions must be intensified. According to the National Report for 2018 – 2019 from General Entrepreneurial Monitoring, the population's confidence with respect to the capabilities to initiate entrepreneurial activity has been reduced across the years whereas fear of failure remains remarkably high as approximately one in two Cypriots fear failure with regards to entrepreneurial activity. This has a direct impact on Cyprus' Total Early-Stage Entrepreneurial Activity (TEA) whereas the gender gap with regards to Cyprus' TEA persists across the years.

Furthermore, TEA entrepreneurs in Cyprus are opportunity-driven rather than necessity-driven. Most of TEA is recorded in Wholesale and Retail sectors (45.4%), whereas rapidly growing sectors with strong innovation potential in globalised marketplaces, like ICT, renewable energy and intelligent manufacturing, have a modest contribution to TEA. These can be a source of concern for the future of economic competitiveness and job creation in dynamic economic sectors.

Objectives

The main objectives of this investment are:

- To strengthen the digital skills of Cypriot workforce in line with e-skills action plan to be developed by the Deputy Ministry of Research, Innovation and Digital policy (DMRID). This will translate to higher productivity of enterprises through among others an increase of the use of e-government services and digital transactions.
- To tackle digital exclusion among older people by improving their digital skills and building their confidence in using technology.
- The acquisition and continuous upgrade and enhancement of the necessary knowledge, basic and specialised skills, by the persons employed in green sectors of the economy and the unemployed wishing to enter into occupations of the green economy as the prerequisite for the achievement of the goal for transition to a green economy.
- The provision of specialised knowledge and skills to the persons employed in blue occupations or to unemployed persons wishing to enter these occupations. Priority will be given to occupations in the maritime transport, merchant shipping, fishing and aquaculture, and maritime and coastal tourism.
- To promote of entrepreneurship by helping the unemployed that are interested in starting a new business to acquire a variety of skills and knowledge that are necessary for new entrepreneurs and by cultivating the spirit of innovation and entrepreneurship among the unemployed with special emphasis on unemployed women.

Implementation

This Investment consists of the following actions:

- (a) Provision of training for strengthening digital skills of the employed and the unemployed
- (b) Provision of training for strengthening green skills of the employed and the unemployed
- (c) Provision of training for strengthening blue skills of the employed and the unemployed

- (d) Entrepreneurship training for the unemployed
- (e) Provision of training for strengthening digital skills of people over 55.

The provision of training for strengthening digital skills and skills related to the green and blue economy and entrepreneurship will be achieved through subsidy schemes targeting training providers to be developed in consultation with Social Partners and other stakeholders and administered by the Human Resource Development Authority (HRDA). The training programmes on digital skills for the elderly will be administered by the Cyprus Productivity Centre (CPC). Training in digital skills will be in line with the e-skills action plan to be developed by the Deputy Ministry of Research, Innovation and Digital policy (DMRID). HRDA and CPC will cooperate with DMRID for this matter.

The proposed training actions under ESF+ and under RRP will both be handled by the HRDA and thus overlapping will be avoided. Under ESF+ the HRDA will propose the development and promotion of individual learning accounts (ILA) to promote lifelong learning and better cover the training needs in the economy. Furthermore, training programmes and placements for acquiring job experience will be provided targeting the NEETs. This way complementarity between the two actions will be ensured.

The training programmes will be available all year round and will cover urban and rural areas in Cyprus.

The training programmes will be in line with skills forecasts carried out by the HRDA Research and Planning Directorate and in close cooperation of the Deputy Ministry of Research, Innovation and Digital Policy. Continuous feedback will be provided regarding the programme participation and progress to ensure successful implementation. The HRDA has in place a comprehensive system for evaluating the impact of its activities. Evaluation studies are conducted on a continuous basis regarding the impact of the HRDA schemes on the participants. All participants of the project will be required to complete an online questionnaire upon successful completion of their training programme as well as 6 months later through telephone interviews.

State Aid

Training for working people constitutes state aid to the enterprises which will be provided under the De-Minimis Regulation.

Target population

A wide range of training programmes will be available to the Cypriot workforce. The same programmes will be provided to Public and Private sector employees, the self-employed and the unemployed. Specific targets have been set for participation of the unemployed.

Timeline

Q4 2022 - Launching of Training Programmes for digital skills, skills related to blue and green economy, Entrepreneurship training for unemployed and inactive people and Training for people over 55.

Q4 2024 - Completion of trainings for at least 11.500 participants in programmes for digital skills, skills related to blue and green economy, entrepreneurship programmes for unemployed and inactive people and training programmes for people over 55.

Q4 2025 - Completion of trainings for at least 25.600 participants in programmes for digital skills, skills related to blue and green economy, entrepreneurship programmes for unemployed and inactive people and training programmes for people over 55.

12.4 Open strategic autonomy and security issues

This component does not include any measures relating to open strategic autonomy or security issues.

12.5 Cross border and multi-country projects

This component does not include cross-border or multi-country measures.

12.6 Green dimension of the component

The measures under this component will ensure the continuous adjustment of skills of the labour force and provide the right skills to accompany the green transition. Under Investment 2, training for strengthening green skills will be provided. Several of the identified green skills needs are new skills that relate to new green technologies, environmental legislation and environmental issues that require a high degree of specialisation. However, the majority of the identified green skills are existing skills which have to be adapted to the needs of the green economy and are considered as indispensable for the development of a greener economy. In addition, demand for digital skills is increasing in the greening industries as well as in society. ICT and STEM professionals are also in high demand in the greening energy sector. Main human resource-related challenges in energy include the need to reskill the current workforce and the ageing of the workforce in combination with the need for skills transfer. The development of industry-specific knowledge will contribute to the successful green transition.

12.7 Digital dimension of the component

The measures under this component will contribute significantly to the digital transition of the educational system and equip students with 21st century skills. They will provide the necessary infrastructure (network, ICT equipment etc.) as well as the creation of a platform for a secure distance learning environment. The measures will create the necessary environment and culture regarding distance learning and will enhance digital skills in schools (students, teachers, and administrative staff) and facilitate distance/blended learning-infrastructure, training and methodology. They will also facilitate the transition of the educational system into the digital era through the development of an online platform/portal for the new teacher and school evaluation system. They will also help identify the skills needed in the labour market, including the extent to which emphasis should be made on digital skills. Furthermore, the skills needed will form the basis of the reform and development of new curricula/learning materials and programmes of study in accordance with the labour market needs. All these will ultimately benefit the growth of the economy.

The reforms and investments are in line with the recommendations in the “Digital Strategy for Cyprus”, the “Cyprus Industrial Strategy Policy”, the “Cyprus National Reform Programme”, the “Annual Sustainable Growth Strategy 2021” and take into account the “Country Specific Recommendations” and the results of the “Digital Economy and Society Index (DESI) 2020” for Cyprus. The aim is to strengthen digital literacy competencies of all Cypriot citizens. The initiatives to be undertaken will support actions primarily concerning private and public sector employees, unemployed, young people, people in remote areas and vulnerable groups. Special emphasis will be given to digitally illiterate people and Information and Communications Technologies (ICT) specialists. In addition, these reforms will contribute to highlighting the benefits of using available e-government services, using digital technologies, building trust in the use of digital transactions, and developing a digital, green and blue culture.

High levels of digital skills are a precondition to support the digitalisation of the economy by increasing its productivity and strengthening its competitiveness, with a direct impact and multiple gains in the educational system, public and private sector. Additionally, greater investment in digital equipment is a significant factor for the improvement of digital capacity.

Digital knowledge is a requirement in meeting the needs of a growing business and a robust public administration in a digital world. It is, therefore, imperative to best utilise digital skills as an enabler and facilitator of the digital and the green transitions.

The digital transition is supported by the reforms and investments in this component, with the digital coefficient being 100% for the majority of these, specifically Reform 2: A new teacher and evaluation system, Reform 4: Digital transformation of school units with the aim of enhancing digital skills and skills related to STEM education, Reform 5: e-skills Action Plan - implementation of specific actions, as well as specific parts of Investment 2: Skilling, reskilling and upskilling.

12.8 Do no significant harm

In all measures included in this component that foresee construction works and purchase of new equipment, machinery, vehicles etc., all procurement procedures will require compliance with the DNSH principle as explained in detail in the separate DNSH assessment of the corresponding measure. This will apply both for investments in the public sector and for financial support schemes to the private sector.

See separate assessment performed on this area included as ANNEX 3 - Assessment of the compliance of the Cyprus Recovery and Resilience Plan with the 'Do No Significant Harm' Principle.

12.9 Milestones, targets and timeline

The milestones and targets for the investments/reforms of this component are presented in the attached table.

12.10 Financing and costs

The cost for each milestone and target is presented in the attached table.

12.11 Loan request justification (if applicable)

Not applicable.

**Policy Axis 5 Labour market, social protection,
education and human capital**

**COMPONENT 5.2 Labour market, social protection,
social welfare and inclusion**

13. COMPONENT 5.2 Labour market, social protection, social welfare and inclusion

13.1 Description of the component

Policy area/domain: 5.2 Labour market, social protection, social welfare and inclusion

Objectives:

This Component consists of a module of reforms and investments to address Cyprus' weaknesses in the areas of social protection, social inclusion, labour market and early childhood education and care. Moreover, the component aims to mitigate the adverse effects of the pandemic on the most vulnerable groups of the population.

In particular, the Government will proceed to a Reform of the Social Insurance System (SIS) in order to enhance social protection for all regardless of the type and duration of employment by extending and improving cover of various benefits. It will also simplify SIS legislation and promote flexible forms of employment by establishing new legislation for telework. The operational performance of Public Employment Service (PES) will be improved in order to provide better service to the unemployed and to employers. The Government will also provide incentives for employment of young people Not in Employment, Education or Training (NEETs), enhance outreach activities for NEETs and facilitate the integration of young registered unemployed in the labour market by promoting their coaching and career guidance through effective co-operation with academic institutions and training centres.

In the area of childhood education and care the government will invest in the expansion of the availability of affordable childcare centres for children aged 0 -3 years and 8 months. Apart from the benefits of Early Childhood Education and Care on children's development path and learning outcomes (knowledge, skills and competences), this reform will enable the entry of additional members of the population in the labour market, particularly women with children, will contribute to gender equality, to the increase of the fertility rate and to the reduction of the risk of poverty.

Through specific investments included in this component the government aims to increase the infrastructure capacity of Social Welfare Services to meet the hosting and care needs of unaccompanied minors and other children under the guardianship of the Director of the Social Welfare Services, to establish the infrastructure needed for the provision of services to adolescents with serious conduct issues and to provide persons with disabilities and people in need of long term care such as the elderly with suitable, comfortable, accessible, family-type homes in the community to live with safety, dignity and quality of life.

In addition, through the construction of two Special Education Schools the aim is to strengthen social inclusion by improving the school environment for students with special educational needs and by ensuring that the adverse effects of the pandemic will be mitigated on one of the most vulnerable groups of students.

Reforms and investments:

The reforms and investments included in the component contribute to addressing the Country Specific Recommendations 2 and 4 of 2020 and 1 and 3 of 2019 respectively.

Reforms:

- Reform 1: Reform of the Social Insurance System and Restructuring of the Social Insurance Services

- Reform 2: Flexible Work Arrangements in the Form of Telework

Investments:

- Investment 1: Improving the Effectiveness of the Department of Labour and Public Employment Services and reinforcing support for young people
- Investment 2: Establishment of Multifunctional Centres and Childcare Centres
- Investment 3: Establishment of home structures for children, adolescent with conduct disorders, persons with disabilities and people in need of long-term care (LTC)
- Investment 4: Child Centres in Municipalities
- Investment 5: Construction of Two Model Special Education Schools

Flagship initiatives: Modernise, Reskill and Upskill

Total estimated budget to be funded through the RRP: €78,9 mln

13.2 Main challenges and objectives

Main challenges

The main challenges can be summarised as follows:

With respect to social protection:

- Self-employed people and people working with new forms of employment such as zero-hour contract workers and digital platform workers do not enjoy the same protection as regular employees.
- The general government expenditure on Social Protection is below EU average (12.4% of GDP compared to 19.3%).
- The Social Insurance Services are characterised by substantial delays in application processing and updating of insurance records, inadequate response to citizens' request for information, lack of specialised skills among the existing personnel, limited quality control mechanisms, high administrative cost, duplication of effort and significant error and fraud risk.

With respect to flexible forms of employment:

- There is no legislation regulating flexible working arrangements in the form of teleworking that would facilitate labour market re-entry of the high share of inactive women due to caring responsibilities and support workers with unforeseen caring responsibilities for children and other dependents.

With respect to the labour market:

- The unemployment rate (15+ years old) increased to 7.6% in 2020 from 7.1% in 2019
- Youth unemployment rate (15-24years old) increased to 18.2% in 2020 from 16.6% in 2019
- The young people Not in Employment, Education or Training (NEET) rate for those aged 15-24, in 2019, was 13.7%, while the unemployed NEETs accounted for 5.4% of the population aged 15-24 and 8.3% were inactive and not in education or training. The NEET rate for those aged 15-29 was 14.1% in 2019 above the EU27 Average of 12.6%.

With respect to social inclusion, social welfare and early childhood education:

- The proportion of people at risk of poverty or social exclusion (AROPE) and of material and social deprivation is declining but still above the EU average (22,3% vs 20,1) in 2019, whereas the at risk of poverty (AROP) rate was 14,7%, below the EU average of 16.5% (2019);
- According to the Cyprus Country Report published in February 2020 early childhood education and care gap is higher for children under the age of three. While 92% of children aged four to six were enrolled in early childhood education and care (ECEC) in 2017 (EU average 95.4%), in 2018 31.4% of children under the age of three participated in ECEC, below the EU average of 35.1% and the Barcelona target (33%). According to the same report, Cyprus relies heavily on informal settings or private institutions.
- The investment on social protection for families and children, as a proportion of GDP, is comparatively low at 1.3% Vs EU 2.5% in 2016
- Despite the measures taken the number of unaccompanied minors entering the Republic of Cyprus exceeds any relevant appraisal, due to the increased migration flows. The number of unaccompanied minors entering the Republic of Cyprus each year has increased from 114 in 2015 to 535 in 2019 and today Cyprus faces a serious problem since the structures and programmes currently operating to serve them (4 homes for 24-hour care and a programme of Semi-dependent living) are overloaded.
- The existing structures operated by the Social Welfare Services cannot serve individually the serious conduct issues of minors.
- De-institutionalisation and supported living are a priority in the framework of the Cyprus National Disability Strategy 2018-2028 and Action Plans 2018-2020 and 2021-2023, the European Strategy for the Rights of Persons with Disabilities 2021-2030 and the UN Convention for the Rights of Persons with Disabilities. Supported living enables persons with disabilities – mainly persons with intellectual disability and autism – to enjoy their rights to live in the community, away from institutionalisation and social exclusion. One of the main challenges faced to operate supported community-based living programmes is the finding of proper houses in terms of size, location, accessibility and adjustability to the specific needs of persons with disabilities.
- According to the latest Eurostat projections, the Cyprus old-age dependency ratio, i.e., the ratio of the number of people aged 65 and over to those aged 20-64, which provides a demographic measure of population ageing, is projected to increase continuously from 26.2% in 2019 to 50.7% in 2070. In other words, in 2070, it is expected to have approximately two working-age people for every person aged 65 and over.
- Total long-term care (LTC) expenditure in Cyprus accounts for only 0.3% of GDP, which is far from the EU average, which is 1.6%. At the same time, only 21% of the dependent population in Cyprus receives LTC services, while the EU average is close to 55%.

Objectives

The Reforms and Investments of this component complement the measures proposed for co-financing under ESF+ and aim at improving social protection and social cohesion. In particular, the major objectives can be summarised below:

- To provide access to social protection for all regardless of the type and duration of employment.

- To Improve operational efficiency and effectiveness of the Social Insurance Services.
- To improve the operational performance of the Public Employment Service (PES).
- To safeguard the successful implementation of employment subsidy schemes through digitalisation of their administration.
- To minimise the risk for young persons Not in Employment, Education or Training (NEETs) to become long-term unemployed.
- To support young persons Not in Employment, Education or Training (NEETs) who are not registered with the PES for their integration in the labour market by promoting outreach activities.
- To facilitate the integration of young registered unemployed in the labour market by promoting their coaching and career guidance through effective co-operations with academic institutions and training centres.
- To enhance the infrastructure for quality care and social development services for children.
- To increase the capacity of Social Welfare Services to meet the hosting and care needs of unaccompanied minors and other children under the guardianship of the Director of the Social Welfare Services.
- To provide the infrastructure for the provision of services to adolescents with serious conduct issues.
- To provide persons with disabilities and people in need of Long-Term Care such as the elderly with suitable, comfortable, accessible, family-type homes in the community to live with safety, dignity and quality of life.

CSRs addressed

Reforms /Investments	Year / CSR Numbers Recitals	Justification
Reform 1: Reform of the Social Insurance System and Restructuring of the Social Insurance Services	CSR 1 2019, CSR 2 2020, CSR 4 2020	The proposed reform aims at enhancing social protection for all.
Reform 2: Flexible Work Arrangements in the Form of Telework	CSR 2 2020	The proposed reform aims at promoting flexible work arrangements in the form of telework
Investment 1: Improving the effectiveness of the Department of Labour and Public Employment Services and reinforcing support for young people	CSR 3 2019, CSR 2 2020	The proposed investment aims at improving the operational performance of the Public Employment Services and supporting young people
Investment 2: Establishment of	CSR 3, 2019 CSR 2 2020	The proposed investment aims at providing affordable quality care and

Multifunctional Centres and Childcare Centres		social development services for children.
Investment 3: Establishment of home structures for children, adolescent with conduct disorders and persons with disabilities and people in need of long-term care (LTC)	CSR 3, 2019 CSR 2 2020	The proposed investment aims at increasing the capacity of Social Welfare Services to meet the hosting and care needs of unaccompanied minors and other children under the guardianship of the Director of the Social Welfare Services, cover the specialised needs of adolescents with conduct issues and provide persons with disabilities and people in need of long term care (LTC) such as the elderly suitable, comfortable, accessible, family-type homes in the community.
Investment 4: Child Centres in Municipalities	CSR 3 2019 CSR 2 2020	The proposed investment aims at promoting economic, social and territorial cohesion, creating new jobs and facilitating labour market entry and re-entry.
Investment 5: Construction of Two Model Special Education Schools	CSR 2 2020	The proposed investment aims at strengthening social inclusion, in particular by improving school environment for students with special educational needs and by ensuring that the adverse effects of the pandemic will be mitigated as regards one of the most vulnerable groups of the students of special educational needs.

13.3 Description of the reforms and investments of the component

Reforms

- **Reform 1: Reform of the Social Insurance System and Restructuring of the Social Insurance Services**

Challenges

The major challenges with respect to the Social Insurance System and the Social Insurance Services are described below:

- The Social Insurance Scheme covers compulsorily every person gainfully occupied in Cyprus either as an employed person or as a self-employed person and is financed by contributions payable by the employers, the insured persons and the State. However self-employed people and people working with new forms of employment such as zero-hour contract workers and digital platform workers do not enjoy the same protection as regular employees.
- The General Social Insurance Scheme (GSIS) dates back to 1957. A major reform was introduced in 1967 and another one in 1980. The Social Insurance legislation went through a process of consolidation in 2010. While amendments of the Social Insurance

legislation were adopted since 2010 the legislation has become quite complex and difficult to be understood by citizens (insured persons and employers).

- The general government expenditure on Social Protection is below EU average (12.4% of GDP compared to 19.3%).
- The Social Insurance Services are currently characterised by substantial delays in application processing and updating of insurance records, inadequate response to citizens' request for information, lack of specialised skills among the existing personnel, limited quality control mechanisms, high administrative cost, duplication of effort, significant error and fraud risk.

The outbreak of the COVID pandemic revealed the magnitude of the above challenges and the necessity for a quick reaction.

Objectives

The aim of the Reform is to tackle the challenges described above in line with the recommendations of the European Commission included in the 2019 and 2020 CSRs (Provide adequate income replacement and access to social protection for all).

The Government is committed on maintaining the national social security system as the most fundamental part of the country's social protection system. Within this framework the Government intends to overhaul the Social insurance legislation in order to enhance social protection for all regardless of the type and duration of employment by extending and improving cover of various benefits such as unemployment benefit, accident at work benefit and occupational disease benefit in particular for the self-employed, people working with contracts or new forms of employment (e.g. platform workers). Simplification of the legislation is also among the objectives.

In line with the reform of the Social Insurance System the government will proceed to reengineer business processes, in order to improve operational efficiency and effectiveness of the Social Security Services. The services will be enriched with the necessary skills and risk analysis and quality control mechanisms will be introduced in order to minimise fraud and error and delivery of fast and accurate service to citizens. The set-up of SIS data analytics will enable policy makers to make informed decisions about the effectiveness of the social security policies and benefits schemes.

Finally, the gradual upgrading of the existing IT Systems to an Integrated Information System is considered essential, in order to securely approach the Reform without disrupting critical business.

Implementation

For the successful implementation of the Reform the Ministry of Labour Welfare and Social Insurance (MLWSI) will seek technical assistance from the ILO, an organisation with vast experience and resources on the subject and will build on best practices from other countries. In addition, it is expected that the MLWSI will secure a group of experts to work on the ground with SIS personnel throughout the duration of the project for all aspects of the Reform (legislative, structural, human resources as well as digitisation).

The Reform will involve a number of actuarial studies, extensive social dialog and social partners' capacity building as well as legal reviews that will lead to the reform of the Social Insurance legislation. The restructuring of the Social Insurance Services will be achieved through business process reengineering, personnel training, set up of data analytics capacity and digitisation of services.

To support this RRP project technical assistance was secured for a comprehensive study on the Reform of SIS along with IT support based on member states best practices (TSI 21CY16 - Support for the modernisation and restructuring of the Social Insurance System - budget €300.000). The Study will entail a) current state analysis of overall organisation and internal processes, interaction with citizens, technological framework, b) needs assessment based on best practices and success stories of Member States in the areas of overall organisation and governance of the SIS, procedures followed and tools used for the analysis of data aimed at the prevention and detection of risks and fraud, IT systems used, electronic services offered to citizens, c) gap analysis and recommendation report.

State Aid

Not applicable.

Target population

The reform of the social insurance legislation will affect all insured employed and self-employed persons claiming benefits as well as all employers in all sectors of the economy. Currently the active contributors, amount to approximately 518.000 (Oct. 2019) and the beneficiaries add up to approximately 305.000 (2019). All companies and self-employed who pay contributions to the Social Insurance Scheme add up to approximately 100.000.

Stakeholder involvement

Consultation with Social Partners is crucial for the successful implementation of the Reform.

Impediments

Political changes are the expected impediments to the reform. The involvement of the Social partners from the beginning will create ownership of the process with a very high probability of consensus by the time the reforms reach parliament.

Timeline

Implementation of the Project will start in 2021.

Q2 2023 - Enactment of the revised Legislation for the Social Security System, which will incorporate the extension of the social security coverage to self-employed / Non-Standard Forms of Employment (NSFE), including platform work.

Q2 2026 - Completion, operation, go-live of the new integrated digital Social Security's System including payment module, benefits administration module, data analytics and interoperability with other systems.

• **Reform 2: Flexible Work Arrangements in the form of Telework**

Challenges

Although the number of people working with some form of telework has increased since the outbreak of the pandemic, in Cyprus currently there is no legislation regulating flexible work arrangements in the form of telework. Such legislation is needed in order to safeguard workers' rights and facilitate labour market re-entry of the high share of inactive women due to caring responsibilities and support workers with unforeseen caring responsibilities for children and other dependants.

Objectives

The aim of this Reform is to tackle the challenges described above in line with the recommendations of the European Commission included in the 2020 CSRs (CSR 2), by promoting

flexible work arrangements in the form of telework which will enhance work-life balance and increase employment of the target groups.

Implementation

The Reform includes the following actions:

- (a) Introduction of new legislation and promotion of collective agreements to regulate telework after the required studies and social dialogue.
- (b) Scheme for subsidised telework. The scheme concerns subsidising part of staff cost as an incentive for employers to hire unemployed persons who will work with telework

Extensive social dialogue will take place before the introduction of the new legislation on telework. The law will entail a definition of telework, description of the economic activities where telework is applicable, the conditions for taking up telework and the rights and obligations of employers and employees.

The scheme for subsidised telework will be administered by the Department of Labour. It will cover all private sector employers, who are willing to employ unemployed people, already registered at PES, for teleworking for at least of 30% of their monthly working hours.

The implementation of the scheme will start with the employment of the unemployed individual and will end after the continuous full employment for 12 consecutive months.

The subsidy will be provided for ten (10) months of employment with the employer's obligation to maintain the employment of the employee for another two (2) months without subsidy.

The scheme is expected to place in employment 450 unemployed individuals.

The nature of the scheme will be temporary since its implementation will follow the enactment of the Law on teleworking and will serve as an incentive to the employers to be more positive in using this flexible form of employment.

State Aid

State aid under the scheme for subsidised telework will be granted under the De Minimis Regulation.

Target population

Unemployed persons who wish to work with telework.

Expected impediments and related solution strategies

Critical to the successful implementation of this reform will be the social partners agreement on telework legislation.

As regards complementarity with other EU funds, ESF+ will finance two (2) subsidy schemes of employment with flexible work arrangements one for youth (15-29 years old NEETS) and one for women. The schemes are planned to be launched after the conclusion of social dialogue and the introduction of the new legal framework on telework that are promoted by this Reform.

Timeline

Q2 2023 - Enactment of the Law for flexible work arrangements in the form of telework

Q3 2025 - Support granted to at least 400 unemployed persons after completing 12 months of employment with at least 30% in telework.

Investments

- **Investment 1: Improving the effectiveness of the Department of Labour and Public Employment Services and reinforcing support for young people**

Challenges

Cyprus labour market situation deteriorated since the outbreak of COVID-19 pandemic especially of vulnerable groups such as young people. More specifically the Cyprus labour market is facing the following challenges:

With respect to employment and unemployment:

According to the labour market indicators (LFS Survey), the labour market situation has deteriorated since the outbreak of COVID-19 pandemic as a result of the economic contraction (negative growth rate of -5.1% in 2020) resulting in an upward trend of unemployment, especially the most vulnerable. The unemployment rate (15+ years old) increased to 7.6% in 2020 from 7.1% in 2019 due to the increase of the male unemployment rate to 7,6% from 6,3% while female unemployment rate decreased to 7.6% from 8,0% respectively. Youth unemployment rate (15-24 years old) increased to 18.2% in 2020 from 16.6% in 2019 due to the increase of male unemployment rate to 24.4% from 19.3% while female unemployment rate decreased to 12.3% from 14.3% respectively.

As regards the employment, there was a slight increase of the number of employed of 0.02% while the employment rate (20-64 years old) dropped to 74.9% in 2020 from 75,7% in 2019 (69.1% in 2020 from 70.1% in 2019 for women and 81.1% in 2020 from 81.7% in 2019 for men). Youth employment rate (15-24 years old) dropped also to 31.3% in 2020 from 32.4% in 2019.

With respect to young persons Not in Employment, Education and Training:

Outreach to young persons Not in Employment, Education or Training (NEETs) continues to be one of the major issues according to European Commissions' assessment, as the Cyprus efforts to strengthen outreach activities by mapping and profiling the population of NEETs and by building partnerships with local actors have been interrupted due to the pandemic. According to DG Employment, the NEET rate for those aged 15-24, in 2019, was 13.7%. The unemployed NEETS accounted for 5.4% of the population aged 15-24 and 8.3% were inactive and not in education or training. The NEET rate for those aged 15-29 was 14.1% in 2019 compared to 12.6% for the EU-27.

With respect to the Department of Labour and PES effectiveness:

According to European Commission' s assessment, the long-term capacity of Public Employment Services (PES) operations is at risk despite the fact that temporarily is enhanced through the recruitment of 30 temporary Employment Counsellors (until the end of 2023 with ESF co-funding). The increased staff capacity of PES upgraded the provision and increased the coverage of individualised counselling to priority groups such as young people Not in Education, Employment or Training, recipients of the Guaranteed Minimum Income and the disabled. The Department of Labour effectiveness and efficiency in implementing the employment subsidy schemes need to be enhanced.

The need for the development and establishment of a Performance Management System has been identified in the Bench learning examination process which is implemented by the European PES Network. According to their assessment, there is a need for a strategic CY PES plan, which will be continuously updated.

Objectives

The main objective of this investment is to tackle the challenges described above in line with the recommendations of the European Commission included in the 2019 and 2020 Country Specific

Recommendations (CSRs) (2019 CSR3.1 “Complete reforms aimed at increasing the effectiveness of the public employment services and reinforce outreach and activation support for young people”, 2020 CSR2.2 “Strengthen public employment services, promote flexible working arrangements and improve the labour-market relevance of education and training”.)

Specific objectives include:

- Safeguard the successful implementation of employment subsidy schemes through digitalisation of their administration.
- Improving the operational performance of PES by developing a Performance Management System.
- Minimising the risk for young persons Not in Employment, Education or Training to become long-term unemployed by strengthening the technical capacity of PES to act proactively through the development of a digitalised tracking system.
- Supporting young persons Not in Employment, Education or Training who are not registered with PES for their integration in the labour market by promoting outreach activities.
- Facilitating the integration of young registered unemployed in the labour market by promoting their coaching and career guidance through effective co-operations with academic institutions and training centres.
- Facilitating the integration of young registered unemployed in the labour market through the implementation of a Subsidy Scheme by providing incentives to employers of the private sector to employ unemployed young persons between 15-29 years of age (NEETs).
- Monitoring the results of the active labour market measures which will be implemented through the Monitoring and Evaluation Digital Tool of ALMPs of the Department of Labour, which is in operation since the beginning of 2019, for policy making purposes (for the design of evidence- based ALMPs).

Implementation

This investment consists of the following actions:

(a) Digitalisation of hiring incentive schemes system.

This action entails the electronic submission of applications for participation in all incentive schemes to be implemented by the Department of Labour and the development of an automated evaluation process to assess all applications requirements safeguarding process' uniformity. In addition, it includes the electronic submission of payment claims by the beneficiaries and the electronic payment procedure for the calculation of subsidies.

(b) Development of a Performance Management System (PMS) for the further strengthening of PES

This action includes the development or the purchase of a software program to support the development of a Performance Management System in an effort to improve operational effectiveness and ensure high levels of service quality.

Key performance indicators will be defined related to both effectiveness and efficiency, quality and organisational structure. Specific targets and procedures will be defined regarding the regularity of meetings, referrals, follow-up and the reporting to be applied for each category of the unemployed. PES staff commitment and continuous involvement (through feedback, cultivating a culture of change, etc.) will be promoted so that agreed

performance indicators and/or other performance measures will ultimately improve the quality of PES services and further enhance and benefit the effectiveness and quality contribution from PES activities. In addition, internal online and telephone surveys will be conducted with both job seekers and employers and general and specific staff seminars will be promoted. The results of the PMS will be evaluated every three years by external auditors for improvement purposes.

(c) Early warning and tracking system for NEETs

This action is the response to the specific Council Recommendation on A Bridge to Jobs - Reinforcing the Youth Guarantee for enabling prevention through tracking and early warning systems⁶⁰. The action includes the development of an electronic system which will be connected with the computerised candidate placement system of PES and accept input from other stakeholders (ex. Local authorities and Ministry of Education, HRDA) in order to identify the unemployed persons aged 15-29 which have completed three months of unemployment and they don't participate in any educational or training program and place them in an intensive individualised counselling program in the new system which will enable their integration in the labour market and prevent them from becoming a long-term NEET or leaving from the PES registry.

(d) Outreach Activities for NEETs

This action is the response to the specific Council Recommendation on A Bridge to Jobs - Reinforcing the Youth Guarantee for promoting outreach activities. This is a crisis related temporary measure which is targeted to support the recovery process given rising NEETs rates due to the pandemic. It includes the set-up and operation of four mobile units for providing counselling, guidance and coaching services from mobile Employment Counsellors across the country in order to support NEETs aged 15-29 and assist their integration in the labour market. The planned steps of this support are the following:

- Provision of counselling and guidance from the mobile Employment Counsellors,
- Participation in the coaching sessions described in (e) below
- After the attendance of 50% of the coaching sessions an electronic device will be provided to the registered NEETs for assisting them to continue the individualised counselling sessions guidance approach with their Employment Counsellor. in order to be referred to the available employment opportunities offered by the Hiring incentive scheme.
- Upon the acceptance of a placement to a subsidised vacancy, a garment set (according to clothing preferences) will be provided

(e) Coaching and Career Guidance for Young Persons

This action is the response to the specific Council Recommendation on A Bridge to Jobs - Reinforcing the Youth Guarantee for promoting counselling and coaching-mentoring. The action includes the provision of coaching and career guidance services to unemployed young persons aged 15-29.

(f) Hiring Incentives scheme for Young Persons aged 15-29 neither in Employment nor in Education or Training (NEETs). The subsidy is payable to the employers

⁶⁰ Council Recommendation of 30 October 2020 on A Bridge to Jobs – Reinforcing the Youth Guarantee and replacing the Council Recommendation of 22 April 2013 on establishing a Youth Guarantee (2020/C 372/01)

This action is the response to the specific Council Recommendation on A Bridge to Jobs - Reinforcing the Youth Guarantee for promoting an employment offer to young unemployed persons.

The implementation of the Hiring Incentives scheme for Young Persons aged 15-29 neither in Employment nor in Education or Training (NEETs), will start with the employment of the young individual from the target group of the subsidy scheme and will end after the continuous full employment for 14 consecutive months. This investment provides incentives to private sector employers to employ unemployed young people between 15-29 years old and the subsidy is payable to the employers. The subsidy will be provided for two (2) months on the job training and for ten (10) months of employment with the employer's obligation to maintain the employment of the employee for another two (2) months without subsidy. The on-the-job training, depending on the job-related needs, may also include digital skills.

For the evaluation of the success of the subsidy scheme a follow up tool, that will monitor the young people to up to a year after the completion of their participation, will be used. In particular, after the digitalisation of the PES'S processes, the role of the employment counsellors will include the coaching and monitoring of the persons placed in an employment subsidy scheme 1-2 year after their placement.

The design of the support scheme ensures that the financed investments respect the 'do no significant harm' principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call(s) for tenders of the scheme.

The actions presented above will be implemented by the Department of Labour with the assistance of the Deputy Ministry of Research, Innovation and Digital Policy, the cooperation of academic institutions and training centres, and the social partners.

State Aid

The Investment does not entail State Aid, except for the Hiring Incentives scheme where the State Aid will be granted under the De Minimis Regulation.

Target population

Registered unemployed and employers, Youth unemployed aged 15-29, inactive people and jobseekers aged 15-29.

Complementarity with other EU funds

Further enhancement and modernisation of the Department of Labour and PES will continue to be supported by the ESF+. Within this framework, the project will cover staff costs, introduction of new tools and services to improve the cooperation and engagement of the employers, the operation of the labour market observatory, the upgrade of the Candidate Placement System (CPS) and the operation of EURES Network.

Timeline

Q2 2022 - Set-up and putting into operation of 2 mobile units for outreach to NEETs.

Q4 2024 - Complete implementation of fully operational platforms for:

- (i) Digitalising the hiring subsidy schemes of the Department of Labour,
- (ii) Developing a Performance Management System for the PES and
- (iii)(3) Developing an Early warning and tracking system for NEETs for the PES.

Q4 2025 - Support provided to employers for hiring at least 600 young people (aged 15-29) not in Employment or in Education or Training (NEETs), for a 12 months employment period, following completion of a two-month subsidised training period (2 months subsidised training and 10-month subsidised employment).

Q2 2026 - Coaching and career guidance for young people offered to at least 5.500 young people not in employment or in education or training (NEETs) through the public employment services.

- **Investment 2: Establishment of Multifunctional Centres and Childcare Centres**

Challenges

Despite efforts to increase the social and economic inclusion of vulnerable groups of the population via access to high-quality social services, Cyprus continues to compare unfavourably with other European countries in many relevant indexes, including poverty and risk of social and economic exclusion (particularly for children); unemployment, (particularly for women and the young) & participation rates for the same groups; More specifically, the main challenges can be summarised as follows:

- manag 95.4%), in 2018 31.4% of children under the age of three participated, below the EU average of 35.1% and the Barcelona target (33%). According to the same report, Cyprus relies heavily on informal settings or private institutions: Out of 349 day-care centres for pre-school age children in 2019, only 4 are public, while 279 are private and 66 are operated by non-governmental organisations/local authorities, the majority of which is being subsidised via a State Aid Scheme.
- Free childcare is mainly limited only to guaranteed minimum income recipients, who also receive subsidisation for private childcare and that, depending on the age of the child, the type and provider of services, monthly fees range from €70 to €400, creating a disproportionate burden for families.
- The Cyprus Country Report 2020, further notes that the investment on social protection for families and children, as a proportion of GDP, is comparatively low at 1.3% Vs EU 2.5% in 2016, and concludes that this low investment is linked to weak support for disadvantaged children in early childhood education and care (ECEC).
- According to the Demographic Statistics of 2019, the total fertility rate was 1,33, which since 1995 remains lower than the replacement level of 2,10 and is lower than the EU average of 1,55.

Objectives

The objectives of this investment are to enhance the availability of quality care and social development infrastructure for children addressing the relevant CSR. This will increase female participation in the labour market, contribute to gender equality, improve employment in general and contribute to the increase of the fertility rate, to the reduction of the risk of poverty as well as the reduction of inequalities.

Implementation

This investment includes the following actions:

(a) Study under the Technical Assistance Instrument (TSI)

In line with Article 7 (2) of the Recovery and Resilience Facility Regulation, Cyprus intends to request technical support under the Technical Support Instrument for the establishment of multifunctional centres and childcare centres.

Specifically, Technical Support will be requested to analyse the state of provision of early childhood education and care services for young children in Cyprus, and to develop recommendations for investment in the sector, and specifically in child centres, with a view to expanding the offer of affordable, accessible, high quality and inclusive services. The analysis would inform the joint development of a framework for the provision of integrated quality services and the monitoring of their quality, involving authorities and stakeholders from the social, education and care sectors. The framework would be piloted in selected early childhood education and care settings.

Indicatively, the additional technical support will be requested to start in Q4/2021 and should end by Q2/2023.

(b) Development of a national strategy on Early Childhood Education and Care and an accompanying action plan considering the recommendations of the completed TSI project.

(c) Establishment of Multifunctional Centres for Children

The objective of the investment is mainly to enhance the availability of quality care infrastructure for children aged 0 - 3 8/12 and school aged children. The project will be implemented through State Aid Schemes targeted at local authorities, and other organisations as an incentive for establishing such centres to serve mainly working parents with children. The project will be implemented in close cooperation with the Commissioner of Children's Rights and after consultations with other stakeholders promoting children's well-being. The State Aid Scheme, based on a need's assessment and viability analysis by the interested authorities, will provide for either the construction or /and purchase of the necessary structures, including renovation of existing structures and purchase of equipment in order to run these Centres in full compliance with the Day Care Centres and Children's Law and Regulations.

(d) Establishment of Childcare Centres

The project involves the establishment of new Childcare Centres in cooperation with Local Authorities, and other organisations for children aged 0 - 3 8/12. The working hours of the Centres will be in accordance with the typical working hours in the private sector in order to meet the needs of working parents. The State Aid Scheme based on a needs assessment and viability analysis by the interested authorities will provide for either the construction or /and purchase of the necessary structures, including renovation of existing structures and purchase of equipment in order to run these Centres in full compliance with the Children's Law and Regulations.

As regards complementarity with other funding sources, the ESF+ Project on the subsidisation of the cost of care services for children aged 0-3 years and 8 months with a budget of 27 mln euro, will contribute to the affordability of the service provision in the Centres above. Furthermore, NGOs and Local Authorities may submit proposals for subsidisation of their running costs, under the current State Aid Scheme funded from National budget, if they fulfil the conditions laid by the Scheme, which will further contribute to the affordability of the care service provision.

Regarding quality criteria the following applies:

- Child Centres for children up to the age of 3 8/12 (Day care nurseries) are regulated by national law and Regulation, which safeguard the minimum quality criteria for the running of Day Care nurseries. The national legislation specifically dictates:
 - The qualifications of the directors and personnel of these services i.e. The director must have a tertiary degree in infancy, childcare, social work, psychology or pedagogy. Every childminder employed in the nursery schools must have a tertiary degree related to the care and psychosocial and psychosocial and spiritual education of the child. Other criteria exist which relate to medical certificates, criminal record etc.
 - The safety of the structures and equipment
 - Provision of meals etc.
 - Ratio of children and space.
 - Ratio of personnel to children. Specifically:
 - 1 childminder: 28 children for 4+years old
 - 1 childminder: 24 children for 3 years old
 - 1 childminder: 16 children for 2+years old
 - 1 childminder: 6 children for up to 2 years old
- Additionally, it must be mentioned that no nursery is allowed to operate unless it is registered by the Social Welfare Services. Before and after registration Social Welfare Services inspect the structures in order to safeguard the enforcement of the legislation.
- After School Day Care Centres for school aged children are regulated by national law and regulations.
- The national legislation dictates for:
 - The qualifications of the directors and personnel of these services
 - Ratio of children and space.
 - Ratio of personnel to children.

Specifically, the Centre must have adequate personnel and other assistants in order to safeguard that children have the best possible care and education. For the running of the centres there must be one person responsible for a group of maximum 25 children. The director must have a tertiary degree in social work or psychology or pedagogy or physical exercise. When the Centre services children with disabilities the number of children may be lower based on the needs of the children and the qualifications of the personnel may be such that can care for their needs. The responsible person for a group

of children must have at least a secondary degree. If the Centre services children with disabilities the responsible person must have tertiary degree according the type of the centre and needs of the children.

Additionally, it must be mentioned that no after-school day centre is allowed to operate unless it is registered by the Social Welfare Services. Before and after registration Social Welfare Services inspect the structures in order to safeguard the enforcement of the legislation.

The establishment of the multifunctional Centres for Children and the Childcare Centres will be achieved through State Aid Schemes targeted at Local Authorities and other organisations which will receive a subsidy for either the construction or /and purchase of the necessary structures, including renovation of existing structures and purchase of equipment in order to run the above Centres. The Schemes will be administered by the Social Welfare Services.

State Aid

The State Aid Schemes for the establishment of the Multifunctional Centres for Children and the Childcare Centres will be covered by the Regulation 360/2012 «on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to de minimise aid granted to undertakings providing services of general economic interest» , and the Commission Decision 2012/21 EU «on the application of Article 106(2) of the Treaty on the Functioning of the European Union to State aid in the form of public service compensation granted to certain undertakings entrusted with the operation of services of general economic interest».

The design of the support scheme ensures that the financed investments respect the 'do no significant harm' principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call(s) for tenders of the scheme.

Target population

Working people with children aged 0 - 3 years and 8 months and school aged children until the age of 13 years.

As regards complementarity with other EU funds, the Investment complements the project proposal for subsidising the cost of care services for children aged 0-3 years and 8 months that is proposed for co-financing under ESF+ with a budget of 27 mln euro and together they will contribute to the enhancement of the availability of quality and affordable child care services addressing the relevant CSR.

Timeline

The implementation of the investment is expected to start during the second semester of 2022 and will be ongoing until 2026.

Q4 2024 - A national strategy on Early Childhood Education and Care and an accompanying Action Plan is adopted by the Council of Ministers considering the recommendations of the TSI Project.

Q4 2024 - At least 10 local authorities / Non-Governmental Organisations supported for establishing or enhancing Multifunctional Centres or Child Centres.

Q2 2026 - At least 27 local authorities / NGOs supported for establishing or enhancing Multifunctional Centres or Child Centres.

- **Investment 3: Establishment of home structures for children, adolescent with conduct disorders, persons with disabilities and people in need of Long-Term Care (LTC)**

Challenges

Despite efforts to increase the social and economic inclusion of vulnerable groups of the population via access to high-quality social services, Cyprus continues to compare unfavourably with other European countries in many relevant indexes, including poverty and risk of social and economic exclusion (particularly for children); unemployment, (particularly for women and the young) & participation rates for the same groups.

More specifically, the main challenges can be summarised as follows:

- Female participation in the labour market is significantly lower than that of men (76,5% vs 87,1% for the age group of 25-54 in 2020).
- Unemployment of women for the age group 25-64 was higher to that of men of the same age group (7,3% vs 6,5% in 2020).
- The proportion of people at risk of poverty or social exclusion (AROPE) and of material and social deprivation is declining but still above the EU average (22,3% vs 20,1%) in 2019, whereas the at risk of poverty (AROP) rate was 14,7%, below the EU average of 16,5% (2019); For persons with disabilities, the AROPE rate is above the EU average (35,7% vs 29,9%).
- The Cyprus Country Report 2020, further notes that the investment on social protection for families and children, as a proportion of GDP, is comparatively low at 1,3% Vs EU 2,5% in 2016, and concludes that this low investment is linked to weak support for disadvantaged children in early childhood education and care (ECEC).
- The Republic of Cyprus, under the Refugee Act 2000-2016, has an obligation to provide care and to safeguard the rights of unaccompanied minors, persons under the age of eighteen, who arrive in the Republic without being accompanied by an adult person responsible for them by law or practice, including minors who cease to be accompanied by an adult, after entering the areas controlled by the Government of the Republic from countries in which there is a war situation, political instability and poverty. In accordance with the provisions of the legislation, the Director of Social Welfare Services acts as the guardian of unaccompanied minors, from their entry into the Republic of Cyprus. As the guardian of unaccompanied minors, the Director of Social Welfare Services has taken various steps to increase the capacities of the Republic of Cyprus to host and support them. Despite the measures taken however, the number of unaccompanied minors entering the Republic of Cyprus exceeds any relevant appraisal, due to the increased migration flows. The number of unaccompanied minors entering the Republic of Cyprus each year has increased from 114 in 2015 to 535 in 2019 (2015:114, 2016:216, 2017:224, 2018: 259, 2019:535, 2020:350, 2021:260). Today Cyprus faces a serious problem since the structures and programmes currently operating to serve them (4 homes for 24-hour care and a programme of Semi-dependent living) are overloaded.
- In addition, adolescents under the legal care of the Director of the Social Welfare Services with particular and complex difficulties are placed in child protection centres operated by of the Social Welfare Services. Identical problems with adolescents also occur in families. The escapes of some children, whether from families or institutions, are one of the issues arising from these difficulties. In recent years, the problems have intensified and become more complex, so it is now evident that the existing structures operated by the Social Welfare Services cannot serve individually the serious conduct issues of minors (issues of substance dependence, delinquency, etc.).

- De-institutionalisation and supported living are a priority in the framework of the Cyprus National Disability Strategy 2018-2028 and Action Plans 2018-2020 and 2021-2023, the European Strategy for the Rights of Persons with Disabilities 2021-2030 and the UN Convention for the Rights of Persons with Disabilities. Supported living enables persons with disabilities – mainly persons with intellectual disability and autism – to enjoy their rights to live in the community, away from institutionalisation and social exclusion. The Department for Social Inclusion of Persons with Disabilities, under the Ministry of Labour, Welfare and Social Insurance already implements programmes of supported living by contracting them out to private agencies who rent houses in cities or communities, employ the necessary staff (carers, personal assistants, rehabilitation professionals etc), form in co-operation with the Department groups up to 5 persons with matching disabilities, needs and preferences and operate the programmes under the close supervision and financing by the Department. One of the main challenges faced to operate such programmes is finding proper houses in terms of size, location, accessibility and adjustability to the specific needs of persons with disabilities.
- According to the Demographic Statistics of 2019, the total fertility rate was 1,33, which since 1995 remains lower than the replacement level of 2,10 and is lower than the EU average of 1,55.
- According to the latest Eurostat projections, the Cyprus old-age dependency ratio, i.e., the ratio of the number of people aged 65 and over to those aged 20-64, which provides a demographic measure of population ageing, is projected to increase continuously from 26,2% in 2019 to 50,7% in 2070. In other words, in 2070, it is expected to have approximately two working-age people for every person aged 65 and over.
- Total long-term care (LTC) expenditure in Cyprus accounts for only 0,3% of GDP, which is far from the EU average, which is 1.6%. At the same time, only 21% of the dependent population in Cyprus receives LTC services, while the EU average is close to 55%.
- Considering the above demographic challenges as well as the currently very low coverage and spending on LTC, it is clear that Cyprus needs to make considerable progress and allocate more resources to adequately meet the LTC needs of its population.

Objectives

The objectives of this investment are:

- to increase the infrastructure capacity of Social Welfare Services to meet the hosting and care needs of unaccompanied minors and other children under the guardianship of the Director of the Social Welfare Services.
- to establish the infrastructure for the provision of services to adolescents with serious conduct issues
- to provide persons with disabilities with suitable, comfortable, accessible, family-type homes in the community to live with safety, dignity and quality of life.
- to establish community-based care centres for people who are in need for long term care.

Implementation

This investment includes the following actions:

(a) Structures for hosting children under the care of the Director of Social Welfare Services

The project aims at the establishment of Small Hosting Units for children under the care of the Director of Social Welfare Services, particularly unaccompanied minors. The project aims at the establishment of:

- o 8 Homes (state and non-governmental) for the 24hour care of children aged 15-18 years, mainly unaccompanied minors, with capacity of 6-20 people per home.
- o 1 Specialised Home for pregnant young girls and young mothers with infants.

The Project promoted by the ESF for the Restructuring of the Social Welfare Services will contribute to the enhancement of the provision of quality, effective services to children under the care of the Director of Social Welfare Services.

(b) Public Structures for hosting children under the care of the Director of Social Welfare Services

The project aims at the creation of:

- o 2 State Homes for children aged 13-18 years. One Home for female children and one Home for male children. Capacity of 10 children each.
- o 1 State Home for children (state) aged 5-12 years. Capacity of 10 children.

(c) Homes and structures for the provision of Daily Services to adolescence with conduct disorders

The action will involve the establishment of Hostels and Day-Care Programmes' infrastructure for minors with conduct disorder issues addressed to boys and girls aged 12-18 years. The hostels will accommodate minors showing symptoms of conduct disorders such as delinquent behaviour, use of addictive substances etc who live in an inappropriate family environment or who are under the care of the Director of Social Welfare Services. The infrastructure will support the day-care programme for providing support, education and treatment services to both the occupants of the hostel and to minors with conduct disorders who live with their guardians. The project will be implemented in cooperation with the Cyprus National Addictions Authority.

(d) New houses to increase the capacity of supported living programmes for persons with disabilities

The action involves the purchase of 5 houses (the infrastructures only) in different cities or communities of Cyprus and their renovation and adjustment according to the needs of the persons with disabilities to be included in supported living programmes. The availability of houses will facilitate and speed up the operation of additional supported living programmes thus offering the opportunity to persons facing high risk for institutionalisation and social exclusion to have their home.

The action is in full complementarity with the project "Creation of supported living homes in the community" financed already by ESF in the programming period 2014-2020 and included also in the new programming period 2021-2027. Through this project the Department for Social Inclusion of Persons with Disabilities assigns through public procurement to agencies in the private sector the operation of family homes for up to 5 persons with disabilities in each home. Seven new homes for persons with intellectual

disabilities have already started their operation by NGO's and private companies since March 2020 and another 4 homes for persons with autism and intellectual disability have been contracted out and are expected to operate until mid-2021. In 2021-2027 the project included the establishment for additional 5 homes for persons with intellectual disability. The cost for renting and adjusting the houses will not be included in the budgeted value of the procurement contract if this will be covered through RRF i.e. the structure of the house will be ready available by the Department and the contractors will have to employ the necessary staff (carers, personal assistants, rehabilitation professionals etc) and run the daily programme of the homes depending on the specific needs and preferences of the persons with disabilities to become home-mates.

In the framework of the National Disability Strategy and the National Disability Action Plans, the Council of Ministers has approved a Scheme called "Inclusion of persons with disabilities in homes/programmes of supported living in the community". Any person with a disability may apply under this scheme and the needs for supported living are assessed and prioritised. In addition, the Department receives referrals by other Departments like the Social Welfare Services or the Mental Health Services to examine cases of persons in need for supported living. Priority is given to persons with intellectual disability. Persons with mental disability and special circumstances (severe behavioural impairments, high risk of danger for themselves or others) which require a 24-hour support by mental health professionals remain under the responsibility of the Mental Health Services. From 100 applications and referrals that the Department received up to date, 32 have been successfully completed and 8 more are in progress"

Through the Disability Action Plans, the above scheme and the co-financed by the ESF project, the government has set the framework and the means for its de-institutionalisation policy for persons with disabilities. The successful operation of homes in the community, away from institutional structures and with the available support services needed, has proven positive change in persons behaviour, expression of their will and preferences, increased daily living skills through training, developing of their personalities, increased opportunities for hobbies, recreation, socialisation, participation in the community and inclusion.

Furthermore, the supported living program have a positive impact on informal carers, usually family members, by alleviating the care burden.

- (e) Establishment of role model community-based care centres for specific groups of people who are in need for Long Term Care (LTC), such as the elderly and adults with conduct disorders due to long-term substance abuse.

This action involves the built of new or the upgrade/renovation of existing LTC infrastructure. Such infrastructure will support the provision of formal integrated care services and other services in living units that foster independent living, inclusion in the community and high-quality care.

The above actions will be implemented as follows:

- (a) Structures for hosting children under the care of the Director of Social Welfare Services: Through state aid scheme targeted at local authorities, NGOs and other organisations.
- (b) Public Structures for hosting children under the care of the Director of Social Welfare Services: Structure acquisition through tender procedure.
- (c) Homes and infrastructure for the provision of Daily Services to adolescence with conduct disorders: Through state aid scheme targeted at local authorities, NGOs and other organisations.

(d) New houses to increase the capacity of supported living programmes for persons with disabilities: Structure acquisition through tender procedure.

(e) Establishment of community-based care centres for people in need of LTC through state aid scheme targeted at local authorities, NGOs and other organisations.

The design of the support schemes ensures that the financed investments respect the 'do no significant harm' principle, as explained in detail in the separate DNSH assessment of this measure. This consideration will be explicitly included in the relevant call(s) for tenders of the scheme.

State Aid

The State Aid Schemes will be covered by the Regulation 360/2012 «on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to de minimise aid granted to undertakings providing services of general economic interest», and the Commission Decision 2012/21 EU «on the application of Article 106(2) of the Treaty on the Functioning of the European Union to State aid in the form of public service compensation granted to certain undertakings entrusted with the operation of services of general economic interest».

Target population

Minors with conduct disorder issues, aged 12-18 years, children under the care of the Director of Social Welfare Services, unaccompanied minors, people with disabilities, people in need of Long-Term Care.

Timeline

The implementation of the investment is expected to start during the second semester of 2021 and will be ongoing until 2026.

Q4 2024 - Purchase and renovation of at least four (4) state structures for children or persons with disabilities (through a public procurement procedure) and provision of support for the establishment or renovation of at least ten (10) homes for children, adolescents with conduct disorders and people in need of Long Term Care (through an aid scheme).

Q2 2026 - Purchase and renovation of at least eight (8) state structures for children or persons with disabilities (through a public procurement procedure) and provision of support for the establishment or renovation of at least twenty (20) home structures for children, adolescents with conduct disorders and people in need for Long Term Care (through an aid scheme).

• **Investment 4: Child Centres in Municipalities**

The project focuses on the development of four Child Centres in four municipalities and aims to offer quality childcare services, facilitate the participation and re-entering of workers with caring responsibilities in the labour market, mitigate the social and economic impact of the crisis and strengthen social protection.

The construction of the Child Care Centre in the Ayios Athanasios Municipality aims to provide contemporary services for children between the ages of 2 and 6 and between the ages of 6 and 12. The construction of the New Public and Community Kindergarten and Nursery School in the Ayia Napa Municipality focuses on families with infants and toddlers from six months old to preschool age. The construction of the Child Care Centre in the Paralimni Municipality aims to meet the growing needs of the community for childcare services and to address the impact of the pandemic on the labour force which is mostly employed in the tourism industry. The Municipality of Yermasoyia focuses on transforming the old primary school into a Multipurpose Centre with a kindergarten, an employment centre for the elderly and a multipurpose room, aiming to enhance social cohesion.

It is noted that Early Childhood and Care (ECEC) in Cyprus is organised in two discrete systems based on the children's age, namely the pre-school and the pre-primary system. The pre-school system involves day nurseries and childminders all of them operating under the remit of the Ministry of Labour, Welfare and Social Insurance. The pre-primary system involves kindergartens operating under the remit of the Ministry of Education, Culture, Sport and Youth. It is also noted that Community day nurseries established and run by local authorities operate on a not-for-profit basis and the fees set are in most cases half the level of the fees that apply in the private sector with priority given to the most vulnerable groups, single parent families, poor and the unemployed.

Challenges

- Limited access to affordable and quality childcare services
- Inactive members of the labour force, particularly women, resulting from the lack of childcare facilities
- Creating an ideal environment for children of all ages
- Designing childcare facilities based on modern standards concerning sustainability, energy efficiency, renewable energy sources and efficient waste management.
- Gender equality and equal opportunities goals for women.

Objectives

- Facilitate the participation and re-entering of workers with caring responsibilities in the labour market
- Promote gender equality
- Create new jobs and mitigating locally the social and economic impact of the crisis
- Strengthen social protection.

(a) Construction of a Child Care Centre in the Ayios Athanasios Municipality

The construction of a Child Care Centre in Ayios Athanasios aims to provide contemporary services to the residents of the municipality and have a direct impact on the care of children and their families as well as to the increase of employability of inactive workforce in the area. Priority will be given to enrolling children with specific socio-economic criteria and coming from a deprived background.

Quality of services will be offered, in priority, to groups at risk of poverty and social exclusion, while it will allow them to (re)-enter into employment, education and/or additional activities towards upskilling their abilities and tacit knowledge.

Implementation

The suggested proposal is characterised by a detailed plan-schedule and systematic planning for its efficient and effective implementation of it. A Tender for the construction works was announced and the bidding process was completed on September 11, 2020.

Target population

The project targets children, single families (including NEETs single mothers), families with short and long-term unemployed members, and/or low-income families, groups at risk of poverty and social exclusion.

(b) New Public and Community Kindergarten and Nursery School in the Ayia Napa Municipality

The 'New Public and Community Kindergarten and Nursery School' in Ayia Napa Municipality, will replace the existing kindergarten and expand the provided services to meet the increasing demand. The project consists of a contemporary school building for infants and toddlers from six months old to preschool age. The proposed building has been designed based on modern standards in accordance with the regulations of the Ministry of Education, Culture, Youth and Sports and will include 12 classrooms, special rooms, offices, kitchen, dining room, bedrooms, storage rooms, courtyard, enclosed room, parking spaces, etc. All spaces are designed to provide comfort and safety, creating an ideal environment for children of all ages.

The school will have a comfortable and state-of-the-art courtyard which will be equipped with eco-friendly toys. The school will also have an indoor multi-purpose space which can operate independently. This space could host cultural events all year round, enriching the cultural events of the Municipality and the Famagusta Province, attracting more foreign and local visitors. The new building will meet modern standards concerning sustainability, energy efficiency, renewable energy sources and efficient waste management.

It is expected that the new structure will cover all needs of ECEC, based on current data and census information. It is not expected to have increased costs as, there are no plans to increase tuition. Currently, children that attend Compulsory Preschool classes (approx. 5 years old) attend for free while there are small charges for childcare that range accordingly for afternoon classes. These charges are determined by the competent Ministry. The project will also include special education for children with learning disabilities.

Implementation

Responsible for the implementation of the project will be the Municipality of Ayia Napa which is governed by a nine-member council (Municipal Council) headed by the Mayor and eight Council Members. The Municipality employs seventy people plus seasonal employees to meet the needs of the Summer Tourist Season. The staff includes two architects and a structural engineer as well as other skilled technicians.

The proposed building will include 12 classrooms, special rooms, offices, kitchen, dining room, bedrooms, storage rooms, courtyard, enclosed room, parking spaces, etc. The school will have a comfortable and state-of-the-art courtyard which will be equipped with eco-friendly toys. It will also have an indoor multi-purpose space which can operate independently.

The project also includes investment in digital equipment to support the provision of digital learning and skills in kindergarten and in fostering the digital skills of teachers and trainers and developing digital pedagogical content. These digital learning and skills are already in practice according to the Ministry of Education, Culture, Sport and Youth's Guidelines and will be also adapted in the context of the operation of the new building.

Target population

Infants and toddlers from six months old to preschool age, parents who participate in the labour market.

(c) Child Care Centre in the Paralimni Municipality

The current Child Care Centre is being temporarily hosted in a single classroom at Paralimni 4th Primary School, provided by the Paralimni School Board to Paralimni Municipality for the purpose of serving the children of workers and others who rely on childcare to work. Yet, this is insufficient to meet the ever-growing need, considering that the existing space is limited and inadequate to meet the high demand which is translated into more than 200 applications per year. The Centre is currently serving just 50 children mainly due to limited funding availability.

Recognising this shortfall, the Municipality of Paralimni is planning for the establishment of a best-practice Child Care Centre, to combat the catastrophic impact the pandemic has caused on the economy which has jeopardised plenty of child care jobs, leaving hundreds of children without access to child care, and plunging parents and employers into turmoil as they continue to juggle work and family responsibilities. As a large-scale tourism industry player, Paralimni opts for a social infrastructure investment that will generate a positive spill-over effect to the economy of the whole Famagusta region. A region where most labour force is employed in the tourism industry and the working hours are not very family-friendly either. A Child Care social centre is essential in offering equal opportunities to vulnerable groups, promoting social inclusion, strengthening the economy by supporting the labour market force and enacting the overall wellbeing of citizens.

Implementation

The Technical Department and the Procurement Office of the Municipality will be working close with the European Relations officer to implement the project in line with the timeline as well as the standards set by the Municipality Council.

The nature of the investment is mainly social, and it is a mid-scale investment with a great outcome for the local economy's efficiency and productivity. It will be built according to bioclimatic architecture and according to the EU standards for green and smart technologies, including RES in public buildings.

Children will have access to ICT and digital methods of learning the cost of which will be covered by national or other European funding programmes. Recycling principles will be part of the educational activities for children through arts and crafts workshops and educational trips.

Target population

The investment clearly targets families in great need for childcare services in order to be able to work, particularly in the tourism industry. This will leverage a positive spill-over to tourism SMEs and hoteliers who are looking for seasonal workers in a period where public schools are closed.

(d) Conversion of the old Primary School in Yermasoyia into a Multipurpose Centre

Through the proposed investment the aim is to transform the old primary school in the Yermasoyia Municipality into a multipurpose centre to include a kindergarten, an employment centre for the elderly and a multipurpose room.

Target population

The old primary school has been leased by the Municipality from the Ministry of Education, Culture, Youth and Sports with the purpose to create a multipurpose enter. All the uses that have been discussed and approved by the Municipal Council to be provided by the multipurpose centre include a kindergarten, an employment centre for the elderly and a multipurpose room. The provision of an integrated package of uses in one building will improve social cohesion through the interaction/contact of people with different characteristics, enhance the effectiveness of social services provided to vulnerable people and groups.

Implementation

The architectural plans have been assigned to private designers who will be responsible for all the steps in order to obtain the necessary permissions from public authorities.

The project concerns the conversion of the old primary school in Yermasoyia into a kindergarten, an employment centre for the elderly and a multipurpose room.

As regards complementarity with other EU funds, in the case where it is not covered by other funds (i.e. integrated approach for urban/local development by ERDF) the establishment and

operation of multifunctional centres for the provision of care services to children with autism in Municipalities may be considered under the ESF+ programming.

Timeline

Q4 2022 - Completion of construction and issue of taking-over certificate of at least 1 child Centre in a municipality.

Q4 2024 - Completion of construction and issue of taking-over certificate of 4 child Centres in municipalities

- **Investment 5: Construction of Two Model Special Education Schools**

Challenges

Although Cyprus has a strong sense of community and comparatively high levels of mutually supportive society, the Covid-19 pandemic has highlighted the importance of social cohesion in overcoming serious crises. This investment aims to strengthen social inclusion, in particular by improving school environment for students with special educational needs and by ensuring that the adverse effects of the pandemic will be mitigated on one of the most vulnerable groups of the students of special educational needs.

Objectives

The proposed investment focuses on improving the school environment for pupils with severe disabilities or other special educational needs and maximising their academic and social development.

Students with mental disability, cerebral palsy and serious behavioural problems attend the Special Education School of Apostolos Loucas. These students need a specific educational environment to facilitate in achieving their educational objectives such as their multifaced development, communication and social skills and independence.

The Red Cross Recovery Special Needs School accommodates students with multiple and severe disabilities that require individualised educational programmes which aim at improving kinetic ability, development of self-care as well as communication and social skills for better life quality. Therefore, special facilities and special technological equipment are necessary to address the fundamental issues of the students (physiotherapy, ergotherapy, hydrotherapy etc.)

Implementation

The Special Education School of Apostolos Loucas and Red Cross Recovery Special Needs School are the only Special Schools in the Limassol district. Both school buildings need to be replaced. They were built between 1979-1984, before the approval of the legislation for anti-seismic upgrading in 1994 and they are currently energy inefficient (corresponding to Energy Performance Certificate (EPC). Moreover, prefabricated classrooms are used on site to satisfy the increasing students' educational needs. What is more important though, is that existing buildings are not fully accessible for all students as they are constructed at different levels. Disabled access facilities such as ramps, elevators are provided to mitigate this problem at some extent.

Their replacement is an investment that will be carried out by the Department of Technical Services in cooperation with the Department of Primary Education.

The Department of Technical Services has great experience in architectural, structural, electrical and mechanical studies, the implementation and supervision of construction projects and material control, upgrading of school building structures, surveys and various construction projects. Blueprints (architectural designs) for the construction of are almost completed. The architectural designs for the Special Education School of Apostolos Loucas and Red Cross Recovery Special Needs School are now in progress.

The proposed investment includes the construction of two Special schools:

- 'Special Education School of Apostolos Loucas' and
- 'Red Cross Recovery Special Needs School'

The above schools will be part of the same project as they will be constructed adjacent to each other and will share the multi-purpose hall as well as a therapeutic indoor swimming pool. The two special schools' buildings, apart from classrooms, will include special rooms for speech therapy and ergotherapy, music rooms, psychology and physiotherapy rooms, laboratories, art and home economics laboratories, panic rooms, outdoor sport facilities

With the construction of the new building, the above two schools will be co-located in a single space that is completely accessible and safe and where all children will have equal opportunities for education and multifaceted development of their potential, thus promoting social cohesion and social justice for all children with special needs in the city and province of Limassol.

Target population

Pupils aged 3 to 21 with severe learning problems, communication or/and behaviour problems as well as other disability that make it more difficult for them to learn than most children of their age. These special educational needs could be addressed by the suitable, comfortable, accessible school environment that facilitates special educational provision.

Timeline

Q1 2022 - Architectural designs, other technical and environmental studies are expected to be completed.

Q4 2022 - Signing of contract for the construction of Apostolos Loucas & Red Cross Special needs school.

Q4 2025 - Completion of construction of Apostolos Loukas & Red Cross Special needs school.

Schools operational by **Q4 2025**.

13.4 Open strategic autonomy and security issues

This component does not include any measures relating to open strategic autonomy or security issues.

13.5 Cross border and multi-country projects

This component does not include cross-border or multi-country projects.

13.6 Green dimension of the component

The investment for a Child Care Centre in Ayios Athanasios is expected to contribute significantly to the green transition through actions such as recycling, tree planting, the use of Energy Class A category equipment, the use of eco-friendly methods and the promotion of future-proof clean technologies like photovoltaics.

The investment for a new public and community kindergarten and nursery school in the Ayia Napa Municipality is expected to contribute to the green transition as the building will meet modern standards concerning sustainability, energy efficiency, renewable energy sources, efficient waste management, pollution prevention and control and will comply with the do no significant harm principle.

13.7 Digital dimension of the component

The reform of the Social Insurance System (SIS) will entail a solution design for a new integrated system, target business and system operating model for the new integrated system and development of data analytics infrastructure in terms of methodologies, tools, models, techniques and IT technologies, fully consistent and integrated with the existing modelling/IT framework deployed at the Ministry of Labour, Welfare and Social Insurance and the Social Insurance Services.

The effectiveness of the Public Employment Services will be achieved through the digitalisation of the hiring incentive schemes system, the development of a Performance Management System and the development of an early warning and tracking system for NEETs.

The New Public and Community Kindergarten and Nursery School in the Ayia Napa Municipality will include investment in digital equipment to support the provision of digital learning and skills in kindergarten and in fostering the digital skills of teachers and trainers and developing digital pedagogical content.

The investment for a Child Care Centre in Paralimni is expected to contribute to the digital transition as all children will have access to ICT and digital methods of learning and to the green transition as the infrastructure will be built according to bioclimatic architecture and according to the EU standards for green and smart technologies, including RES in public buildings. In addition, recycling principles will be part of educational activities for children through arts and crafts workshops and educational trips.

13.8 Do no significant harm

In all measures included in this component that foresee construction works and purchase of new equipment, machinery, vehicles etc., all procurement procedures will require compliance with the DNSH principle as explained in detail in the separate DNSH assessment of the corresponding measure. This will apply both for investments in the public sector and for financial support schemes to the private sector.

See separate assessment performed on this area included as ANNEX 3 - Assessment of the compliance of the Cyprus Recovery and Resilience Plan with the 'Do No Significant Harm' Principle.

13.9 Milestones, targets and timeline

The milestones and targets for the investments/reforms of this component are presented in the attached table.

13.10 Financing and costs

The costs of the milestones/targets of this component are presented in the attached table.

As support for the establishment of multifunctional centres and childcare centres, Cyprus commits to request technical support, which, in line with Art. 7(2) of the RRF Regulation forms part of the cost of the aforementioned measure. Cyprus commits to request this technical support and sign a contribution agreement for this amount with the Commission, in line with Art 7(2) of the TSI Regulation. The total estimated cost for the technical support requested to support the establishment of multifunctional centres and childcare centres is €500.000.

This total cost has been estimated based on similar technical support already supported by the European Commission through the Structural Reform Support Programme, including in Bulgaria (Setting up a national quality framework for early childhood education and care, including indicators and benchmarks).

The key drivers of the cost estimate are:

- i) Comprehensive mapping: €200.000
- ii) Sharing of good practices with other European countries: €30.000
- iii) Stakeholder consultation and co-creation of a quality framework and monitoring system: €140.000
- iv) Piloting in early childhood education and care settings: €90.000
- v) Preparation of recommendations for a reform strategy and an implementation plan: €40.000

13.11 Loan request justification (if applicable)

The following measures will be included in the loan request:

Reform 1: Reform of the Social Insurance System and Restructuring of the Social Insurance Services with a budget of €10 mln.

The reasons for a loan request by Cyprus include the high financial needs in order to mitigate the economic and social impacts of the COVID-19 crisis, the need to enhance social protection for all and the strengthening of social inclusion, in line with CSRs related to the area of social policy (2019: CSR3, 2020: CSR2 and CSR4).

The remaining measures of this Axis will be covered by the Grant element of the Plan.

PART 3

COMPLEMENTARITY AND IMPLEMENTATION OF THE PLAN

PART 3: COMPLEMENTARITY AND IMPLEMENTATION OF THE PLAN

1. Pre-financing request

The Cyprus Recovery and Resilience Plan has a total estimated cost of € 1,233 bln. Cyprus has been allocated a grant from the RRF of € 1,006 bln and therefore in order to cover the investments and reforms included in the RRP is requesting a loan support from the RRF of an amount of €227 mln over and above the grant.

Cyprus according to Article 13 of the Regulation (EU) 2021/241, with the submission of its Recovery and Resilience Plan, is requesting a pre-financing payment of an amount of 13 % of the financial contribution and of the requested loan. This pre-financing is necessary in order to initiate the implementation the investments and reforms in the first years of the Plan.

2. Consistency with other initiatives

The various European tools supporting the economic recovery of Member States should operate in synergy with the Recovery and Resilience Plan (RRP) to maximise their impact. In order to achieve this, coordination mechanisms were established during the designing and development of the reforms and investments to allocate the proposed measures between the various instruments, safeguarding consistency, enhancing synergies and complementarity and avoiding overlaps and double funding.

Below we present the different European initiatives that the RRP is consistent with, how its objectives are channelled in a manner that ensures coherence between them and how the implementation of the envisaged reforms and investments will contribute to the goals of each European initiative.

National Reform Programme

According to Article 17 of the Regulation establishing the Recovery and Resilience Facility (RRF), the RRP shall be consistent with the information included by the Member States in the National Reform Programmes (NRPs) under the European Semester. In this context, the RRP has been developed paying special attention to its alignment with the NRP priorities. To this end, Cyprus prepares both its NRP and the RRP with focus on addressing the Country Specific Recommendations (CSRs) identified in the context of the European Semester cycle, which constitute the backbone of the two documents, ensuring thus the consistency between the NRP and the RRP.

Specifically, aiming to boost jobs, growth and investment, while maintaining sound public finances and preventing or correcting imbalances, the NRP will build on the guidance prepared by the European Commission and endorsed by the Council, on the basis of the economic and social performance during the previous year, the Government's implementation of the previous years' CSRs and strategic priorities, delivering at the same time the priorities set out in the Annual Growth Survey. Similarly, Cyprus has prepared its RRP setting out a coherent package of reforms and investments to be implemented by 2026 addressing the challenges and gaps identified in the European Semester, as reflected in the CSRs for the years 2019 and 2020 adopted by the Council.

Partnership Agreements and Operational Programmes under the Union funds

Cyprus' RRP is aligned with the strategic directions, goals and priorities of the Partnership Agreement (PA) for the Programming Period 2021-2027, in accordance with the Article 17 of the Regulation establishing the RRF. The PA sets the national strategy and the relevant priorities for

the implementation of the European Cohesion Policy and the Common Fisheries Policy. The PA aims to achieve effective results that will contribute to the climate change and environment goals and to growth and job creation in Cyprus. The PA sets out its funding priorities under the ESIF for the 2021-2027 period, as derived from the analysis of the country's development needs and perspectives, as well as the thematic objectives that Cyprus selected to invest into during the same period.

The strategic objective of the PA for 2021 - 2027 is the restructuring of the economy, the preservation and creation of new jobs and safeguarding of social cohesion. This strategic objective will be attained through the following policy objectives:

1. A more competitive and smarter Europe by promoting innovative and smart economic transformation and regional ICT connectivity.

This objective is further promoted by *“Component 3.1 - New Growth Model and diversification of the economy”, “Component 3.3 - Business support for competitiveness”, “Component 3.5 - Safeguarding Fiscal and Financial Stability” and “Component 4.1 - Upgrade infrastructure for connectivity”.*

2. A greener, low-carbon transitioning towards a net zero carbon economy and resilient Europe by promoting clean and fair energy transition, green and blue investment, the circular economy, climate change mitigation and adaptation, and risk prevention and management, and sustainable urban mobility.

This is facilitated by the *“Component 2.1 - Climate neutrality, Energy efficiency and renewable energy penetration”, “Component 2.2 - Sustainable transport” and “Component 2.3 Smart and Sustainable Water Management”.*

3. A more connected Europe by enhancing mobility.

This is further promoted through *“Component 2.2 - Sustainable transport” and “Component 4.1 - Upgrade infrastructure for connectivity”.*

4. A more social and inclusive Europe implementing the European Pillar of Social Rights.

This is further promoted through various RRP measures such as, the transparency of recruitment and advancement processes and gender impact assessment of new policies and adoption of family-friendly policies (e.g. in the context of *“Components 3.4 Modernising public and local authorities, making justice more efficient and fighting corruption and 5.2 - Labour market, social protection, social welfare and inclusion”.*

5. A Europe closer to citizens by fostering the sustainable and integrated development of all types of territories urban, rural and coastal areas and local initiatives.

This is further promoted through various RRP measures such as, the investments for *“Encouraging the use of renewables and energy savings by local/wider public authorities as well as NGOs and facilitate the transition of local communities towards climate mitigation & adaptation” (Component 2.1 - Climate neutrality, Energy efficiency and renewable energy penetration), “Implementation of SUMP projects and accessibility enhancing measures” (Component 2.2 - Sustainable transport) and “Enhancing the added value of the tourism sector with emphasis on the countryside, mountainous and remote areas” (Component 3.1 - New Growth Model and diversification of the economy).*

In this context, the role of the DG EPCD as the Management Authority for the implementation of the RRF and of the of EU Cohesion Policy and the Common Fisheries Policy has been utilised, in order to effectively select and allocate the proposed investments between the two instruments, safeguarding consistency, enhancing synergies and complementarity and avoiding possible overlaps and double-funding. In this allocation process, the national competent authority has

taken into account not only the objectives of the aforementioned instruments and the respective eligibility parameters, but also the eligibility timeframe of the two funding mechanisms (the eligibility period for the RRF spans from 1/2/2020-31/8/2026, whereas the respective eligibility period for the ESIF is between 1/1/21-31/12/29).

Consequently, the measures have a clear demarcation, whereas sectors with large investment needs are covered by both funding mechanisms. For example, actions related to the health (infrastructure and equipment) and tourism sectors will be funded only by the RRF. Similarly, measures related to exploiting the potential of information and communication technologies in all sectors of the economy, including the development of high-speed broadband infrastructure in areas of socio-economic interest and remote areas, will be funded by the RRF.

A comprehensive overview of the allocation of measures between the RRP and the European Structural and Investment Funds, is provided in Part 1 of the present document (specifically Annex 1 – “CSR – RRP – ESIF mapping”).

In this context, consistency and complementarity will also be ensured with the implementation of the Just Transition Plan in Cyprus.

Youth Guarantee implementation Plans

The Cyprus RRP is consistent with the reinforced Youth Guarantee and the short- and medium-term investment priorities and the ambition “Youth Employment Support: A Bridge to Jobs for the Next Generation”. Measures under the reinforced Youth Guarantee are financed by national resources, the RRF, the Union instruments under cohesion policy and in particular the Youth Employment Initiative, the European Social Fund (ESF), the European Regional Development Fund (ERDF) and other EU funding sources in line with their legal framework.

The consistency between the RRP and the reinforced Youth Guarantee will be primarily achieved through the investment “Improving the effectiveness of the Department of Labour and Public Employment Services and reinforcing support for young people” under *“Component 5.2 - Labour market, social protection, social welfare and inclusion”* and the investment *“Skilling, Reskilling and Upskilling”* under *“Component 5.1 - Educational system modernisation, upskilling and retraining”*.

Three (3) out of the five (5) actions included under the measure *“Improving the effectiveness of the Department of Labour and Public Employment Services and reinforcing support for young people”* are consistent with the reinforced Youth Guarantee and more specifically the actions referring to the outreach activities for NEETs, the early warning and tracking system for NEETs and the coaching and career guidance for young people. The remaining two (2) actions concern the digitalisation of the hiring incentive schemes system of the Department of Labour (DL) and the development of a performance management system for the further strengthening of the Public Employment Services (PES), which will enhance the effectiveness and efficiency of the DL and the PES in order, among others, to provide individualised counselling services to all vulnerable unemployed groups, including NEETs, and to implement the employment subsidy schemes.

The actions under the measure “Improving the effectiveness of the Department of Labour and Public Employment Services” complement the projects co-funded by the European Social Fund and the Youth Employment Initiative under the Operational Programme “Employment, Human Resources and Social Cohesion” during the Programming Period 2014-2020. More specifically they complement the measures that contribute to the promotion of employment, the improvement of vocational education and training aiming at the matching of skills with the labour market needs and the enhancement of the capacity of PES.

In addition, the investments “Improving the effectiveness of the Department of Labour and Public Employment Services” and “Skilling, Reskilling and Upskilling” are also consistent with the actions

implemented by the Human Resource Development Authority of Cyprus financed through national funds.

National Energy and Climate Plan

The National Energy and Climate Plan (NECP) outlines how the country intends to address energy efficiency, renewables, greenhouse gas emissions reductions, interconnections, research and innovation. The Integrated National Energy and Climate Plan (INECP) elaborates on the five (5) dimensions of the Energy Union; namely, decarbonisation which is broken down into two (2) distinct areas: greenhouse gas emissions and renewable energy sources, energy efficiency, security of energy supply, internal energy market, and research, innovation and competitiveness. The national targets for the next decade are monitored in detail in the last version of INECP (published in January 2020) on a mid-term basis, up to 2030, and should serve as a basis for an ambitious long-term strategy aiming towards the minimisation of greenhouse gas emissions by 2050. The decarbonisation dimension is the first and foremost component of the NECP structure.

The national fiscal framework currently includes climate change and natural disaster fiscal risks only to a limited extent. Relief and reconstruction after extreme weather and slow-onset events increase Government expenditure, including compensation for uninsured losses. Disaster risk management includes processes and tools to address ex-ante climate related risks and reducing ex-post disaster consequences. This will be reflected in future budgetary Planning, and in governance and institutional arrangements.

Therefore, climate adaptation and resilience objectives are embedded in the national recovery effort. Supporting the recovery will remain a central goal of macro-fiscal policy in the short and medium term. The scale and nature of the spending, also from the national budgets, heightens the importance of building back better. The Cyprus RRP supports and promotes investments and reforms to improve climate resilience across the country through the implementation of the national strategy and action Plan on climate change adaptation that was adopted in 2017.

Most of the priority areas of the NECP (and updates thereof) overlap with those of the RRF, regarding the green transition. These include the building renovation and affordable, energy-efficient housing, deployment of renewables, sustainable transport, energy system integration, dealing with negative externalities, energy efficiency measures, clean industry, other clean energy technologies, and including environmental impacts (i.e. on natural resources and biodiversity).

The RRP ensures consistency and complementarity with these policy areas through the components of “Policy Axis 2 - Accelerated transition to a green economy”, which are the “*Component 2.1 - Climate neutrality, Energy efficiency and renewable energy penetration*”, “*Component 2.2 - Sustainable transport*” and “*Component 2.3 - Smart and Sustainable Water Management*”.

Research and Innovation (R&I) has a significant role in the national efforts to improve energy efficiency and energy security, increase the share of renewable energy and tackle climate change. At the same time, research work to provide innovative products and services can add value to businesses and provide useful insights for policy makers. Therefore, “*Component 3.2 - Enhanced Research & Innovation*” contributing to the development of a new growth model driven by research, scientific excellence, innovation and technological development could promote the design, development and implementation of new clean energy technologies that will in turn contribute to addressing the environmental and climate targets set in the INECP.

In general, the implementation of the reforms and investments envisaged in the context of these components will assist in achieving the quantitative targets in the context of attaining the national energy and climate objectives for 2030 and beyond.

Other relevant national strategies

The RRP is also consistent with other national strategies aiming to maximise their results and impact. In addition to the Long-Term Economic Strategy for Cyprus (Vision 2035), with which the RRP is fully aligned, examples of strategies are the 3-year strategic Plans (2021-2023) of all Line Ministries and Independent Services of the Cyprus Government, the Economic Diplomacy Strategic Framework, the National Digital Strategy, the “Innovate Cyprus” Strategic Framework, the National Commercial Identity Strategy “Made in Cyprus” and the “Smart Cities Strategy”.

3. Complementarity of funding

In drafting the RRP, complementarity, synergy, coherence and consistency among different Union programmes and instruments have been pursued in accordance to Article 28 of the Regulation, utilising the national management and control systems, the structures and mechanisms established for the implementation of the RRF, as well as the structures used for the monitoring of other Union programmes.

Supported by the Council of Ministers’ decision of 22 August 2020, the preparation of the RRP has been drafted by the DG EPCD, in cooperation with the Ministry of Finance. The process has been implemented in close collaboration with all the Ministries, Deputy Ministries, the involved state-organisations, and the relevant stakeholders. Specifically, in order to foster synergies and effective coordination and ensure in accordance to Article 9 of the Regulation, that the support provided under other Union funds and programmes does not cover the same cost, two committees have been set up by the same Council of Ministers’ decision, under the Presidency of DG EPCD, one consisting of representatives from all Ministries responsible for the policy areas to be covered by the RRP, and another consisting of representatives from the three Ministries with responsibilities relating to the green and digital transition (the Ministry of Energy, Commerce and Industry, the Ministry of Agriculture, Rural Development and Environment and the Ministry of Transport, Communications and Works for the green transition and the Deputy Ministry for Research, Innovation and Digital Policy, for the digital transformation).

Aiming to further ensure complementarity of funding and avoidance of double funding, the drafting phase encompassed extensive collaboration between all public and private actors, both at policy, technical and advisory level. This stage included extensive consultation with all beneficiaries from the broader public sector and the relevant key stakeholders, such as the Cyprus Economy and Competitiveness Council, representatives from the political parties, environmental organisations and the academia. Specifically, the consultation with the Cyprus Economy and Competitiveness Council has been intensive, aiming to streamline the RRP with the Long Term Economic Growth Strategy for Cyprus, prepared by the Council, considering the results of the stakeholder consultation (which included the political parties, the industry and other relevant stakeholders). Similarly, the DG EPCD, has implemented an extensive consultation with political parties and environmental organisations, aiming to enhance the effectiveness of public spending and safeguard the greatest possible consensus with political parties. This consultation has paved the way for enhanced transparency, coherence and identification of synergies and possible overlaps between the proposed Plan and other Union initiatives, ensuring thus that the support under the RRP is additional to the support provided under other Union funds and programmes. Detailed description of the consultation process is provided in section “*Consultation Process*”, of Part 3.

As discussed in section “*Consistency with other initiatives*”, the DG EPCD is the responsible authority for the implementation of the RRF, the Cohesion Policy funds (the European Regional Development Fund, the Cohesion Fund and the European Social Fund), the Common Fisheries Policy and the Just Transition Mechanism, which has further enabled enhanced coordination,

synergies and demarcation between the use of different instruments, safeguarding the avoidance of double funding. To this end, regular consultation meetings with the respective managing teams has further enabled the synergetic and additionality approach. In this context, the investment package under the RRF, has considered the measures that are currently being evaluated for incorporation in both the Cohesion Policy and the Just Transition Mechanism, which have not been concluded yet. In order to clearly identify such complementarity, specific references are provided in the relevant investment descriptions outlined in Part 2 of the RRP.

In this context, the direct involvement during the costing phase, of the Verifications and Certification Directorate of the Treasury of the Republic of Cyprus, which supports the financial management of all Operational Programmes co-financed through European Structural and Investment Funds under shared management with the European Commission, has further played a decisive role in differentiating the measures, activities and projects to be funded under the RRF from those measures funded under the European Structural and Investment Funds or other Union programmes such as the Connecting Europe Facility, safeguarding thus the avoidance of double funding. The head of the Verifications and Certification Directorate has been assigned as the national costing coordinator for the RRP and will also constitute the main contact point with the Commission Services on costing issues. The role of the national costing coordinator is the timely provision of comprehensive, adequate and documented information regarding the costing of the RRP projects. The role is described in the Monitoring System.

In this context, when estimating the financing needs, special attention has been paid to the avoidance of double funding and emphasis has been given to the exclusion from the Plan of any recurring national budgetary expenditure, and the different timeframes between the cohesion programmes and other policy funds, such as the LIFE funding programme and the Connecting Europe Facility and the RRF, as clearly indicated by Article 5 (1) of the Regulation. Adhering to Article 18 4(l) the costing tables submitted to the European Commission accompanying the RRP, provide detail information regarding the sources of financing for each reform and investment proposed under the RRP, including information regarding the support to be provided from national funds. Information for the funding breakdown regarding public financing is provided under each Component in Part 2 of the Plan under the section "**Financing and Costs**", indicating the funds that relate to direct budgetary support (such as subsidies or tax incentives), and/or financing mechanisms including guarantees, renovation loans and subsidies, support and capacity building.

The last stage of the structures and mechanisms established under the RRF aiming to prevent, detect, report and correct fraud, corruption and conflict of interest, relates to the establishment of the national management and control system, designed for the purposes of the implementation of the RRF, in accordance to Article 18 4(r). Detailed description of the implementation and the national management and control system is provided in section "**Implementation**" and in section "**Controls and Audits**" of Part 3.

The DG EPCD, will be the Coordinating Authority and its role is to oversee and coordinate as necessary in order to ensure the successful implementation of the plan in its entirety and has the overall supervision of the execution of monitoring, verification and audit by all stakeholders in accordance with the management and control system and the national and EU legislation. In this respect it has the responsibility to prevent, detect, report and correct conflicts of interest, corruption and fraud, and avoid double funding and to provide sufficient assurance to the EU concerning the respect of key sound financial management principles (no fraud, no corruption, no conflict of interests, no double funding) when using the EU's financial contribution under the Facility. Verifications and audits are carried out in order to ensure sound financial management and compliance with EU and national law throughout the RRP implementation including avoidance of double funding.

4. Implementation

Governance and Administrative Arrangements

Effective organisational structure, quality governance and strong administrative capacity are essential in the effectiveness and efficiency of the implementation of the Plan and therefore, the timely absorption of funds available to Cyprus under the RRF.

The proposed **governance** system for the effective and efficient implementation of the Plan was developed in accordance with the requirements outlined in the “Regulation on the Recovery and Resilience Facility” (*Article 18(4) (p), Article 18(4)(t), Article 19(3)(h), Article 24. Annex V 2.8*) and the “Guidance to Member States”. The governance system was developed with technical support from the DG REFORM and it described in detail in Annex Management and control system, section “Governance System” (“**Σύστημα Διακυβέρνησης**”) in its original format in Greek.

In the context of the EU, **administrative capacity** can be conceptualised as the combination of capabilities used to achieve effective spending of EU funds, namely human resources (numbers, quality in terms of skills and expertise, human resource management systems that structure incentives, etc.), organisational structure (institutional design, coordination and accountability of bodies in the management and implementation processes), systems and tools (including adaptability to procedures), and governance (legal and procedural arrangements).

Equipping all competent authorities involved in the implementation of the RRP as presented in the Governance System with adequate administrative capacity is key to ensuring the effective and efficient implementation of the reforms and investments included in the Plan and to maximising RRP potential to contribute to regional, national and EU recovery, growth and resilience. Therefore, the existing human capital, internal organisational structures, systems and tools and authorities of the competent authorities, as well as the existing skills and competencies of the professionals, have been taken into consideration to ensure their ability to effectively conduct their respective roles and responsibilities as described.

The administrative arrangement for the effective and efficient implementation of the Plan is also described in detail in Annex Management and control system, section “Governance System” (“**Σύστημα Διακυβέρνησης**”).

In addition, Cyprus has paid significant attention to the implementation of long-standing **Country Specific Recommendations (CSRs)** in the development of its RRP with the aim to further build on the administrative capacity and efficiency of the public administration and the business environment, the effectiveness of justice systems and the fight against corruption and money-laundering, and the respect of the Rule of Law. Namely, the CSRs that are envisaged to significantly and positively contribute to the strengthening of the administrative capacity of the public and wide public sector are the following:

- 2019 CSR1.1 - Adopt key legislative reforms to *improve efficiency in the public sector*, in particular as regards the functioning of the public administration and the governance of State-owned entities and local governments.
- 2019 CSR3.2 - Deliver on the reform of the education and training system, including *teacher evaluation*, and increase employers' engagement and learners' participation in vocational education and training, and affordable childhood education and care.
- 2019 CSR4.2 - Adopt legislation to *simplify the procedures* for strategic investors to obtain necessary permits and licences.
- 2019 CSR5.1 - Step up efforts to improve the *efficiency of the judicial system*, including the functioning of administrative justice and revising civil procedures, increasing the specialisation of courts and setting up an operational e-justice system.

- 2019 CSR5.3 - Accelerate *anti-corruption reforms*, safeguard the independence of the prosecution and strengthen the capacity of law enforcement.
- 2020 CSR4.2 - Improve the *efficiency and digitalisation of the judicial system and the public sector*.

In addition to the above and to strengthen further the administrative capacity of the Coordinator (DG EPCD), it is decided that 2 full-time permanent employees and 4 full-time temporary employees will be hired for the period 2021 - 2026 for the sole purpose of performing the role and responsibilities described for the Coordinator above.

Moreover, to strengthen further the administrative capacity of the Audit & Control Authority (Treasury), it is decided that two full-time employees will be hired for the period 2021 - 2026 for the sole purpose of performing the role and responsibilities described in the Audit and Control section of Part 3 of the Cyprus RRP.

Finally, administrative capacity building will be achieved through the acquisition of **technical assistance**, short- and long-term training, as well as specialist inputs throughout the course of the implementation of the RRP. In the development of the RRP, it was identified where technical support, including external expertise, could be beneficial and where required it has been justified. It is anticipated that *technical support* may come in the following forms:

- External expertise, such as consultancy or trainers, contracted directly by the Republic of Cyprus;
- Commission-led support or external expertise request technical support under the Technical Support Instrument (DG Reform);
- Other support sector-specific services offered by the Commission services.

It is ensured that any external technical support does not imply an outsourcing of essential government tasks related to milestones and targets.

Uncertainties

There are *uncertainties and risks associated* with the implementation of large (in scope and funds), long (in implementation period) and complex programs such as the RRP. Cyprus has placed significant effort in anticipating and managing such uncertainties and risks in the development of the RRP to ensure its efficient and successful implementation.

Specifically:

- *Implementation period of the Plan (2021 - 2026)*

The reforms and investments included in the RRP must achieve their respective milestones and targets as defined in the Plan within the implementation period 2021 - 2026. Given the inherent risks in the implementation of ambitious programs such as the RRP, the timely achievement of milestones and targets set towards the end of the implementation period may be at risk.

In the development of the Plan, the milestones and targets set against each reform and investment have been carefully thought of and designed in a way that addresses the aforementioned uncertainties and risks. Enough flexibility has been built into the Plan so as to assure its successful completion. The “National management and control system” (“Συστήμα Παρακολούθησης και Ελέγχου”) Annex Management and control system describes in detail the roles assigned and their importance in monitoring and managing the implementation of each reform and investment against its stated objectives, milestones and targets, as well as reporting and communicating timely any issues and risks observed with an aim to take all necessary corrective actions.

- *Scope of reforms and investments*

During the preparation of the RRP, significant effort has been made to develop in detail each reform and investment by thinking thoroughly about the current landscape and challenges faced, objectives and desired impact, competent authorities required involvement to implement, key implementation considerations, etc. It is acknowledged that the level of maturity of each reform and investment differs and therefore, less mature reforms and investments may require adjustments and fine tuning prior to the commencement of their implementation. Also, some relatively more mature reforms and investments that are complex and politically challenged in nature may also require adjustments and fine tuning during their implementation in order to be successfully completed.

Such adjustments to the scope and implementation specifics of reforms and investments will be identified proactively to avoid delays to the implementation of the overall Plan.

In the development of the Plan, the scope and implementation specifics (including timeframes) of each reform and investment have been carefully thought of and designed in a way that provides for some flexibility in case of small deviations from the approved Plan. During the implementation of the Plan, each competent authority presented in the governance structure will have an important role to play in ensuring that issues and risks are captured, reported and managed timely so as to avoid scope creep and significant deviations from the approved Plan. This is covered in detail in the “National management and control system” (“Σύστημα Παρακολούθησης και Ελέγχου”), Annex Management and control system.

It should be noted that significant and fundamental changes to the Plan may trigger an amendment to the Cyprus RRP. In such an event, an amended Plan will be reviewed and submitted by the Coordinator to the Commission while ensuring that:

- The amended Plan contributes to the objectives of the RRF;
- Measures related to previously satisfactory fulfilled milestones and targets have not been reversed by the Member State.

The submission of an amended Plan will trigger a new assessment and possibly an amended implementing act (Article 21).

- *Costing of reforms and investments*

During the preparation of the RRP, significant effort has been made to develop in detail each reform and investment so as to be able to cost them as accurately as possible. It is acknowledged that the level of maturity of each reform and investment differs and therefore, less mature reforms and investments may incur slightly differ actual costs to the estimated costs as presented in the RRP. Cyprus may cover some of these cost differences from national funds.

In the development of the Plan, significant effort has been placed in accurately and reasonably costing each reform and investment by employing various costing methods such as analogous (top-down), parametric and bottom-up approach and introducing simplified cost options in way to reduce the administrative burden accompanying the cost estimation. The costing of each reform and investment has been discussed between Verifications and Certification Directorate who has been assigned as the National Costing Coordinator for RRP and the relevant competent authorities responsible for implementation and the necessary checks have been performed so as to assure the accuracy and reasonableness of the final cost estimates. The role of each stakeholder body in monitoring and managing the implementation of each reform and investment

against its estimated cost, as well as reporting and communicating timely any issues and risks observed are described in detail in Annex Management and control system.

- *Interdependencies and delays*

It is recognised that the implementation of some reforms and investments is dependent on the successful implementation of other reforms and investments. Such interdependencies have been considered and planned for in the development of the Plan, yet it would still possible that delays in the implementation of some reforms and investments, especially some complex and politically challenged ones, upon which other reforms and investments are dependent, may impact Cyprus' ability to successfully meet the stated milestones and targets.

In the development of the Plan, key interdependencies between the reforms and investments were identified and accounted for in the time frames presented for the implementation of each reform and investment. Such interdependencies will be further factored in the development of the detailed project plans that will be developed for the implementation of each reform and investment. The Coordinator and the Project Promoters will have an important role to play in frequently monitoring progress made in the implementation of all reforms and investments and in identifying risks and issues associated with delays on reforms and investments upon which others depend.

- *Administrative capacity*

The current administrative capacity of the public and wider public sector has been considered in the development of the Plan, as well as in the development of the proposed governance structure, roles and responsibilities presented above. Nonetheless, it is possible that the competent authorities involved in the implementation of the reforms and investments may fall short of the administrative capacity required to efficiently, effectively and timely implement.

Effort has been placed on ensuring that the competent authorities involved in the implementation of the Plan will have adequate administrative capacity (i.e. the combination of capabilities, namely human resources, organisational structure, systems and tools and governance) to efficiently and successfully implement the Plan in its entirety. Some shortcomings have already been identified during the preparation of the Plan and necessary actions have been taken to proactively strengthen the DG EPCD (Coordinator) and the National Costing Coordinator (see detailed description in Annex Management and control system). It is envisaged that other shortcomings may be covered through external technical support either from external expertise, such as consultancy, developers or trainers directly contracted by the Republic of Cyprus, or through Commission-led support.

- *Public Procurement*

Many of the reforms and investments included in the RRP will be tendered out through public procurement. The National Legislative Framework of Cyprus in the field of Public Procurement is harmonised with the European Directives. The public procurement system in Cyprus has a decentralised approach since contracting authorities are responsible for their own tenders, even though the legislative and review body is centralised at the State level under the Treasury of the Republic of Cyprus. The Project Promoters must ensure the effective public procurement rules in line with the EU regulations.

Understanding the significance of public procurement in the implementation of the RRP as well as the overall effective operation of the public administration, Cyprus has addressed this matter through the inclusion of reform "Strengthen administrative capacity and transparency through the professionalisation of public procurement and further

digitalisation of its process”, under Component *3.4 Modernising public and local authorities, making justice more efficient and fighting corruption*. The successful completion of this reform is anticipated to build the necessary additional administrative capacity in the contracting authorities and generate efficiencies in the procurement processes which will in turn create efficiencies in the implementation of other reforms and investments under the RRP.

5. Consultation process

The involvement and participation of all relevant stakeholders has been an instrumental element of the preparation of the RRP, with the aim to endorse the implementation and adoption of the Plan by the whole society. In accordance with Article 15(3)(ja) of the Regulation, the involvement of stakeholders, within the national legal framework has been a fundamental process from the initialisation of the preparation of the Plan.

Showing political willingness to involve all stakeholders in the process at the highest level, the Minister of Finance initiated a round of discussions in early autumn with all political party leaders analysing the importance and scope of the RRF and requesting their implementing reforms and investments. Furthermore, the Minister initiated the dialogue with social and economic partners by presenting the overall strategy and policy axes to them.

The Council of Ministers (CoM) on 21 August 2020 (decision 88.919) approved the first outline of the priority axis of the Plan as well as its governance model. According to this CoM decision two intergovernmental Committees and the overall governance model were set up:

- (a) DG EPCD was appointed, in cooperation with the Ministry of Finance (MoF), overall responsibility for the preparation of the Plan;
- (b) Working Group set up, consisting of the Permanent Secretaries of DG EPCD and the MoF or their representatives, for the overall preparation of the Plan;
- (c) Interministerial Committee set up, chaired by DG EPCD, consisting of representatives of the MoF, the Ministry of Agriculture, Rural Development and Environment (Department of Environment), the Ministry of Energy, Commerce and Industry (Energy Service), the Ministry of Transport, the Ministry of Communications and Works and the Deputy Ministry of Research, Innovation and Digital Policy.

Following the CoM Decision, DG EPCD in cooperation with the MoF initiated an intensive round of consultation with all Ministries/Services in order for them to submit their proposals for the first draft. The involvement of Ministries/Services has been continuous for the finalisation of the Plan. Consultation took place through the intergovernmental bodies mentioned above, meetings at the higher political level with Ministers and Permanent Secretaries as well as numerous meetings at technical level.

Consultation with stakeholders

On 16th September 2020, the Minister of Finance sent a letter to social and economic partners, informing them of the details regarding the preparation of the RRP and at the same time inviting them to a meeting at the MoF for exchange of ideas for the relevant subject. On the 6th of November a teleconference took place, between social and economic partners and the Permanent Secretaries of DG EPCD and MoF for an exchange of views.

Following these consultations stakeholders submitted written proposals, see Table 1 below. The proposals of the aforementioned organisations covered mainly the following areas: a) improving public health, b) social policy and human capital, c) new model of economic development, d) transition to a green economy, e) safety and health at work. Once received, they were sent to relevant Ministries/Services in order to be incorporated, to the extent possible, in the

Components of the Plan. Some specific examples have been incorporated under the Components of the Plan. More specifically, under Component 1.1, the investment *Incentives for adequate medical equipment / modernisation of public hospitals*, under Component 2.1. the reform *Green Taxation*, under Component 3.3. investment *Encouraging the creation of start-ups and practical support of promising new businesses through a seed fund where private investors can also participate / Creation of an Investment Fund in start-ups*, under Component 4.2. investments *Intensification of Public Service digitisation process* and *Simplification of public procedures along with the introduction of information technology* and *Promotion of digital mechanism*, under Component 5.1. investments *Reform of Vocational Education* and *Better linking of the labour market with education* and under Component 5.2. reform on *New forms of employment (e.g., teleworking)*. The 1st draft was sent again for consultation to all stakeholders on the 3rd of March 2021.

On 19th January 2021, the Youth Organisation submitted to the MoF a concept note, consisting of their proposals with regards to the RRP. The concept note was the result of an extensive virtual consultation with representatives of youth organisations and young people for their ideas on reforms and other actions. The proposals of the Youth Organisation were in the following areas: (a) labour market, social policy, education and human capital, (b) towards a digital age of efficiency and productivity, (c) accelerating the transition to a green economy, (d) a new model of economic development. Examples of their proposals that were incorporated in the Plan are: under Component 5.1. investment on *Upgrading infrastructure and digital upgrade of education*, Component 4.2 *Digitalisation of public services*, Component 2.1. investments under *Utilisation of Renewable Sources of energy* as well as under Component 3.4. investments on *Upgrading of Urban Centres*.

Environmental organisations are also a very important stakeholder. The draft Plan was sent to them and a videoconference for an exchange of views took place on the 29th of March 2021. The views of the environmental organisations were taken seriously in consideration in finalising the Plan, e.g., removing investments from the Plan, adhering to strict environmental rules and procedures.

The Ministry of Interior, being the competent Ministry for local authorities, engaged in September 2020 in consultation with all local authorities for their views on actions to be included in the Plan. As a result, a number of municipalities and community councils submitted over 150 proposals for inclusion in the Plan. A number of investments were included under Components 3.4, 5.2 and 2.2. In parallel, other Ministries/Services also held consultations with various stakeholders on the topics of their competences.

Below a list of consultations held at horizontal level with the stakeholders mentioned above.

Table 1: List of responses of economic and social partners

A/A	Economic and social partners	Date of response submission
1.	Employers & Industrialist Federation	02/10/2020
2.	Cyprus Chamber of Commerce and Industry	05/10/2021 17/03/2021
3.	Pancyprian Workers Federation	06/11/2020
4.	Democratic Labour Federation of Cyprus	06/11/2020
5.	Cyprus Workers Confederation	23/11/2020

		12/03/2021
6.	Pancyprian Public Employees Trade Union	17/11/2020
7.	Youth Board of Cyprus	19/01/2021
8.	Cyprus Scientific and Technical Chamber	11/03/2021
9.	Pancyprian Teachers Association	16/03/2021
9.	Birdlife Cyprus	30/03/2021
10.	Federation of Environmental Organisations of Cyprus	30/03/2021

Consultation with Political Parties

In view of the very important role of the House of Representatives in the smooth implementation of the Plan’s ambitious reform programme, the CoM decided on the 16th of December 2020 (dec. num 90.549) to form a technical committee, to be chaired by the Permanent Secretary of DG EPCD, consisting of representatives of all Parliamentary Parties. The aim of the technical committee was to discuss the content of the Programme. Finally, by the same CoM decision, the Cyprus Economy and Competitiveness Council (“Council”) was invited to provide its opinion on the draft Plan (see section below).

The committee held six meetings between January and February 2021. In each meeting a presentation of a Priority Axis and its Components took place, followed by an exchange of opinions. Following the meeting, political parties send written proposals, that have been sent to the relevant Line Ministries and underwent an evaluation process from the competent authorities.

Furthermore, it has been agreed that the Committee will remain active throughout the implementation of the Plan in order to facilitate the implementation especially of the reforms of the Plan.

Opinion of the Cyprus Economy and Competitiveness Council

The Commission’s recommendation on Member States seeking the opinion of their national productivity boards on their Plan is fully aligned with the process followed by the Cypriot authorities. More specifically, the Cyprus Economy and Competitiveness Council, an independent advisory body equivalent to a national productivity board, established by a CoM’s decision in June 2018, has been actively involved in the preparation of the Plan, mainly through the coordination of the preparation of the Long-Term Economic Strategy (LTES). Following the European Commission’s announcement for the New Generation EU and the request to Member States to draw up their Plans for the use of the RRF, it was imperative for the Cypriot authorities to link the LTES and the national RRF. In fact, the Plan has been drafted taking as a basis the LTES, filtered by the European Commission guidelines. As a result, the Cypriot authorities not only sought the opinion of the Council regarding the formulation of the Plan but also strengthened and continued an already established collaboration with the Council. This collaboration has been taking place through different channels:

- A representative from the MoF is a member of the Council, while DG EPCD is the Secretariat. This allows for the continuous communication and collaboration between the Council’s work and initiatives promoted in the Plan, among other projects.
- Representatives from the MoF are active participants in the LTES Steering Group Committee. This has been an important channel through which information flows - with respect both to the horizontal and vertical propositions/actions - of the LTES towards the Plan.

- While the LTES is not totally completed, the new vision, the new growth model, the focused growth sectors, and the key enablers of the strategic objectives have been finalised. The work of the LTES was frontloaded and in March 2021 the Council sent specific proposals for reforms and investments to be incorporated in the Plan.

Given the consistency and alignment in the strategic objectives of the LTES project and the RRF – the need for resilience against unprecedented shocks, long-term and sustainable growth, etc. – the reforms and investments included here have strong links and a similar spirit and aim as items found in other Axes and Components of Cyprus’ RRF Action Plan. Together, the outputs of the LTES and the RRF will be a strong combination to deliver success.

The progress on the preparation of the Plan was presented monthly to the Council and the draft Plan was presented to the Council in February 2021. On the 22nd of March the Chair of the Council sent a letter with proposals on the content of the Plan, mostly on the linkage with the LTES. A number of meetings took place at the end of March between representatives of the Council and competent Ministers in order to discuss the Council’s proposals stemming from the LTES. A substantial number of proposals were incorporated in the final draft. More specifically, both sectoral reforms and investments in Component 1.1. and mostly Component 3.1. as well as horizontal proposals of reforms in the remaining Components of the Plan, mainly in Priority Axis 3, 4 and 5.

6. Control and audit

The national management and control system (MCS) to protect the financial interests of the Union and in particular to prevent, detect, report and correct fraud, corruption and conflict of interests was developed in accordance with the requirements outlined in the “Regulation on the Recovery and Resilience Facility” (Article 15(3)(b), Article 16(3)(j), Article 19 and Annex II Section 2.10) and the “Guidance to Member States”. The MCS was developed with technical support from the DG REFORM and it is described in detail in ANNEX 4 in its original form in Greek, which is the official text.

Below we provide the Executive Summary of the document in a draft English translation.

Scope

The Management and Control System of the RRP has been prepared in accordance with the EC guidance. More specifically, the MCS forms the governance system of the RRP of the Republic of Cyprus and was prepared in accordance with the requirements of Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 “establishing a Recovery and Resilience Mechanism” and of the EC Guidance Documents for the Member States for the design and implementation of the national RRP⁶¹, and in line with the provisions of Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council of 18 July 2018 on the financial rules applicable to the general budget of the Union⁶² (Financial Regulation).

The scope of the MCS is to establish, at a national level:

- a) the required procedures and

⁶¹ European Commission, Commission Staff Working Document, Guidance to Member States, Recovery and Resilience Plans, SWD(2021) 12 final, 22.1.2021, Parts 1 and 2.

⁶² Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council of 18 July 2018 on the financial rules applicable to the general budget of the Union, amending Regulations (EU) No 1296/2013, (EU) No 1301/2013, (EU) No 1303/2013, (EU) No 1304/2013, (EU) No 1309/2013, (EU) No 1316/2013, (EU) No 223/2014, (EU) No 283/2014, and Decision No 541/2014/EU and repealing Regulation (EU, Euratom) No 966/2012

b) the competent bodies

which will ensure sound financial management and the performance of the necessary controls and audits in order to comply with applicable Union and national law, safeguarding the financial interests of the Union throughout the implementation of the RRF - funded measures.

The main objective of the MCS and the basis for the design of the procedures it incorporates, is the **prevention, detection and control of** the risks of fraud, corruption and conflict of interest, as well as the avoidance of double funding between the RRF and other implemented national and Union programs.

For the monitor and control of the implementation of the RRF, the following were utilised to the extent possible:

- Existing monitoring and control procedures, used in the implementation of programs and projects financed either through the national budget or co-financed from European funds (mainly ESIF Funds),
- Existing bodies, responsible for monitoring and control in the implementation of programs and projects financed by the national budget or co-financed from European funds and responsible officers within those bodies with relevant experience and capacity.

Legal Basis and Amendments of the MCS

The MCS entered into force by the Council of Ministers Decision, of 14 May 2021, which approved the Recovery and Resilience Plan (Decision). More specifically, with this Decision:

- the procedures described were approved and entered into force
- the bodies involved in the described procedures were delegated specific responsibilities
- the Minister of Finance was authorised to make any necessary technical modifications to the procedures, in consultation with the involved Ministers, without returning the matter to the Council of Ministers.

The European Commission will be notified of any modifications to the MCS and it shall reserve the right to request additional information substantiating the amendment, as well as to provide guidance and instructions, if deemed necessary, in order to ensure compliance with all the requirements of the RRF Regulation.

Structure and Content

The MCS is structured in the following chapters and annexes:

- **Chapter 1:** Introduction, structure and content of the MCS and executive summary of each Chapter.
- **Chapter 2:** Description of the Governance System of the MCS, which lists all the bodies involved in the monitoring and control of the RRP, including their main functions and key responsibilities, which are further analysed in the next Chapter. Specifically:

An **RRP Monitoring Committee** is established, in order to monitor the progress of the implementation of the overall RRP, resolving issues and responding to risks, either specific or of a general nature, that may have an impact on the smooth implementation of the RRP.

The **Coordinating Authority (CA)** of the RRP is the Directorate for Competitiveness and Growth Strategy of the Directorate-General for European Programs, Coordination and Development (DG EPCD). The continuous cooperation of the Directorate with the other Directorates of DG EPCD and the Ministry of Finance ensures the coordination of all national and co-funded by European funds programs and projects, as well as the avoidance of double funding of projects from different programs.

The CA has the overall responsibility for coordinating and monitoring the implementation of the RRP and for ensuring the compliance of all involved bodies with MCS procedures and national and union legislation, while being the point of contact and exchange of information with the EU. The CA is also responsible for **monitoring, verifying and certifying the achievement of the milestones and targets of measures** of the Plan (reforms and investments) and coordinates the Project Promoters during the implementation of the measures under their responsibility, in accordance with the RRP timeline and ensuring the timely submission of all information described in Article 22(2)(d) of the RRF Regulation which are required for the control of double funding and conflict of interest.

In addition, the CA, **as the National audit and control coordinator for the implementation of the RRP**, collects the results of audit procedures undertaken by the audit bodies, as well as all cases of serious irregularities, including cases of fraud or suspicion for fraud, corruption and conflicts of interest that are necessary for the preparation of the management declaration and the summary of audits that accompanies each Payment Request.

The CA is assisted, in performing its monitoring functions for the implementation of the RRP, by the **Monitoring Bodies (MB)**, which are bodies with extensive experience in the implementation of national and co-financed projects. Monitoring Bodies have been designated the performance of monitoring tasks and the verification of the achievement of the milestones and targets, for specific measures of the Plan.

All measures (investments and reforms) of the RRP are implemented by **Project promoters (PP)**, i.e. either Central Government bodies or bodies outside the Central Government, which perform tasks arising from existing national and European legislation and which they also exercise when implementing any project funded from the national budget. More specifically, in implementing the projects the PPs will undertake first level controls and verifications of the physical and financial aspect of the measures under their responsibility in the same manner as they would perform for a project funded from the National Budget. Over and above of their usual functions, PPs have been assigned additional obligations in implementing the measures of the RRP under their responsibility, in accordance to the provisions of the RRP, including regular update of the CA and the MBs (where relevant) regarding progress in achieving the milestones and targets of the measures under their responsibility, by providing of all the necessary supporting documentation.

The **audit and control functions of the measures implemented under the RRP**, for all levels and types of control procedures (ex-ante controls – performed internally by the PPs / ex-ante verifications for the certification of compliance with Union policies / ex-post secondary - independent internal audits / ex-post - independent external audits) are undertaken by the same bodies and responsible officers that have such responsibilities in terms of any measure funded from the national budget, in accordance with existing national legislation, with appropriate additional audit and control requirements provided for the RRP funded measures, where deemed necessary. More specifically:

- During the design of the RRP, under the responsibility and coordination of the CA and with the support of all relevant competent Directorates of DG EPCD and the Ministry of Finance, all the necessary preliminary controls for the avoidance of double funding with other national or European co-funded programs are undertaken, for all measures to be included under the RRP.
- Prior to the submission of the RRP for approval, the relevant competent **Horizontal Policies Authorities (i.e. the Commissioner for State Aid Control, the Public Procurement Directorate of the Treasury of the Republic, the Department of Environment of the Ministry of Agriculture, Rural Development and Environment, the Ministry of Justice and Public Order, and the Department of Labour of the Ministry of Labour, Welfare and Social Security)** certify the compliance of the overall RRP with horizontal national and union policies **for the preservation, protection and improvement of the environment, equality and the absence of any form of discrimination**. Compliance with the **"Do no significant harm" principle** is also certified, for each measure under the RRP. The **Costing Coordinator** has validated the costing of all measures included under RRP.
- Prior to the award of any public procurement contract with an estimated budget exceeding the specified thresholds and prior to the commencement of the implementation of any Aid Scheme, the respective competent **Horizontal Policy Authorities** verify the **compliance with the public procurement and state aid legal requirements and procedures** as applicable to any project / aid scheme that is implemented within the framework of the national budget as well as those specifically designed for the measures funded under the RRP. In addition, before the approval for funding of their projects / proposals is granted, the final recipients of aid under the RRP certify their **continuous compliance with the "Do no significant harm" principle**.
- Before the initiation of any project and before the execution of any item of expenditure, and as applied for any measure implemented under the national Budget, the **internal control mechanism of each PP is** activated, to check the legality and regularity of each expenditure item and to verify the implementation of the respective physical aspect to which the expenditure relates. The internal control mechanism of each PP under the Central Government includes the Head of the Economic Operator, the Controlling Officer, the Responsible Officer appointed at the level of each measure, and the Financial Management Directorates of the Treasury of the Republic of Cyprus (TRoC) that have been assigned to each Ministry. A similar mechanism is applied in PPs outside the Central Government. Specifically, in respect of Aid Schemes, the relevant PPs control the double funding of individual expenditure items at the level of supporting evidence submitted, either through automated checks using information systems or, in the absence of such information systems, through inspecting and stamping of the original documents during the administrative or on-the-spot verifications.
- The Independent **Internal Audit Service (IAS)** is responsible for conducting ex post internal audits in any central government body including Project Promoters responsible for implementing measures under the RRP, including the audit of the achievement of milestones and targets of the RRP, through an appropriate sampling method and at a predetermined frequency.
- The Independent **Audit Office (AO)** is responsible for conducting independent, reliable and documented financial, performance and compliance ex post (and in some cases real time) external audits for all projects implemented under the National Budget (within and outside the Central Government), through an

appropriate sampling method which complies with the INTOSAI standards and in which it is ensured that the selected sample necessarily includes a sufficient number of measures implemented through RRP.

The National Anti-Fraud Coordination Service (AFCOS) against infringements affecting the financial interests of the European Union, the Attorney General of the Republic and the Police contribute to addressing the risks of corruption, fraud and conflicts of interest, while all bodies involved in the MCS and especially bodies with audit and control responsibilities, contribute to the prevention and timely detection of such risks throughout the implementation of the RRP.

All the bodies involved in the procedures of the MCS ***have adequate administrative capacity (organisational set up and a sufficient number of staff with significant experience and appropriate qualifications)***, which will be utilised in the implementation of RRP measures.

Additional responsibilities relevant to the implementation of the measures of the RRP are assigned to the CA and to the relevant MBs and PPs, as well as to the Internal Audit Service in terms of the audit of the verification of milestones and targets. The PPs will exercise these responsibilities by utilising their existing staff, which is considered sufficient. In cases where it was deemed necessary to recruit additional staff for the PPs for the implementation of the measures (especially in cases of Aid Schemes with a large volume of transactions / applications) fixed term employment staff will be recruited for the duration of the measure, or relevant services will be procured. Due to the significant number of measures under its responsibility as a Monitoring Body, the Deputy Ministry of Research, Innovation and Digital Policy, will be recruiting additional staff for undertaking this specific function. As far as the CA is concerned, the staff currently employed are appropriately qualified and experienced to ensure a smooth and seamless implementation of all the actions required for the formulation and initiation of the implementation period of the RRP. Additionally, for the implementation of the RRP, the CA will proceed with additional staff recruitments specifically for the coordination and monitoring of the RRP-funded measures. Furthermore, following the submission of the RRP for approval by the European Commission, the requirement for additional staffing of the Internal Audit Service and the Audit Office through temporary fixed term employment staff or procurement of services will be assessed.

As far as the Deputy Ministry of Research, Innovation and Digital Policy is concerned, which has the dual responsibility of Project Promoter and Monitoring Body, appropriate segregation of duties will be ensured. Similar arrangements have been established in DG EPCD for the purpose of undertaking its responsibilities as the CA of the RRP.

- **Chapter 3:** Description of the RRP procedures, encompassing the steps to be undertaken for implementing each procedure required to achieve the objectives of the RRP. The following procedures are described:
 - ***Initiation and planning of the implementation of the measures of the RRP.***
Description of the process of securing funding from the National Budget and specific analysis of the implementation of the milestones and targets incorporated in the approved RRP. The relevant PPs undertake to implement the measures under their responsibility in accordance with the respective timeframe of the milestones and targets and in line with the provisions of the MCS. The initiation procedures also include the procedures for the selection of contractors / counterparties / final recipients of aid undertaken by the PPs in accordance with

the national and European regulatory framework on public procurement and state aid.

- **Monitoring the implementation of the RRP.** *Description of the process of monitoring the implementation of each measure of the RRP under the responsibility of the CA and the MBs (where relevant), as well as monitoring of the implementation of the RRP by the CA, in line with the commitments of the approved RRP. The monitoring is achieved through the utilisation of the information submitted on a regular basis (quarterly) by the PPs in accordance with their commitments which arise through the RRP funding. The most important information is the progress in the achievement of set milestones and targets and the verification of their achievement. Information provided include also evidence regarding the achievement of intermediate monitoring indicators and stages as well as the detection, prevention and addressing of risks and problems that may have an impact on the timely achievement of the measures.*
- **Verifications and audits.** *Detailed description of all the verification and audit procedures, the level and point of time at which they are undertaken, following the approval of the RRP, by the verification and audit bodies cited in Chapter 2, in the context of the national procedures for the control and audit of measures financed from the National Budget, and which are also applied in respect of RRP-funded measures. These include:*

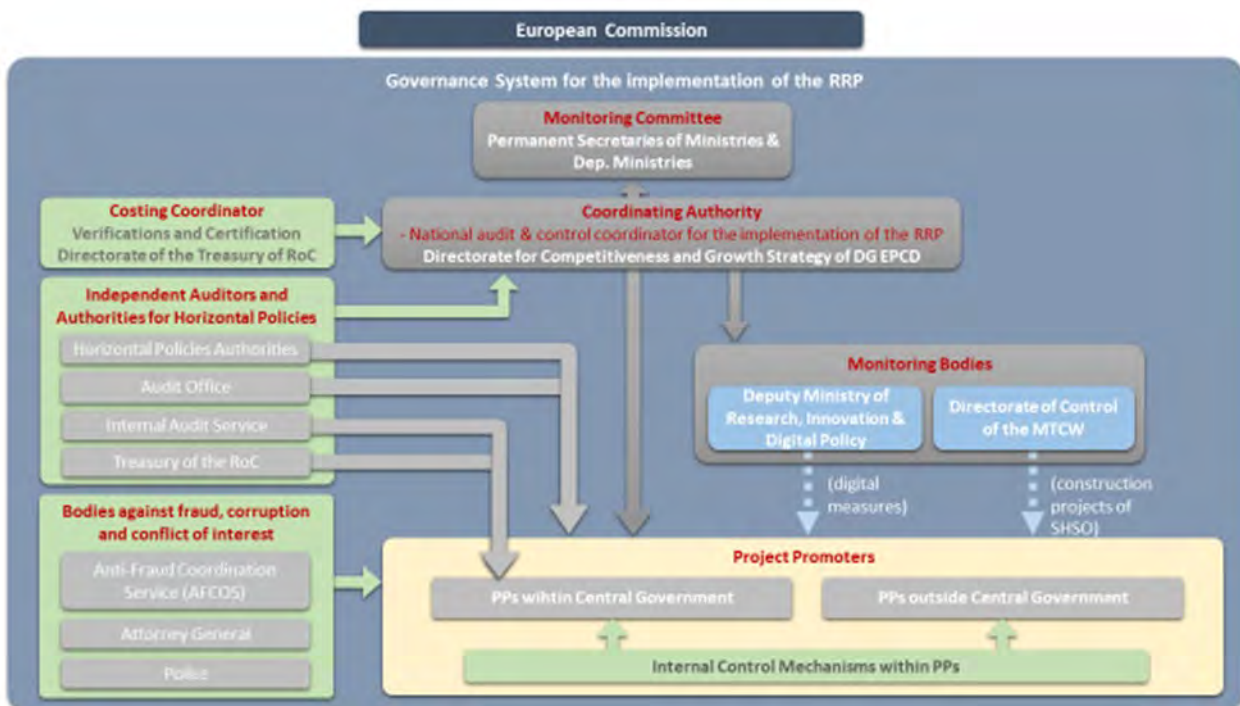
A. Ex ante controls:

- Control of compliance of the implemented measures with the horizontal national and European policies on public procurement and state aid by the competent national authorities,
- Verifications of the physical and financial object of investments and reforms of the RRP by the internal control mechanisms of the PPs,
- Verifications of the progress in achieving the milestones and targets of the RRP by the CA and the relevant MBs where they have been appointed (where additional verifications specifically for the RRP measures have been defined).

B. Ex post audits:

- Independent internal audit by the Internal Audit Service and independent external audit by the Audit Office through the Auditor General of the Republic.
- **Prevention, detection and control of the risks of fraud, corruption, conflict of interest and double funding.** *Description of the responsibilities of the National Anti-Fraud Coordination Service (AFCOS), the Attorney General's Office and the Police, in addition to the functions undertaken by the audit bodies and under the coordination of the CA, for the avoidance of such risks and their timely treatment in case they occur.*
- **Requests for Payment and Progress Reports.** *Description of the actions undertaken by the CA regarding the submission of the Payment Requests and their accompanying documents, as well as the submission of Progress Reports within the European Semester.*

- **Chapter 4:** Brief description of the functionalities that will be incorporated in the Monitoring Information System (MIS) to be prepared, that will support the implementation of the monitoring and control procedures of the RRP⁶³. A description of:
 - the needs and requirements that the MIS is required to meet, and its key operational characteristics,
 - the bodies that are involved in its update with all the necessary information and the bodies that have access to the system for the exercise of their duties,
 - the main components (modules) of the MIS (RRP planning, initiation and scheduling of investments and reforms, monitoring - including progress reports for monitoring purposes, IAS and AO audits, Payment Requests and Progress Reports to the EC),
 - the indicative timetable until the MIS is fully operational.



The MCS description is attached to the RRP (ANNEX 4). The official text is the complete document drafted in the Greek language.

7. Communication

Below we outline the RRP communication strategy, providing the general framework for the communication of the RRP, in line with the provisions and objectives set out in the RRF regulation and guidelines. The communication strategy and plan are based on the communication requirements outlined under the RRP Regulation (EU) 2021/241, taking also into account the relevant guidelines provided under Chapter III and Annex VIII of the Proposal for the Common Provisions Regulation COM (2018) 375 final 2018/0196 (COD).

Communication will start at the onset of the Plan and continue throughout its entire implementation period and beyond. Through strategically planned and targeted activities, the

⁶³ Until the start of the productive operation of the RRP MIS, the collection and processing of the data required in the context of the procedures is carried out through specially designed excel tools.

communication will raise public awareness regarding the European Union, the RRF funding and the Cyprus RRP. The communication strategy will ensure transparency regarding the implementation process of the RRP as well as the funding mechanisms highlighting and promoting the important role of the RRP in Cyprus' economic recovery and growth, green transition and digital transformation.

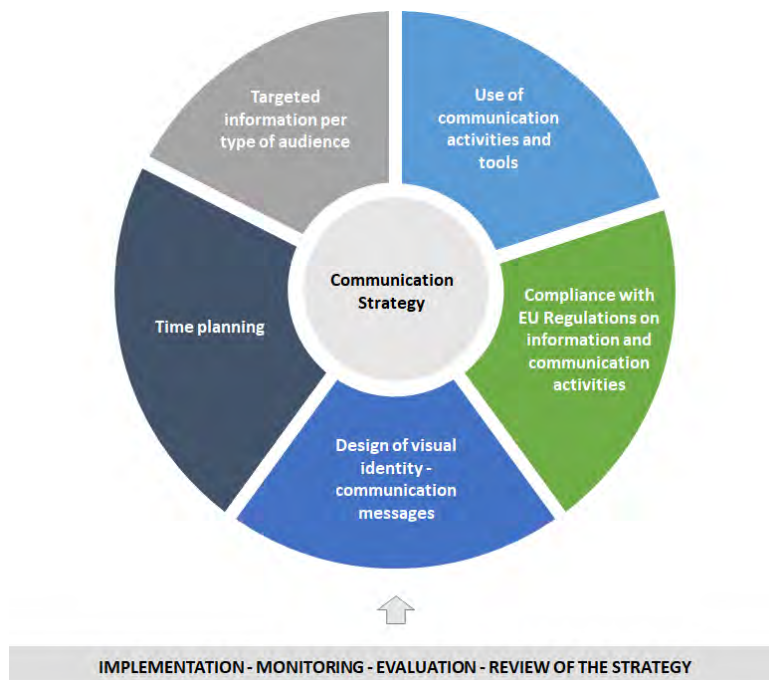
The underlying vision

The RRP aims to drive the country – its economy and society as a whole – into a new era. The green transition with energy-saving projects for households and businesses, the digital transformation with the rollout of 5G technology and the digitisation and digitalisation of government services; attracting private investment and revision of the legal framework will include strong incentives for private investments with a focus on innovation in all areas. An appropriate communication strategy is key to guaranteeing maximum impact of the RRP, raising awareness and ensuring recognition and tangible proof that the orchestrated actions of the European Commission (“EC” or “Commission”) and the National Authorities promote long-term, sustainable and inclusive economic growth and social cohesion.

The communication strategy will emphasise on storytelling so we can ensure that all communication messages resonate with citizens and businesses. It is important to turn to a communication model that provides enhanced and unforced experiences using technologically simple yet innovative ideas and thus, increase engagement. The aim is to drive a more human and emotional communication strategy that creates customised and comprehensive messages with focus on holistic and omnichannel experiences. RRP updates and customised messaging will be created and promoted as needed and delivery channels will be selected based on the needs of the target groups to ensure maximum absorption and comprehension of the messaging which will aim to demonstrate the value of the RRP in all areas addressed.

The general framework for RRF communication

The key elements considered in the development of the communication strategy and plan are presented in the framework diagrammatically presented below:



We envisage that the communication plan will breakdown and be planned in the following three phases, each of which has its own objective and duration:

- **Phase A (2021 - 2022):** Phase A includes a deep dive to the RRP communication strategy so as to develop detailed communication plans. During this phase flagship projects will be selected based on the final list of reforms and investments included in the Plan, key communication messages, activities will be designed, and main communication channels will be decided. Also, during this phase, it is envisaged that the Plan will be communicated in its entirety to the public to mark the commencement of its implementation;
- **Phase B (2021 - 2026):** Phase B consists of (1) the annual planning for the communication activities to be implemented in the year, (2) the implementation of the communication activities / campaigns tailored to the target audiences as planned and (3) the provision of information on the implementation and monitoring of the RRP to implicating bodies and enhance their capacity regarding their obligations around the Plan;
- **Phase C (2022 - 2028):** Phase C includes the implementation of communication activities which will highlight the results and impact of the RRP with an emphasis on the promotion of EU funding's role. Given that Phase C extends beyond the eligibility period of the Plan, some of the actions envisaged during this timeline will be covered by national funds.

The information will be communicated in a simple and understandable way through communication activities outlined below.

Outline of the communication strategy

The communication strategy aims to inform, promote and communicate the Plan's reforms and investments and their anticipated and achieved results, by providing true, accurate and updated information to the target audiences in an effective manner.

A carefully designed and developed communication plan is instrumental in delivering the vision described in the communication strategy. Therefore, in the development of the communication plan, a set of appropriate methodologies, tools, channels and activities will be carefully selected and tailored to the specificities of the RRP and the identified target audiences. All communication activities will ensure that the RRP results are made known and accessible to the appropriate target groups, at appropriate times, via appropriate methods, and that those who can contribute to the development, evaluation and uptake of its outcomes can be identified and encouraged to interact with the beneficiaries on a regular basis.

In order to maximise the impact of communication activities:

- Information used must be accurate;
- Activities should be coordinated closely with the Commission;
- The right audiences (stakeholder groups) should be targeted;
- Messages should interest the target audiences; and
- Activities should be appropriate in terms of resources spent, timing and expected impact.

While the key to a successful communication strategy is robust planning, it is noted that communication is a dynamic process that must be updated frequently to adequately communicate and promote the RRP as it unfolds throughout its implementation period.

The main elements of the communication strategy are its objectives; target audiences; communication activities and channels; planned budget; selected key projects; coordination arrangements with the Commission; and monitoring and evaluation. Also, the activities considered include establishing a visual identity, developing and maintaining online communication tools (website, social media and electronic newsletters), organising and participating events, designing printed promotional material, promoting outdoor advertising and establishing a media coverage strategy by sending clear communication messages.

Objectives

The main objectives of the communication strategy and plan of the RRP are as follows:

- Ensure transparency regarding the implementation process of the RRP as well as the funding mechanisms highlighting and promoting the role of the RRF;
- Raise public awareness and ensure maximum visibility of the Plan and its results within the identified target groups during and after the implementation period;
- Identify, employ and implement a wide and differentiated set of communication tools and events to maximise the results and impact of the Plan and the reforms and investments included within;
- Identify the communication KPIs useful to measure the effectiveness and efficiency of the activities conducted as part of the monitoring and evaluation task;
- Illustrate how the Plan will cooperate with other EC-funded projects or related initiatives; and
- Define how the communication activities will be administered.

Target audiences

The RRP will impact the lives of all Cyprus citizens therefore, its communication and promotion will need to reach a wide and diverse audience. For this reason, the DG EPCD will develop links and collaborate with several organisations to support the promotion of RRP news and upcoming events.

RRP target audiences can be clustered in three main categories:

- **Beneficiaries** - could be any public or private body (natural persons or legal entities) that have a direct and/or indirect benefit from the NRRP and thus could potentially be the final recipient of the EU funding (i.e. citizens via a support scheme) in the context of a reform or an investment and they are not engaged in the monitoring and implementation of the Plan.
- **Stakeholders** - the entire population of Cyprus is in principle a target group, which can be divided into specific sub-groups based on their respective direct and/or indirect benefits from, and thus interest on, the RRP. Examples of sub-groups of the RRP stakeholders include citizens - general public, decision makers, NGOs, enterprises, business associations, local authorities, educational/research institutions, etc.
- On the other hand, the **media** (television, radio, print and electronic media) act as propagators of the messages and play an important role in the continuous, accurate and timely information to the beneficiaries. Thus, this communication activity will aim to inform the beneficiaries about the Plan (progress, latest updates, results achieved) through the media.

The communication messages, activities and channels will depend on the type of target audience and the characteristics and interests in relation to the RRP of each target sub-group on a case-by-case basis.

Given that equal opportunities for all is one of the key priorities of the RRP, the national communication strategy will also consider how the communication activities will reach under-represented groups of the society, such as people with disabilities, and promote how the RRP invests in under-represented and marginalised people, including women, youth and elderly. In order to achieve this, the specific characteristics and communication needs of each target group and sub-group will be identified and factored in the design of appropriate communication

channels and materials. Examples of this type of communication measures could be the printing of communication material with the Braille method to inform the blind people for the RRP, the RRP website to be compatible with the Web Content Accessibility Guidelines for the visually impaired, the content prepared for the social media to be friendly and accessible to people with disabilities as well as communicate the RRP via sign language for the deaf.

Communication activities and channels

A comprehensive set of interrelated communication activities will be designed and implemented through appropriate channels of communication for the timely and effective reach out to the identified and selected target audiences.

The communication activities will:

- Be effective (i.e. suited to achieving the Plan's communication goals);
- Be proportionate to the scale of the Plan; and
- Address audiences that go beyond the Plan's own community (including the media and the public).

It is noted that the communication activities and tools presented below are indicative. During the development of the detailed communication plan, activities and tools that will be selected and designed based on the target audience and time conditions. We envisage that all the types of communication activities described below will be used in isolation and/or in combination during the implementation of the RRP to achieve maximum results as each has its own strategic importance and can target different target audience groups and sub-groups. In response to the global Covid-19 pandemic and its consequences, the communication activities will be flexible enough and could be organised and implemented fully or partly virtually (online) so that the Plan's promotion is not interrupted during this unprecedented crisis.

Communication activities and tools

The following key communication activities are envisaged in the national communication strategy:

- Communication activities to build awareness regarding the contribution of EU funding and the submission of the RRP to the EC;
- Communication activities to build visibility regarding the approved RRP and all the reforms and investments contained within;
- Communication activities to present achievements, results and impact of the RRP, including, where relevant, completion of key selected reforms and investments;
- Displaying the EU emblem at the premises of each implementation body involved in the implementation of the RRP; and
- Designing, creating, publicising and continuously updating the RRP website⁶⁴.

⁶⁴ Official Journal of the European Union, 2013, [Regulation \(EU\) No 1303/2013 of the European Parliament and of the Council](#)

In addition to the communication activities mentioned above, the following activities may also be implemented:

A. RRP visual identity and communication messages

A clear and uniform identity / branding regarding the RRP to ensure continuity, consistency and homogeneity between all communication activities so as to make them easily recognizable.

All communication activities (website, social media, leaflets, posters, banners, videos, attendance certificates, etc.) should correctly and prominently display the EU emblem with the funding statement “funded by the European Union- NextGenerationEU” as agreed in the Regulation on the RRF⁶⁵ as well as the emblem of the Republic of Cyprus. The EU emblem and reference to EU funding must be displayed in a way that is easily visible to the public and with enough prominence, in line with relevant EU guidance⁶⁶.

The messages in each case will be carefully designed to be simple and comprehensive so that they can be easily recalled. A prerequisite of a successful communication plan is to gain a good understanding of how the target audience will respond to a project’s message. Thus, the content of the communication messages will move away from technical language and statistics, towards featuring stories, appealing to emotions and demonstrating the benefits in people’s daily lives. The content of the communication messages will be determined on a case-by-case basis depending on the targeted audience group and in relation to the context of the reforms and investments communicated and promoted.

B. Media coverage

The communication tools available for the media coverage include the following:

- Marketing campaigns, e.g. broadcasting of TV and radio commercials, advertisements in magazines, print and electronic media;
- Public relations with the media, e.g. organising press conferences, publication of press releases in print and electronic media, interviews of executives of the competent services on television/radio/print and electronic media; and
- Promotional videos, e.g. TV commercials or documentary productions that will be displayed at events to be organised and uploaded on the website and social media.

C. Online communication tools

Electronic forms of advertising are envisaged to be used significantly for the communication and promotion of the RRP for two main reasons:

1. They reach a big percentage of the general public and can select multiple forms of targeting, such as gender, age, geographical location, behavioural patterns, etc. with a relatively low cost compared to other media; and
2. Their results are easily measurable and accurate. This allows the communication campaign to adapt while it is in progress and the conclusions after the end of the campaign are accurate and can help in better designing future campaigns.

⁶⁵ European Commission, 2021, [Commission Staff Working Document Guidance To Member States Recovery And Resilience Plans](#)

⁶⁶ European Commission, Interinstitutional Guide, [Graphics guide to the European emblem](#)

The *online communication tools* that may be used are presented below:

I. Website

A website will be developed to provide information on the Plan including its objectives, policy axis and reforms and investments contained within as approved by the EC, progress achieved to date, results on flagship projects, other highlights and upcoming events and activities. The website will be continuously updated to contain the latest information concerning the RRP. The dedicated web link will be shared with the Commission ex ante⁶⁷.

The website will be designed to offer a complete overview of the Plan and an easy access to all its activities. Thus, it is essential that the website is optimised for browsing on tablets and smartphones, so the website will be developed using a responsive design approach. It will be also compatible with the Web Content Accessibility Guidelines for accessibility for people with disabilities. Website efficiency will be underpinned by the criteria of user experience through a clear and accessible structure, content updating, accuracy in the content suitability, clean, professional, brand-driver design and technical search engine optimisation.

All involved bodies will be requested to deliver content for the website. The working language of the website will be Greek, but it is the ambition to have the most relevant parts accessible for non-Greek speakers and therefore have it translated in English as well. In addition, to increase the impact along the targeted audience, all involved bodies and organisations will be asked to mention the RRP and their involvement as well as, provide a link to the RRP website on their organisation website.

The RRP website will be the anchor for all communication activities related to the RRP and will serve as a central point of entry for all public material.

II. Social Media

Social media has become a very popular means of disseminating information fast across heterogeneous target groups. These online tools will strategically be integrated in the communication activities to enhance the Plan's reach to target groups and ensure an active interaction with them. The social media content will be developed so that they can be accessible by all people including marginalised groups, such as the persons with disabilities.

Therefore, social networks (Facebook, YouTube, Twitter, Instagram and LinkedIn) could be used to promote the Plan's achievements, news and outcomes. DG EPCD will be responsible to moderate all social profiles, that means, control and filter inadequate contents and monitor the suitability and relevance of information to be published.

III. Electronic Newsletters

Electronic newsletters ("e-newsletters") are an easy and direct way of communicating information that could be sent by e-mail or be further broadcast by other electronic channels such as the social networks and the website.

The e-newsletters can be synthesised in a way that provides relevant information in a summarised and appealing way to keep the target audience informed and engaged. The content may include infographics on results / impact achieved, key developments on flagship reforms and investments, success stories, etc.

D. Events

To ensure the RRP's visibility, events and seminars may be organised during which the target groups can be informed of the Plan (in its entirety or for specific reforms and investments under

⁶⁷ European Commission, 2021, [Commission Staff Working Document Guidance To Member States Recovery And Resilience Plans](#)

implementation), the positive role of the European Funds and the EU in the enhancement of the daily lives of Cyprus citizens, etc. If possible, some events may be coordinated and/or joint events with EC representation in Cyprus.

The media may also be invited as information multipliers, to cover and promote the events. It is a good practice to distribute printed communication material during the events, as well as promotional items, while ideally, they can be combined with parallel marketing campaigns in the media.

E. Printed communication material

The production of printed communication material such as leaflets, posters and roll-up banners both in Greek and English will widen the audience reached by the communication activities, allowing other potentially interested stakeholders to be informed about RRP.

The content of the printed communication material will be written in simple and easily understandable language while providing the contact details of the competent authorities, as well as the relevant website where interested parties can find more information.

The material could exist in electronic format to be disseminated via e-mail and/or posted on the website; furthermore, there will be printed versions to be used for conferences and live events. Information presented in the printed material will be adapted to additional formats such as posters and roll-up banners. Billboards or plaques for large projects and A3 posters for smaller projects could be also located at a location visible to the public to inform about the EU funding as outlined under the sub-section “RRP Visual Identity”.

F. Outdoor advertising

Outdoor advertising is a dynamic measure of widespread dissemination of information to the beneficiaries. This information measure will be used alone or as complementary to other communication activities in order to strengthen it and create the conditions for the maximum possible recollection of RRP messages.

The duration and frequency of the display of the content of the advertisement is perhaps one of the key benefits of this activity since the messages can be transmitted to the target groups 24 hours a day for a long time.

In addition to the outdoor advertising activities used in previous EU programmes (i.e. placement of billboards in central locations, placement of posters at bus stations and the bus facelifts), other innovative ways of outdoor advertising could be the placement of billboards or picture projections on public buildings/governmental offices as well as the facelifts of these buildings/offices in all towns. This is an affordable option that will reach a mass amount of people categorised under several target groups.

The following table presents a summary of the communication activities and the possible tools that could be used to reach the target audiences outlined above.

Communication Activity	Indicative Communication Tool	Target Audience
Media coverage	<ul style="list-style-type: none"> ● Marketing campaigns through media ● Public relations with the media ● Promotional videos 	
Online communication tools	<ul style="list-style-type: none"> ● Website ● e-Newsletter 	

Communication Activity	Indicative Communication Tool	Target Audience
	<ul style="list-style-type: none"> • Social media 	Beneficiaries Media
Events	<ul style="list-style-type: none"> • Informational/Promotional Events • Seminars/workshops/trainings 	
Printed communication material	<ul style="list-style-type: none"> • Leaflets • Posters • Roll-up banners 	
Outdoor advertising	<ul style="list-style-type: none"> • Billboards • Posters at bus stations • Bus and public buildings facelifts 	

Planned budget

A budget has been estimated for the implementation of the envisaged communication strategy. For the budget preparation, we used a common methodology for calculating costs factoring in the experience of implementing similar initiatives (i.e. communication campaigns for Structural Funds 2014-2020, “Urban Revitalisation”, “Addressing Coronavirus Pandemic Consequences” and “Social Inclusion”) and current market prices.

The total estimated budget of the RRP communication strategy is one (1) mln euro with a breakdown as presented in the table below:

Activity	Amount (in €)	Percentage of total budget (%)
Phase A	60.000,00	10%
Phase B	740.000,00	70%
Phase C	200.000,00	20%
Total	1.000.000,00	100%

Indicatively, the estimated budget may be further broken down into the following activities: outdoor advertising 10%, media coverage (TV, radio) 50% and online communication tools (website, social media, e-newsletter) 40%.

It is noted that Phase C continues after the RRP eligibility period therefore, some actions envisaged under this phase will be covered by national funds.

Selected key projects

The RRP has been developed around five (5) policy axis, each of which contains a number of reforms and investments. Each policy axis has a distinct role to play in the recovery and resilience

of the Cyprus economy therefore, it is envisaged that key reforms and investments (projects) will be selected from all policy axis for communication and promotion purposes.

The selection of the key projects will be based on:

1. Anticipated quantitative impact on the Cyprus economy, society and environment;
2. Anticipated qualitative (long-lasting and positive) impact on the daily lives of Cyprus citizens and businesses;
3. Significance of the overall investment made for their implementation;

Selecting a few key reforms and investments aims to communicate and promote provides them with the necessary publicity to gain further buy-in, acceptance and adoption.

It is envisaged that selected key projects will include some that promote energy efficiency, clean transport (electromobility), diversification of the economy, entrepreneurship, research and innovation, employability as well as upskilling and reskilling of the active and inactive workforce.

Also, reforms related to the development and adoption of new policies as well as new and / or simplified and updated regulatory framework and, which will create the conditions for an improved business environment (e.g. complete revision of the Companies' Law), enhanced services to the public (e.g. transformation of the department of social insurance) and better quality of life (e.g. new law on flexible working) will also be actively promoted.

Also, reforms and investments related to the digital transformation of the country (e.g. digitisation of the public services) will also be among the key projects to be promoted through several communication activities.

Implementation and monitoring arrangements

The DG EPCD in its role as the Coordinator of the RRP has the overall responsibility for the implementation of the communication strategy and plan, coordinating and supervising all communication activities. In this context, the DG EPCD will:

- Set up the most appropriate mechanisms and tools for maximum visibility and impact in collaboration with an appropriate advertising agency;
- Ensure that the communication material and activities are designed in accordance with the communication strategy and are implemented in a way that achieves the widest possible media coverage using various forms and methods of communication at the appropriate level;
- Coordinate, monitor and evaluate the implementation of the communication activities;
- Be responsible for the creation and maintenance of the RRP website as well as, review of the communication material to ensure cohesion;
- Guide all involved bodies about the implementation of the communication strategy and ensure that all of them contribute to communicating specific reforms and investments within the target groups within their reach; and
- Inform the EC in a timely manner regarding the communication activities (implemented and upcoming ones) as well as their estimated results.

The DG EPCD will appoint an Information and Communication Officer (ICO), who will be responsible for implementing the communication plan and will act as the contact point between the EC and the National Authorities. The ICO will be coordinating the communication measures and the development of the communication material including the maintenance of the dedicated website.

All bodies engaged in the monitoring and implementation of the Plan should follow the communication guidelines to be set out by the DG EPCD.

Coordination arrangements with the Commission

The DG EPCD, through the appointed ICO who will coordinate the development and implementation of the RRP communication plan, will be in close collaboration with the EC in order to fulfil the requirements of the national communication strategy and communicate progress made against the communication plan in a timely manner. The Cyprus ICO will participate in the INFORM EU network as well as in the national network of ICOs and other stakeholders for all EU co-funded programmes, to be established in accordance with the CPR.

Close collaboration between the DG EPCD and the EC through the EC Representations and European Parliament Liaison Offices in Cyprus; as well as Europe Direct Information Centres and other networks will facilitate the exchange of information on the results of the implementation of the communication strategy, the exchange with regards to the experience in implementing the information and communication measures, the exchange of good practices and recommendations to enhance the outreach and impact of the communication activities. It will also help in amplifying the message of the RRP for example by notifying an event or the successful completion of a milestone through its dedicated communication tools. To this end, the Cypriot Authorities will share best practices with other Member States and the EU institutions, especially via the INFORM EU network. In addition, a joint event will be organised by DG EPCD and EC representation in Cyprus to promote the objectives of EU funding via the RRF instrument in Cypriots daily lives.

As previously mentioned, if possible, some events may be organised, in coordination, or as joint events with EC representation in Cyprus. Such events will be organised in close collaboration with the Cyprus ICO.

DG EPCD will also seek to enhance current links and synergies with other initiatives to ensure consistency. Therefore, a strong communication process is planned with other related programmes throughout Europe that will assist in the adoption of good practices extracted from other European initiatives that share common objectives. Contacts with officers responsible for other relevant initiatives will be pursued to join forces in cooperating and creating partnerships to tackle the common challenges and to further their common interests and future. The DG EPCD will also be represented in events organised by other EU funded programmes to communicate the results of the Plan to other countries as well as to exchange knowledge regarding the objectives addressed through its implementation.

Monitoring and evaluation

To ensure the high-quality implementation of the communication strategy and plan, communication activities will be monitored through a set of key milestones (qualitative indicators) and targets (quantitative indicators) which will be determined during Phase A as part of the preparation of the detailed communication plan. The ICO will be responsible to liaise with other involved parties, collect necessary data and monitor the set of indicators so as to measure the degree of achievement against stated objectives and drive corrective actions and/or revisions that may be required.

The evaluation of communication activities will determine the degree to which the communication objectives have been reached, and the relationship between the outcomes and the efforts made to reach the stated goals. This analysis will help understand enablers of, and barriers to, successful communication and will serve to refine the communication activities as the RRP unfolds.

PART 4

OVERALL IMPACT

PART 4: OVERALL IMPACT

1. Macroeconomic and social outlook

Real output in 2020 contracted by 5.1% in real terms, as opposed to a 3.1% real growth in 2019. The baseline scenario projects that the economy will enter into a recovery trajectory from 2021 onwards. Real GDP growth is forecast at 3.6% in 2021. Growth in 2021 is still supported by government spending and will be reinforced by a normalisation in private spending and investments, driven by the implementation of a significant number of projects in the areas of tourism, energy, transport and education and include, inter alia, the construction of marinas and a casino resort and an infrastructure development of the University of Cyprus. The growth forecast for 2021 has been revised downwards since in the autumn forecasting round there was a slower than expected recovery in the tourism sector. Indeed, tourist arrivals in numbers for 2021 are anticipated to double compared to the 2020 levels but remain significantly lower than the record performance of 2019, fuelled particularly by the UK, Russia, Germany and other European markets.

A little more than a year since the onset of the COVID-19 pandemic, medium-term forecasts are still surrounded by uncertainty, mostly depending on the evolution of the pandemic and the roll-out of the vaccination program. In addition, a key determinant to growth is, inter alia, the tourism sector and how fast it recovers. The fact that vaccines have been discovered as anti-virus protection, consists of a pivotal step towards setting the pandemic under control. However, new virus variants pose an additional threat on the effectiveness of the vaccination rollout, which is an important factor in terms of reinstating confidence.

Vaccination programmes commenced in the beginning of the year but are developing in an uneven manner across EU countries and around the world, plagued by production shortages and hiccups surrounding the safety of the vaccines. In Cyprus, the vaccination programme is being carried out with relatively adequate speed, meeting the target goals set by the Ministry of Health. Daily coronavirus infections in Cyprus have more or less stabilised, after the two weeks lockdown imposed in late April. However, they still remain at relatively high levels while hospitalisations of severe cases that need intensive care have been slightly lower, but not yet to the desired levels. Hence, the pressure on the health care system is still high and Cyprus, like a number of other European counterparts, is in the midst of restrictive measures that are deemed severe enough for a significant segment of economic activity. The GDP growth prospects in 2021 remain positive after deriving positive lessons from countries that have started to see significant improvement following their vaccination schedules, whereby having covered a significant share of their population (60% and over of the adult population, at least for the first dose of the vaccine).

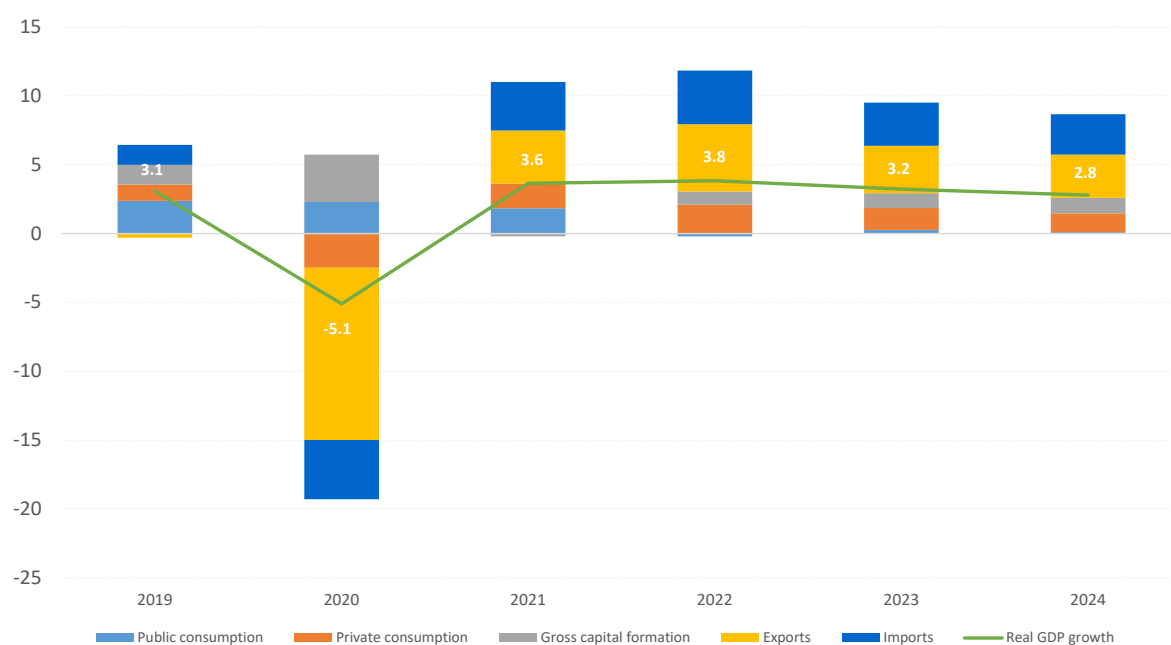
Developments in the labour market are surrounded by uncertainty for 2021 given that most government employment supporting schemes are expiring in June. The baseline macroeconomic scenario foresees a reversal of the 2020 trend with employment growth back to a positive path in 2021, at a rate of about 0.7% in terms of persons employed. The improvement in the labour conditions is expected to be slow and closely following the recovery of the economy from the 2nd half of 2021 onwards. Developments will depend to a large extent on the tourism sector, since the main reduction in employment in 2020 was in the tourist industry. At the same time, the average annual unemployment rate is envisaged to pursue a downward path, pursuing a similar pace as economic growth, but with a delay, adhering to the norm that unemployment usually follows economic activity with a time lag. The declining path of unemployment is projected to maintain pace, falling to 7.2% in 2021.

Inflation, measured by the CPI, is estimated to turn positive in 2021 exhibiting an increase of 1.2%.

Medium-term Growth Prospects 2022-2024

In the medium-term period 2022-2024, the outlook of the economy is forecast to be robust with increased growth prospects. The macroeconomic environment is expected to continue improving and maintaining the Cyprus economy sound with investment and domestic demand to be the main drivers to growth. Consumption expenditure will continue to have a positive contribution to growth and remain strong but with a slowdown compared to 2021, due to improving employment prospects and better access to finance, rather than wage increases. From 2022 onwards, external demand will become more significant as tourism gradually recovers. Imports are expected to grow in line with consumption and investment. All of the above, combined with the improved expectations regarding investment opportunities in the energy and tourism sectors, including the RRF, create a promising outlook for the prospects of the Cyprus economy. Real GDP growth is forecast to accelerate to about 3.8% in 2022 due to: a) improved tourism performance, b) higher private consumption due to a continued improvement in the labour market and c) improved investment expenditure due, inter alia, to the implementation of RRF projects. Afterwards, growth will decelerate to 3.2% in 2023 and 2.8% in 2024, where the tourism sector is envisaged to return to its 2019 levels. From a sectoral perspective, growth is expected to originate mainly from retail trade, shipping, construction, manufacturing, other business services sectors and, gradually, tourism.

Contributions to GDP growth 2019-2024



Medium Term Framework, 2020-2024

<i>change in percent</i>	2020	2021	2022	2023	2024
Real GDP	-5.1	3.6	3.8	3.2	2.8
<i>Government Consumption</i>	13.0	8.7	-1.0	1.3	0.5
<i>Private Consumption</i>	-3.9	2.8	3.3	2.5	2.2
<i>GFCF</i>	-2.1	3.5	4.8	5.4	5.5
<i>Exports</i>	-17.4	6.2	7.6	5.2	4.6
<i>Imports</i>	-5.8	4.8	5.3	4.2	3.9
Deflator	-0.7	1.2	1.5	1.5	2.0
Nominal GDP	-5.8	4.9	5.4	4.7	4.8
HICP	-1.1	1.2	1.5	1.5	2.0
CPI	-0.6	1.2	1.5	1.5	2.0
Employment	-0.6	0.7	1.5	2.5	2.5
Unemployment rate (LFS)	7.6	7.2	6.7	6.0	5.5

Source: CYSTAT, MOF

Inflation, measured by the CPI, is projected to accelerate and increase by 1.5% in 2022-23 and rising further to 2% in 2024.

From 2022 onwards, employment is projected to grow at a rate of 1.5%-2.5%, and it is foreseen to continue improving, as long as the economy performs a similar path.

The declining path of unemployment is projected to maintain pace during 2022-2024, falling to 6.7% in 2022, 6.0% in 2023 and to 5.5% in 2024. The reduction of the unemployment rate is triggered by improved economic activity, significant capital investment, resilient private consumption and the gradual return of tourism back to the 2019 levels in 2024, all leading to a sustained job creation.

2. Macroeconomic Impact of the Plan

2.1 Introduction

The Impact Assessment report was prepared by the Economics Research Centre of the University of Cyprus. The project's team comprised of Elena Andreou (Department of Economics and Economics Research Centre, University of Cyprus), Neophyta Empora (Economics Research Centre), Elias Giannakis (Energy, Environment and Water Research Centre, The Cyprus Institute), Theofanis Mamuneas (Department of Economics, University of Cyprus), George Syrichas (Economics Research Centre), Theodoros Zachariadis (Energy, Environment and Water Research Centre, The Cyprus Institute). Anastasia Allayioti (Kings College London), Vasiliki Bozani (Economics Research Centre) and Dario Pontiggia (Economics Research Centre) provided excellent research assistance.

Under the Recovery and Resilience Plan (RRP), Cyprus is expected to draw significant funds totalling around 1,2 bln euro in the period 2021-2026. The economic impact assessment of the Cypriot RRP has provided estimates of the Plan's macroeconomic impact in the short, medium and long term. The analysis adopts several complementary

methods and techniques – a Production Function approach, econometric models, and an Input-Output framework – to obtain multiple perspectives on the potential impacts.

Our Production Function (PF) approach evaluates the effects of RRP measures across all time horizons and accounts for reforms and it is therefore considered the primary method for this impact analysis. Results show that the RRP can increase the GDP of Cyprus by about 3% in the short-term and by around 7% in the medium-term), compared to the baseline development of the economy without the RRP. Reforms, among others, of public and local administration, the judicial, and the labour market would significantly affect productivity and GDP growth, in the medium-term and especially in the long-term. In the short-term, GDP growth is mainly induced directly by RRP investments and to a lesser extent by an increase in productivity and by additional employment stimulated by the Plan. In the medium-term, the effect of productivity becomes stronger due to the full implementation of reforms. In particular, the contribution of productivity to GDP and employment rises from 10.6% and 13.2% in the short-term and 23.5% and 29.3% in the medium-term. The Plan also increases employment by more than 2.5%, or by around 11,000 new jobs during the period 2021-2026, which can significantly reduce the unemployment rate in Cyprus.

The positive effects of the RRP are projected to be largely maintained in the long-term. GDP levels are expected to be 16.5% higher 20 years ahead (i.e. in 2041) compared to a scenario without RRP implementation. This is mainly due to the lasting contribution of productivity (reforms), if all reforms foreseen in the RRP are realised. Reforms account for around 60% and 75% of GDP and employment increase, respectively relative to the baseline scenario.

The results of the econometric analysis are broadly in line with the above findings and show that the maximum effect of the RRP on the growth rates of GDP and employment is realised in 2025-2026, which coincides with the end of the period of implementation of the RRP. Finally, the Input-Output analysis offer insights into the sectors of the economy that will be most significantly affected and assessed the broader welfare impacts of the Plan's green economy measures of the RRP due to environmental co-benefits.

2.2 Executive Summary

Under the Recovery and Resilience Plan (RRP), Cyprus is expected to draw significant funds totalling around 1,2 bln euro over the period 2021-2026. This report analyses the economic impact assessment from the implementation of the RRP. In particular, it provides estimates of the short-medium- and long-term macroeconomic effects of the RRP. The analysis adopts several complementary methods and techniques - Production Function, econometric models, and an Input-Output framework – in order to assess the impact of all the measures included in the Plan.

The first method uses a Production Function - Growth Accounting framework to predict the evolution of the main macroeconomic variables (output and employment) from implementing the Recovery and Resilience Plan (RRP) of Cyprus. This approach evaluates the effects of RRP measures across all time horizons and accounts for reforms and it is therefore considered the primary method for this impact analysis. RRP measures lead to changes in the output growth of the economy that come through changes in the human capital and the capital inputs, adjustments in the labour input (conditional on the capital stocks and human capital), as well as through changes in the productivity growth.

The effects of the measures included in the RRP of Cyprus on output and employment are assessed for the short-term (2 years ahead), medium-term (5 years ahead) and long-term (20 years ahead) periods. The results (summarised in Table 1.1) show that the RRP can increase the level of the Cyprus GDP by about 3% two years ahead and by around 7% five

years ahead compared to the baseline scenario (non-implementation of the Recovery Plan). In the short-term, GDP increase is caused by 69.5% directly from RRP investments, by 10.6% from an increase in productivity (reforms) and by 19.9% from additional employment. In the medium-term, RRP measures contribute to GDP increase by 56.6%, productivity by 23.5% and additional employment by 19.9%, relative to the baseline scenario.

Growth stimulated by the RRP is expected to be maintained in the long run: GDP levels are expected to be 16.5% higher 20 years ahead (i.e. in 2041) compared to a scenario without RRP implementation. Around 60% of this increase comes from productivity improvements relative to the baseline scenario if all reforms foreseen in the RRP are realised.

Focusing on the period of the implementation of the Plan, the 7% increase in GDP, relative to the baseline scenario, implies on average an additional 1.2 percentage points of GDP growth per year during 2021-2026. During the same period, the Plan increases employment by more than 2.5%, or by around 11.000 new jobs, which can significantly reduce Cyprus's unemployment rate.

Table 1.1: Economic impact of the RRP

		Quantification of the impact					
		% difference from policy neutral baseline					
		Short-term (2 years ahead)		Medium-term (5 years ahead)		Long-term (20 years ahead)	
		GDP	Employment	GDP	Employment	GDP	Employment
Overall		2.9%	1.1%	6.8%	2.6%	16.5%	6.2%
Priority axis 1	Public health, civil protection and lessons learned from the pandemic	4.4%	5.6%	3.7%	3.3%		
Priority axis 2	Accelerated transition to a green economy	15.9%	19.8%	13.7%	14.1%		
Priority axis 3	Strengthening the resilience and competitiveness of the economy	34.8%	43.4%	26.5%	33.9%		
Priority axis 4	Towards a digital era	5.9%	7.4%	4.8%	9.0%		
Priority axis 5	Labour market, education and human capital	8.5%	10.6%	7.8%	10.4%		
Total Contribution of the components		69.5%	86.8%	56.6%	70.7%	20.0%	25.0%
Productivity Contribution (not quantified RRP measures)		10.6%	13.2%	23.5%	29.3%	59.8%	75.0%
Labour Contribution		19.9%		19.9%		19.9%	
Total Contribution to Overall Impact		100%	100%	100%	100%	100%	100%

The impact assessment of the RRP on key macroeconomic indicators of the Cyprus economy was also evaluated using alternative econometric time series models to capture the dynamic effects of the RRP. We use various VAR specifications and estimation methods, such as Structural VARs, FAVARs and frequentist and Bayesian VARs. Using these alternative VAR-type models we examine the difference between the two scenarios,

the baseline/unconditional forecasts of key macro variables such as GDP and Employment growth (without the RRP) vis-à-vis the conditional forecasts of the aforementioned variables that include the RRP. We quantify the dynamic difference between the conditional forecasts from the baseline forecasts every year, identifying and quantifying the periods with the most significant impact. In addition, we estimate but also how long will the RRP impact last within the long-term of 20 years ahead, *ceteris paribus*.

More precisely, these dynamic models forecast the conditional path of key macroeconomic indicators, GDP and Employment growth, with the RRP which are compared with the baseline forecasts without the RRP. Figures 1.1a and 1.2a below, show these forecasts for these two scenarios for GDP and Employment growth, respectively. In addition, Figures 1.1b and 1.2b show the corresponding percentage difference between these two scenarios which quantifies the impact of the Cypriot RRP plan, for GDP and Employment, respectively. We find that the maximum effect of the RRP on the growth rates is realised in 2025-2026, which coincides with the end of the medium-term period of the RRP.

The econometric approach employs a number of model specifications and channels of the impact of the RRP and yields respective ranges of GDP and Employment of 3.4-5.6 and 1.8-2.8 percentage difference from the policy-neutral baseline (without the RRP) over the medium-term horizon, up to 2026. The econometric methods yield results, which are comparable to the main method of this report, the Production Function approach without reforms which finds the corresponding figures to be 4.8% and 1.8%, for GDP and Employment, over the medium-term. Moreover, we find that the impact of the RRP on GDP and Employment growth rate will last until 2030, as shown in the Figure below, *ceteris paribus*. It is worth noting that these econometric models assume mean reversion and do not explicitly capture the impact of reforms compared to the Production Function method.

Figure 1.1a: GDP growth forecasts based on the RRP and baseline

Figure 1.1b: Difference in the GDP growth forecasts between the RRP and baseline

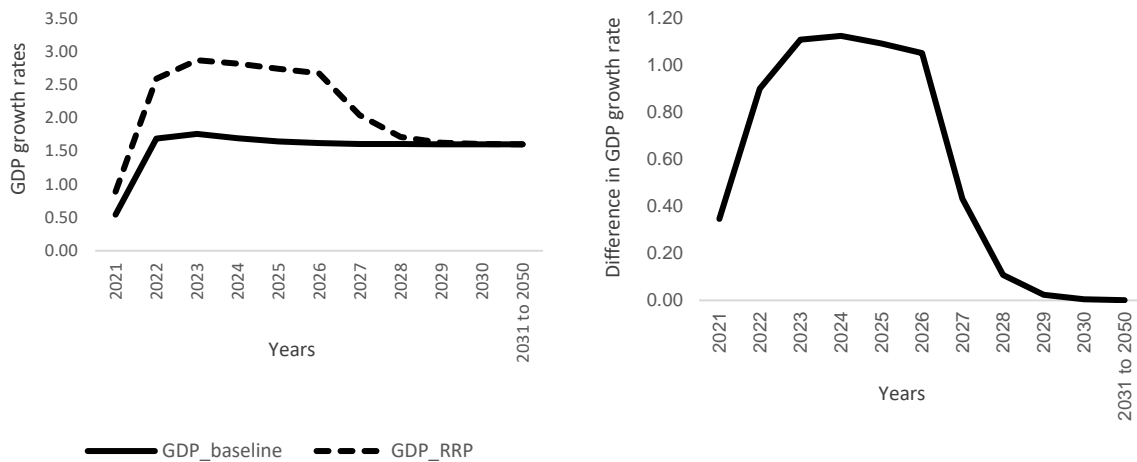
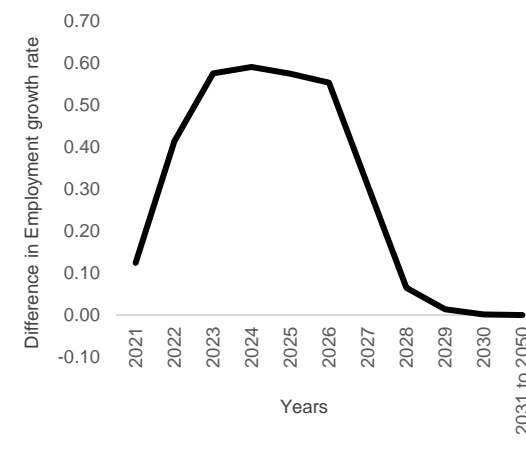
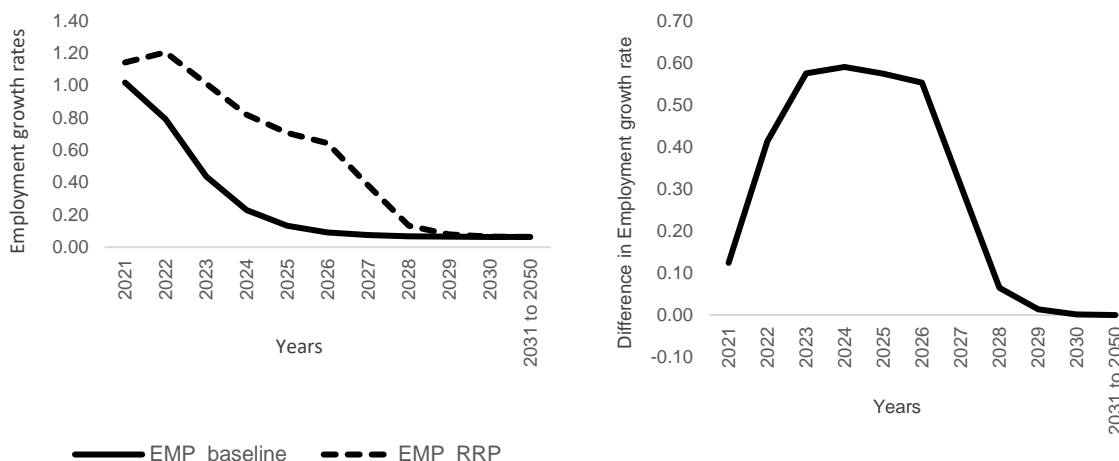


Figure 1.2a: Employment growth forecasts based on the RRP and baseline

Figure 1.2b: Difference in the Employment growth forecasts between RRP and baseline



The third method analyses the results of the economic impact assessment of the reforms and investments under all priority axes of the RRP based on a Leontief demand-driven Input-Output (IO) model that has been developed and applied for Cyprus and covers all sectors of the economy. IO is a quantitative technique for studying the interdependence of production sectors in an economy over a stated period, which has been extensively applied for policy impact evaluation, technical change analysis and forecasting. This assessment examines short-term and medium-term impacts, i.e. periods for which the input-output model can conduct simulations with reasonable reliability; assessments for the longer term would be less reliable and have not been considered.

According to the IO simulations, RRP investments increase GDP level by about 1.5% in the short term and 3.8% in the medium term. The GDP estimates under this method are close to the corresponding figures of the other two methods excluding reforms. In contrast, employment figures are higher and could be thought of as the upper bound. Despite the limitations of the IO approach for assessing policy impacts in the long term, it offers

insights into the sectors of the economy that will be most significantly affected by the RRP such as for instance the green measures, among others. Chapter 4 presents results of these sectoral impacts.

2.3 Economic Impact Assessment of the Recovery and Resilience Plan of Cyprus

Introduction

This chapter evaluates the effects of the Recovery and Sustainability Plan on the Cyprus economy, in the context of a Production Function - Growth Accounting framework. To assess the impact of the RRP measures, it is necessary to map them with the appropriate variables of the model in order to identify the main channels through which they affect the economy. To this end, the RRP measures were matched with major investment categories in the economy that they are likely to affect.

The results show that the implementation of the RRP could potentially increase the level of GDP and employment by 6.8% and 2.6% respectively by 2026, compared to the baseline scenario, which is defined as the state of the economy without the implementation of the Plan. This implies an additional GDP growth of approximately 1.2 percentage points on average each year for the period 2021-2026. The 2.6% increase in employment, corresponds, *ceteris paribus*, to the creation of around 11,000 new jobs which can significantly reduce the unemployment rate in Cyprus.

After 2026, when the disbursement of resources ends, the economy gradually returns to the initial state of long-term equilibrium. However, the positive effects on GDP and employment remain for even 20 years later (16.5% increase in the level of GDP and 6.2% in employment by 2041, compared to the baseline scenario). This is mainly due to the positive lasting contribution of productivity improvements, if all reforms foreseen in the RRP are realised. The effect of Infrastructure and Other physical capital that also remains in the long - term since the depreciation rates of these two capital stocks is very low.

In summary, the following priority axes and components are analysed:

- Priority axis 1: Public health and civil protection - lessons learned from the pandemic (Components: 1.1. Resilient and effective health system and enhanced civil protection)
- Priority axis 2: Accelerated transition to a green economy (Components: 2.1 Climate neutrality, Energy efficiency and renewable energy penetration; 2.2 Sustainable transport; 2.3 Smart and Sustainable Water Management)
- Priority axis 3: Strengthening the resilience and competitiveness of the economy (Components: 3.1. New growth model and diversification of the economy; 3.2. Enhanced research and innovation; 3.3. Business support for competitiveness; 3.4. Public and Local Administration Reform, Judicial reform and Anti-corruption reform; 3.5. Safeguarding fiscal and financial stability)
- Priority axis 4: Towards a digital era (Components: 4.1. Upgrade infrastructure for connectivity; 4.2. Promote e-government)
- Priority axis 5: Labour market, education and human capital (Components: 5.1. Educational system modernisation, upskilling and retraining; 5.2. Labour market).

Methodology

Economic Model

It is assumed that the production process of the Cyprus economy follows a Cobb-Douglas production function of the form

$$Y_t = A_t L_t^{a_1} H_t^{a_2} \prod K_{it}^{b_i}, (1 < a_i, b_i > 0) \quad (1)$$

where Y is the quantity of output, A is the level of productivity or exogenous technical change, L is the labour input quantity, H is the average level of human capital, K_i are the quantities of capital inputs and the parameters a_i and b_i are the output elasticities. In order to calibrate our economy, we have to specify the output elasticities, level of productivity and the quantities of output and inputs. The quantity of output Y , measured as value added in constant 2010 prices, the labour input measured in man hours and the level of human capital measured as the population average of accumulated education and health expenditures in constant prices, are obtained from Eurostat. In addition, we have obtained and constructed investment quantities in constant 2010 prices of the following capital inputs: Information and Communication Technology (ICT), Research and Development (R&D), Infrastructure, and Other physical capital. To construct the capital stocks, we use the perpetual inventory method assuming a constant depreciation rate δ_i for each capital stock.⁶⁸ Thus, the capital stock i , at time t , is given by

$$K_{it} = I_{it} + (1 - \delta_i)K_{it-1} \quad (2)$$

The output elasticities a_i and b_i used to calibrate the model are obtained from the literature (various sources, see Section 2.3, Table 2.3) and are summarised in Table 2.4. Assuming that firms maximising profits, then the sum of labour and capital elasticities should be equal to the observed labour and capital income shares, that is

$$\begin{aligned} \sum a_i &= s_L, \\ \sum b_i &= s_K \end{aligned} \quad (3)$$

where s_L is the labour income share and $s_K (= 1 - s_L)$ is the capital income share. In order to obtain an estimate of the productivity change we calculate the productivity change residually, as the output growth minus the weighted average of all inputs growth, where the weights are the output elasticities,

$$\widehat{A}_t = \ln \frac{A_t}{A_{t-1}} = \ln \frac{Y_t}{Y_{t-1}} - a_1 \ln \frac{L_t}{L_{t-1}} - a_2 \ln \frac{H_t}{H_{t-1}} - \sum b_i \ln \frac{K_{it}}{K_{it-1}} \quad (4)$$

Expressing equation (1) in a growth form we have

$$\widehat{Y}_t = \widehat{A}_t + a_1 \widehat{L}_t + a_2 \widehat{H}_t + \sum b_i \widehat{K}_{it} \quad (5)$$

where a variable with $\widehat{}$ denotes growth rate.

In order to obtain estimates of the output growth of the economy, first we assume that the economy is in a steady state and output growth of the economy will change due to changes of investment funded by the government which leads to changes in human capital and capital inputs (equation 2) and second that firms adjust the labour input by maximising profits conditional on the capital stocks and human capital,

⁶⁸ For details on the construction of depreciation rates see the data section and Table 2.1.

$$\max_L P_t A_t L_t^{a_1} H_t^{a_2} \prod K_{it}^{b_i} - w_{Lt} L_t$$

where P_t, ω_{Lt} are the prices of output and labour respectively. Then, the conditional labour demand is given by

$$L_t = a_1^{\frac{-1}{a_1-1}} A_t^{\frac{-1}{a_1-1}} \left(\frac{w_{Lt}}{P_t} \right)^{\frac{1}{a_1-1}} H_t^{\frac{-a_2}{a_1-1}} \prod K_{it}^{\frac{-b_i}{a_1-1}}$$

Assuming that the real wage remains constant over time ($\omega_{Lt+1}/P_{t+1} = c$) the labour growth at period $t+1$, is given by

$$\widehat{L}_{t+1} = \frac{1}{1-a_1} \left(\widehat{A}_{t+1} + a_2 \widehat{H}_{t+1} + \sum b_i \widehat{K}_{t+1} \right) \quad (6)$$

and the output growth by

$$\widehat{Y}_{t+1} = \widehat{A}_{t+1} + a_1 \widehat{L}_{t+1} + a_2 \widehat{H}_{t+1} + \sum b_i \widehat{K}_{t+1} \quad (7)$$

Equations (6) and (7) are used to simulate the labour and output growth of the Cyprus economy for a two year period ahead, a five year period ahead and for 20 years ahead.

Data

To assess the impact of the RRP measures, it is necessary to map them with the appropriate variables of the model in order to identify the main channels through which a particular measure affects the economy. To this end, the RRP measures were examined on the basis of their description in the RRP of Cyprus and were subsequently matched with the major investment categories in the economy that they are likely to affect. These are⁶⁹:

- Information and Communication Technology (ICT) equipment
- Research & Development (R&D) and Computer software & databases (CS&D)
- Infrastructure⁷⁰
- Other physical capital (OPC)⁷¹

⁶⁹ We consider total investment. That is, we do not distinguish between private and public investment as long as it is funded by the government.

⁷⁰ For the construction of investment in Infrastructure the data are from the general government expenditure by function (COFOG). To calculate investment in Infrastructure we sum of following groups/divisions of government expenditure: Economic affairs (Fuel and energy + Mining, manufacturing and construction + Transport + Communication + Other industries), Environmental protection (Waste management + Waste water management + Pollution abatement + Protection of biodiversity and landscape), Housing and community amenities (Housing development + Water supply + Street lighting), Recreation, culture and religion (Recreational and sporting services + Broadcasting and publishing services + Religious and other community services), Health (Outpatient services + Hospital services + Public health services), Education (Pre-primary and primary education + Secondary education + Post-secondary non-tertiary education + Tertiary education + Education not definable by level).

⁷¹ Other physical capital includes the economy's remaining investments in physical capital. More precisely, Other physical capital includes: Total Construction assets (after the assets

- Human capital⁷²

All data for Investment are from Eurostat and the Statistical Service of Cyprus, 2021. The relevant variable is: Gross fixed capital formation by industry and asset type.

Table 2.1 presents the breakdown of each of the economy's investments to its RRP sources of funding by priority axis (columns two to six). The last row of Table 2.1 shows the share of each investment in the total RRF budget. Infrastructure absorbs the greatest part of the RRF budget (around 30%), followed by Other physical capital and ICT (around 29% and 25% respectively). Around 6% of the budget goes to reforms and does not contribute to the economy's capital.

By the full implementation of the RRP, Human capital will be benefited from measures mostly related to labour market & education (priority axis 5) and health (priority axis 1): around 96% and 4% of the investments in Human capital will come from axis 5 and axis 1 respectively. Most of the investments in ICT will come from priority axis 3 (45%) and from priority axis 4 (around 30%). Investments in R&D come from measures strengthening the resilience and competitiveness of the economy (priority axis 3). Around 40% of investments in Infrastructure come from priority axis 2 and the remaining 60% from priority axes 3, 5 and 1 (in order of their contribution). Priority axis 2 provides also the highest contribution to investments in Other physical capital (around 76%) while the remaining 24% comes from priority axis 3.

There are cases, however, for which it was not possible to quantify all the measures included in the Plan due to the form of the model. This would limit the quantitative exercise of the cyERC study to a subset of measures. The affected measures concerned reforms related mainly to Public and Local Administration, Judicial and Anti-corruption reforms, Business support for competitiveness reforms, Labour market reforms, and Fiscal and Financial Stability reforms (around 6% of the total RRF budget – see column 7). Nevertheless, these measures have a potentially large effect on productivity (TFP) growth.

Table 2.1: Allocation of the RRF budget to Economy's Investment Expenditures.

	Investment					
	Human (%)	ICT (%)	R&D (%)	Infrastructure (%)	OPC (%)	Reforms (%)
Priority Axis 1. Public health, civil protection and lessons learned from the pandemic	4.07	5.76	-	14.58	-	0.38
Priority Axis 2. Accelerated transition to a green economy	-	12.09	-	38.29	76.36	1.93
Priority Axis 3. Strengthening	0.16	44.99	100	23.75	23.64	92.33

in Infrastructure are accounted for), Transport equipment assets, Other machinery and Cultivated biological resources.

⁷² Investment in Human capital is defined as the sum of investments in Education and Health.

the resilience and competitiveness of the economy						
Priority Axis 4. Towards a digital era	-	29.35	-	-	-	-
Priority Axis 5. Labour market, education and human capital	95.77	7.81	-	23.39	-	5.36
% of Investment in total RRP Budget	4.98	24.70	5.87	29.89	28.52	6.05

Given the allocation of RRP funds, the capital stocks are then constructed as described by equation 2. The depreciation rate values for the physical capital inputs are taken from Stehrer et al. (2019)⁷³. The aforementioned work uses the EUKLEMS dataset to calculate depreciation rates by asset type for a number of countries including Cyprus. Some of the depreciation rates were aggregated to match the specific capital stock series used in this study. The aggregation was performed using the weighted sum of depreciation rates of the assets included in the relevant aggregate investment category.⁷⁴ The depreciation rate for Human capital is constructed as the weighted sum of the depreciation rates of investments in Education and Health (taken from Carbone and Kverndokk, 2017)^{75,76} Table 2.2 lists the depreciation rates used.

Table 2.2: Depreciation rates.

Capital stock	δ
Information and Communication Technology (ICT)	0.265
Research & development (R&D) and Computer software & databases	0.246
Infrastructure	0.019
Other physical capital	0.083
Human capital	0.039

⁷³ Stehrer, R., A. Bykova, K. Jäger, O. Reiter and M. Schwarzappel (2019): Industry level growth and productivity data with special focus on intangible assets, wiiw Statistical Report No. 8. Source of data: EU KLEMS database, 2019 release.

⁷⁴ $\delta_i = \sum_j v_j \delta_j$, where v_j is the share of asset type j in investment i .

⁷⁵ Jared C. Carbone & Snorre Kverndokk, 2017. "Individual Investments in Education and Health: Policy Responses and Interactions," Advances in Health Economics and Health Services Research, in: Kristian Bolin & Björn Lindgren & Michael Grossman & Dorte Gyrd-Hansen & Tor Iversen & Robert Kaestn (ed.), Human Capital and Health Behavior, volume 25, pages 33-83, Emerald Publishing Ltd

⁷⁶ The weights are the average shares of each investment to the total investment in Education and Health. The corresponding depreciation rates are 5% and 1% respectively.

For the construction of each capital stock we also need the initial capital stock. This is constructed as follows $K_{1995} = \frac{I_{1995}}{(\delta+g)}$, where I is Investment in 1995 (in constant prices), and g is the average growth rate of GDP before 1995.

Implementation of the model and calibration

The model predicts the evolution of the main macroeconomic variables. Government investments lead to changes in the production capacity of the economy through changes in its capital stocks, i.e. through changes in Human capital, ICT, R&D, Infrastructure and Other physical capital. In turn these changes affect labour demand (equation 6) and output supply (equation 7). In addition, reforms not quantified are assumed to affect productivity growth (TFP Growth).

In order to assess this impact, we first need to set the parameters of the model. The output elasticities, a_i and b_i , are obtained from the literature. Table 2.3 offers an overview of the existing literature on the output elasticities.

Table 2.3: Overview of the most cited studies related to output elasticities of capital inputs.

Human Capital	Method	Elasticity
Barro (1991)	Growth regression , 98 countries (1960-1985)	0.0305
Barro (2001)	Growth regression , 100 countries (1965-1990)	0.0044
Kalaitzidakis et al. (2001)	Production function, 93 countries (1960-1990)	0.0440
Mamuneas et al. (2006)	Production function-TFP estimation, 51 countries (1971-1987)	0.1900
Ketteni et al. (2011)	Production function-TFP (labour productivity growth index) growth estimation, 15 OECD countries (1980-2004)	0.0340
Calderon et al. (2014)	Production function, 88 countries (1960-2000)	0.1000
Barro et al. (2013)	Growth regression, over 100 countries (1960-1995)	0.0044
Bloom et al. (2019)	Production function output growth, 116 countries (1970-2004)	0.0670
ICT Capital	Method	Elasticity
Siegel (1997)	TFP growth equation, US manufacturing industries, from 1972-1987	0.0572

O'Mahony and Vecchi (2005)	Production function, US (21 industries) and UK (24 industries) (1976-2000)	0.0550
Cziernich et al. (2011)	Production growth regression, 25 OECD countries (1996-2007)	0.0920

Table 2.3 cont.

ICT Capital	Method	Elasticity
Ketteni et al. (2011)	Production function-TFP (labour productivity growth index) growth estimation, 15 OECD countries (1980-2004)	0.0300
Spiezia (2012)	Production function, GMM estimation, 18 OECD countries (26 industries), (1980-2004)	0.0560
Ketteni et al. (2015)	Production function-TFP (labour productivity growth index) growth function, 15 OECD countries (1980-2004)	0.0280
Niebel (2018)	Cobb Douglas production function, 59 countries (1995-2010)	0.0490
R&D Capital	Method	Elasticity
Lichtenberg and Siegel (1991)	TFP growth function, US industries (1972-1987)	0.1320
Coe and Helpman (1995)	TFP equation, 22 OECD countries (1971-1990)	0.0890
Park (1995)	Production function (growth accounting equation estimation), 10 OECD countries (1970-1987)	0.11
Park (1995)	Production growth accounting equation, 10 OECD countries (1970-1987)	0.08

Nadiri and Mamuneas (1994)	Cost function estimation, 12 US industries (1956-1986)	0.0300
Mamuneas and Nadiri (1996)	Cost-Function of an industry, 15 US industries (1981-1998)	0.0800
Coe et al. (2009)	TFP equation, 24 OECD countries (1971-2004)	0.0960
O'Mahony and Vecchi (2009)	Production function estimation, 5 countries (US, UK, Japan France and Germany) company data (1988-1997)	0.0960
Bravo-Ortega and Marin (2011)	TFP equation, 65 countries (1965-2005)	0.1570
Guelec and van Potterlberghe de la Potterie (2004)	TFP equation, 16 OECD (1980-1998)	0.13
Guelec and van Potterlberghe de la Potterie (2004)	Cobb Douglas production, TFP-error correction model for 16 OECD countries (1980-1998)	0.07
<hr/>		
Infrastructure Capital	Method	Elasticity
Nadiri and Mamuneas (1994)	Cost function estimation, 12 US industries(1956-1986)	0.1290
Demetriades and Mamuneas (2000)	Profit function estimation, 12 OECD countries (1971-1990)	0.1873
Roller and Waverman (2001)	Production function estimation, 21 OECD countries (1970-1990)	0.0340
Calderon et al. (2014)	Production function, 88 countries (1960-2000)	0.0800
<hr/>		

The relationship of Human capital and economic growth is at the centre of recent literature on economic growth. Although human capital includes education, health and aspects of social capital, the vast majority of the literature proxies it through education

(Barro, 2013). According to Table 2.3, Barro (1991, 2001, 2013)⁷⁷, Calderon et al. (2014)⁷⁸ and Bloom et al. (2019)⁷⁹ emphasise the significance of human capital for economic growth, while by estimating production functions Kalaitzidakis et al. (2001)⁸⁰, Mamuneas et al. (2006)⁸¹ and Ketteni et al (2011)⁸² find a positive impact of human capital on productivity growth.

A key driving force for economic growth is ICT capital. Siegel (1997)⁸³, O'Mahony and Vecchi (2005)⁸⁴ find a positive contribution of ICT on productivity and output growth respectively. Moreover, Czernich et al. (2011)⁸⁵ and Spiezia (2012)⁸⁶ through production function estimates suggest a significant impact of ICT on economic growth. In addition, Ketteni et al (2011) and Ketteni et al. (2015)⁸⁷ finds a positive contribution of ICT on productivity growth, whereas Niebel (2018)⁸⁸ clarified that the positive impact stemming from ICT on economic growth can be an advantage not only for developing and emerging countries, but also for developed countries. Given that the ICT is only the first step towards economy's digitalisation, improvement in the quality of technologies is essential (Evangelista et al., 2014)⁸⁹.

⁷⁷ Barro, R.J. (1991). Economic Growth in a Cross Section of Countries, *The Quarterly Journal of Economics*, 106(2), 407-443.

Barro, R. (2001), Human Capital: Growth, History and Policy, *The American Economic Review*, 91(2), Papers and Proceedings of the Hundred Thirteenth Annual Meeting of the American Economic Association, 12-17

Barro, R. (2013). Education and Economic Growth, *Annals of Economics and Finance*, 14-2(A), 277-304.

⁷⁸ Calderon, C., E. Moral-Benito and L. Servén, (2014). Is infrastructure capital productive? A dynamic heterogeneous approach, *Journal of Applied Econometrics*, 30, 177-198.

⁷⁹ Bloom, D.E., D. Canning, R. Kotschy, K. Pretzner and J.J. Schunermann (2019). Health and Economic Growth: Reconciling the micro and macro evidence, *NBER Working Paper Series*, Working Paper 26003.

⁸⁰ Kalaitzidakis, P., t. P. Mamuneas, A. Savvides and T. Stengos (2001). Measures of Human Capital and Nonlinearities in Economic Growth, *Journal of Economic Growth*, 6, 229-254

⁸¹ Mamuneas, T.P., A. Savvides and T. Stengos (2006). Economic Development and the return to human capital: A smooth coefficient semiparametric approach. *Journal of Applied Econometrics*, 21: 111-132.

⁸² Ketteni, E., T. Mamuneas and Stengos T. (2011). The effect of Information and human capital on economic growth. *Macroeconomic Dynamics*, 15 (2011), 595-615.

⁸³ Siegel. D. (1997). The impact of computers on manufacturing productivity growth: A multiple-indicators, multiple causes approach. *Review of Economics and Statistics*, 79(1), 68-77.

⁸⁴ O'Mahony, M. and M. Vecchi (2005). Quantifying the Impact of ICT Capital on Output Growth: A Heterogeneous Dynamic Panel Approach, *Economica*, 72(288), 615-633.

⁸⁵ Czernich, N., O. Falck, T. Kretschner and L. Woessmann (2011). Broadband Infrastructure and Economic Growth, *Economic Journal*, 121, 505-532.

⁸⁶ Spiezia, V. (2013). ICT investments and productivity: Measuring the contribution of ICTs to growth, *OECD Journal Economic Studies*, Vol. 2012, 199-211

⁸⁷ Ketteni, E., C Kottaridi and T.P. Mamuneas (2015). Information and Communication Technology and foreign direct investment: interactions and Contributions to Economic Growth. *Empirical Economics*, 48 (2015), 1525-1539.

⁸⁸ Niebel, T. (2018). ICT and economic growth-Comparing developing, emerging and developed countries. *World Development*, 104 (2018), 197-211

⁸⁹ Evangelista, R., P. Guerrieri and V. Melicani (2014). The economic impact of digital technologies in Europe, *Economics of Innovation and New Technology*, 23(8), 802-824.

As far as the Research and Development (R&D) capital is concerned, as can be seen in Table 2.3, the studies conducted by Coe and Helpman (1995)⁹⁰ and Coe et al. (2009)⁹¹ find a positive impact of R&D on productivity growth. Moreover, Park (1995)⁹² and Guellec and van Pottelsberghe de la Potterie (2004)⁹³ by distinguishing R&D investments into public and private, suggest the significance of both in affecting economic growth, whereas Bravo- Ortega and Marin (2011)⁹⁴ find that R&D expands productivity growth in a large sample of countries. At the US industry level Nadiri and Mamuneas (1994)⁹⁵ and Mamuneas and Nadiri (1996)⁹⁶ suggest the significance of public R&D investment in boosting output and productivity growth. Lichtenberg and Siegel (1991)⁹⁷ also find a positive impact of total R&D investment on productivity growth at the industry level. In addition, Mahony and Vecchi (2009)⁹⁸ show that industries intense to R&D and skills are characterised by higher productivity growth levels in comparison with non-R&D performed industries.

Infrastructure capital is an essential ingredient for productivity and growth, mainly during periods of economic slowdown. As it can be seen in Table 2.3, Nadiri and Mamuneas (1994) provide evidence that Infrastructure capital has cost-saving effects in the US manufacturing industry. Demetriades and Mamuneas (2000)⁹⁹ find a positive effect of public capital on output employment and physical capital investment in a set of OECD countries. In addition, Roller and Waverman (2001)¹⁰⁰ find a positive effect of infrastructure on economic development. Finally, Calderon et al (2014) by using a large cross-country dataset also find positive and statistically significant output elasticity of Infrastructure.

Since the RRP includes significant reforms that have not been quantified and since non-quantified reforms can further enhance productivity growth, the need has emerged to account for these in our estimations. The findings of the relevant literature show that reforms that improve the level of governance have the potential to support innovation and entrepreneurship and increase the overall productivity thus boosting economic growth.

⁹⁰ Coe .D.T. and E. Helpman, (1995). International R&D spillovers, *European Economic Review*, 39(1995), 859-887.

⁹¹ Coe, D.T., E. Helpman, and A.W. Hoffmaister (2009). International R&D spillovers and institutions, *European Economic Review*, 53 (2009), 723-741.

⁹² Park, W. G. (1995). International R&D spillovers and OECD economic growth, *Economic Inquiry*, 33(4), 571-591.

⁹³ Guellec, D. and B. van Pottelsberghe de la Potterie (2004). From R&D to Productivity Growth: DO the Institutional Settings and the Source of Funds of R&D Matter? *Oxford Bulletin of Economics and Statistics*, 66(3), 353-378

⁹⁴ Bravo-Ortega, C. and A.G. Marin (2011). R&D and Productivity: A Two Way Avenue?. *World Development*, 39(7), 1090-1107.

⁹⁵ Nadiri, N.I. and Mamuneas, P.T. (1994). The effects of public infrastructure and R&D capital on the cost structure and performance of US manufacturing Industries, *Review of Economics and Statistics*, 76(1), 22-37

⁹⁶ Mamuneas, T.P. and N.I. Nadiri (1996), Public R&D policies and cost behaviour of the US manufacturing industries. *Journal of Public Economics*, 63(1), 57-81.

⁹⁷ Lichtenberg, F.R. and D. Siegel, (1991), The impact of R&D investment on productivity, new evidence using linked R&D -LRD data, *Economic Inquiry*, 29(2), 203-228.

⁹⁸ O'Mahony, M. and M. Becchi (2009). R&D, Knowledge spillovers and company productivity performance, *Research Policy*, 38 (2009), 35-44.

⁹⁹ Demetriades, P.O. and T.P. Mamuneas (2000). Intertemporal Output and Employment Effects of Public Infrastructure capital: Evidence from 12 OECD Economies, *The Economic Journal*, 110(465), 687-712.

¹⁰⁰ Roller, L.H., and L. Waverman (2001). Telecommunications Infrastructure and Economic Development: A Simultaneous Approach, *American Economic Review*, 19(4), 909-923.

Nicoletti and Scarpetta (2003)¹⁰¹ provide empirical evidence, suggesting important benefits from improved regulatory environment. They find that for some European countries (Portugal, Greece, Austria, France and Italy), reforms improving the business environment can increase TFP growth by 0.7 percentage points. Bourles et al. (2010, 2013)¹⁰² show that competitive regulations and macroeconomic reforms positively affect GDP growth through improvements in TFP. Bourles et al. (2010) show that for some countries the effect of reforms on TFP growth varies among countries, ranging from 0-1 percentage points per year. Moreover, Doubla-Norris et al. (2013)¹⁰³ use a sample of industry-level data for more than 100 economies and find that policy reform indicators are positively correlated with TFP growth. Dabla-Norris et al. (2015)¹⁰⁴, also find a positive relationship between policy reforms and TFP growth. More precisely, they find that the adoption of Product Market Regulation can raise TFP growth annually by 0.1 percentage points.

The parameter values chosen for our model are based on the average estimates of elasticities provided in the literature for each capital input, as shown in Table 2.3. The chosen values are listed in Table 2.4 below.

Table 2.4: Model Parameters.

a_1	Output elasticity of Labour	0.532
a_2	Output elasticity of Human capital	0.060
b_1	Output elasticity of ICT capital	0.050
b_2	Output elasticity of R&D and Cs&D capital	0.109
b_3	Output elasticity of Infrastructure capital	0.100
b_4	Output elasticity of Other physical capital	0.149
s_L	Share of Labour income	0.592
s_K	Share of Capital income	0.408
\hat{A}	Total Factor Productivity (TFP) growth	0.02
γ	$\hat{A}(1 + \gamma)$: Increments in TFP growth (2022-2026)	0, 0.01, 0.05, 0.10

In order to account for the effect of reforms (non-quantified measures) on growth and considering that reforms amount to 6% of the RRP budget, we assume that TFP grows by an extra 5% each year for the period 2022-2026 and remains constant thereafter (see last

¹⁰¹ Nicoletti, G. and S. Scarpetta, (2003), Regulation, Productivity and Growth: OECD Evidence, *Economic Policy*, 18(36), 9-72.

¹⁰² Bourlès, R., G., Cette, G, J. Lopez, J. Mairesse, J. and G. Nicoletti (2013). Do Product Market Regulations in Upstream Sectors Curb Productivity Growth? Panel data evidence for OECD countries. *The Review of Economic and Statistics*, 95(5), 1750-1768.

Bourlès, R., G., Cette, G, J. Lopez, J. Mairesse, J. and G. Nicoletti (2010), The Impact on Growth of Easing Regulations in Upstream Sectors, *CESifo Dice Report, Journal of International Comparisons*, 8(3).

¹⁰³ Dabla-Norris, E., Ho, G. and Kyober, A., (2013). Reforms and distance to frontier, IMF, December 2013.

¹⁰⁴ Dabla-Norris, E. Guo, S., Haksar, V., Kim, M., Kochhhar, K. Wiseman, K. and Zdzienicka, A. (2015), The New Normal: A Sector Level Perspective on Productivity Trends in Advanced Economies, Staff Discussion Notes No. 15/3.

row of Table 2.4). In an exercise performed to check the robustness of the results, we calibrate the extra increase in TFP growth examining three more scenarios: no effect on TFP growth (0% extra increase), an extra 1% increase and an extra 10% increase each year.

Before moving to the impact assessment results, the model has been first calibrated to capture the current state of the Cyprus economy using data on an annual basis until 2019. Figures 2.1 and 2.2 present the actual and fitted growth rates –as predicted by the model (equations 6 and 7)- of output and labour for the period for which actual data are available, namely between 1995 and 2019. It is evident that the model fits the data well as the actual and fitted values move together (the period between 2009 and 2014 corresponds to the financial crises, a shock that we do not account for in the model, hence the discrepancy for that period).

Figure 2.1: Output growth

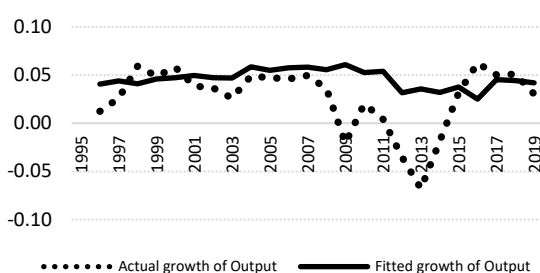
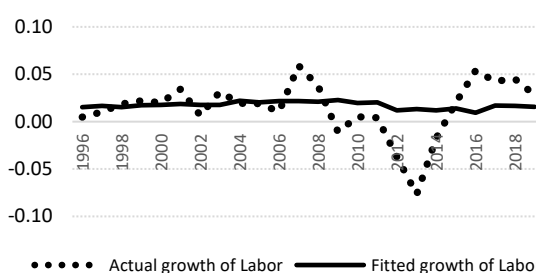


Figure 2.2: Labour growth



Impact Assessment Results

This section presents the results of the impact assessment model. It is important to note that, as is common in such simulation exercises, the analysis assumes that government investments return to their original levels, as they were before the implementation of the Plan. The results are expressed in log percentage changes compared to the baseline scenario (non-implementation of the Recovery Plan). By construction, percentage logarithmic differences in the levels are equal to the difference in logarithmic growth rates between the two scenarios. Table 2.5 presents the results for the short-term (2 years ahead), medium-term (5 years ahead) and long-term (20 years ahead) periods.

The results show that the Recovery and Sustainability Plan can increase the level of the Cyprus GDP by about 3% two years ahead and by around 7% five years ahead relatively to the baseline scenario. 69.5% and 56.6% comes from the effect of RRP measures for each period respectively. The corresponding contribution of productivity amounts to 10.6% and 23.5%. The increase in GDP is maintained in the long run: 16.5% increase 20 years ahead, compared to the baseline scenario. Around 60% of this comes from productivity improvements. The effect of Infrastructure and Other physical capital also remains in the long – term since the depreciation rates of these two capital stocks is very low (see Table 2.2). The plan also increases employment by 1.1% in the short-term, by 2.6% in the medium-term and by 6.2% in the long-term, relatively to the baseline scenario.¹⁰⁵

¹⁰⁵ In this report we do not consider the effect of RRP measures on investment funded by the private sector. Demetriades and Mamuneas (2000) have shown that the inducement effect of public on private capital is rather small in the short and intermediate run while the effect of public capital is higher in the long run. Since we do not model the response of privately funded investment to RRP measures, our results might underestimate the effect of RRP measures, especially in the long run.

As mentioned in the previous section, to account for the effect of reforms, we assume that TFP grows by an extra 5% each year for the period 2022-2026 and remains constant thereafter relative to the baseline model. We examine three additional values for the increment on TFP growth: 0%, 1% and 10% increments (first column of Table 2.6, the γ values). The case of $\gamma = 0\%$ corresponds to the scenario in which the reforms have no effect on productivity growth.¹⁰⁶ The results are summarised in Table 2.6 for the three periods: the short-term, medium-term and long-term periods. With respect to the period of the implementation of the plan (medium-term), we find that, by the end of 2026, the 1% extra increase in TFP growth results in an overall increase in GDP and employment by 5.2% and 1.95% respectively, whereas the 10% extra increase in TFP growth increases GDP and employment by around 9.1% and 3.4% respectively, relative to the baseline scenario. Our results lay in the middle of these two ($\gamma = 5\%$).

Focusing on the period of the implementation of the plan, the 7% increase in GDP, implies an additional growth rate of GDP by approximately 1.2 percentage points on average each year during the period 2021-2026. During the same period, the plan increases employment by more than 2.5%, or by around 11,000 new jobs which can significantly reduce the unemployment rate in Cyprus (currently at 7.6%).¹⁰⁷

With respect to each priority axis, the impact of the RRP compared to the baseline development of the economy without the RRP, for the period of the implementation of the plan, are summarised as follows:

Priority Axis 1. Public health, civil protection and lessons learned from the pandemic

The measures targeting a more resilient and effective health system as well as an enhanced civil protection system contribute by 3.7% to the additional increase of GDP and by around 3.3% to the additional increase in employment by the end of 2026. The channel of the impact of these measures is mainly the increase in Human, ICT, Infrastructure capital and Productivity.

Priority Axis 2. Accelerated transition to a green economy

By the end of 2026, the measures targeting a faster transition to a green economy contribute by around 14% to the additional increase of GDP and employment. The channel of impact of these measures is mainly the increase in ICT, Infrastructure, Other physical capital and Productivity.

Priority Axis 3. Strengthening the resilience and competitiveness of the economy

The largest of all priority axes, in terms of its share on total RRP budget, contributes by around 26.5% and 34% to the additional increase of GDP and employment respectively, by the end of 2026. The channel of impact of these measures is mainly the increase in Human, ICT, R&D, Infrastructure, Other physical capital and Productivity.

Priority Axis 4. Towards a digital era

The measures towards a digital era contribute by around 5% and 9% to the additional increase of GDP and employment respectively, by the end of 2026. The channel of impact of these measures is mainly the increase in the ICT capital of the economy.

¹⁰⁶ This is the equivalent of the non-implementation of the reforms.

¹⁰⁷ Labour force survey statistics, main results in Cyprus for the year 2020: Labour Force: 451,645 persons above the age of 15 years, Employment: 417,354 persons above the age of 15 years, Total unemployment: 34,291 persons unemployed above the age of 15 years old. Source: Labour Force Survey, 2020, Statistical Service of Cyprus (Last Update 02/03/2021).

Priority Axis 5. Labour market, education and human capital

By the end of 2026, the measures in this axis show a contribution of around 8% and 10.5% to the additional increase of GDP and employment respectively. The channel of impact of these measures is mainly the increase in Human, ICT, Infrastructure capital and Productivity.

Conclusions of the Growth Accounting assessment

This chapter assesses the effects of the measures included in the RRP of Cyprus using a Production Function - Growth Accounting model. The model predicts the evolution of the main macroeconomic variables (output and employment) from the implementation of the RRP. RRP measures lead to changes in the output growth of the economy that come through changes in the human capital and the capital inputs, adjustments in the labour input (conditional on the capital stocks and human capital) as well as through changes in the productivity growth.

The results show that implementation of the RRP could potentially increase the level of GDP by around 7% and employment by around 2.5% by 2026, compared to the baseline scenario (non-implementation of the Recovery Plan). This implies an additional GDP growth of approximately 1.2 percentage points on average each year for the period 2021-2026. The employment increase by more than 2.5% corresponds, *ceteris paribus*, to the creation of around 11,000 new jobs which can potentially significantly reduce the unemployment rate in Cyprus.

Overall, the results for the short-term (2 years ahead), medium-term (5 years ahead) and long-term (20 years ahead) periods show that the level of the Cyprus GDP will be increase by about 3%, (69.5% of which is coming from the effect of RRP measures), 7% (56.6% of which is coming from the effect of RRP measures) and 16.5% respectively, compared to the baseline scenario. The effect of reforms, related mainly to Public and Local Administration reforms, Judicial and Anti-corruption reforms, Business support for competitiveness, Labour market reforms, and Fiscal and Financial Stability reforms, is assumed to affect productivity growth, which in turn generates an additional GDP growth of 10.6%, 23.5% and 59.8% in the short, medium and long-term, respectively, relative to the baseline scenario.

Table 2.5: Impact of the RRP.

Component	Channels of impact	Quantification of the impact					
		% difference from policy neutral baseline					
		Short-term		Medium-term		Long-term	
		(2 years ahead)		(5 years ahead)		(20 years ahead)	
		GDP	Empl oyment	GDP	Empl oyment	GDP	Empl oyment
Overall		2.9%	1.1%	6.8%	2.6%	16.5%	6.2%
Priority axis 1	1.1 - Resilient and Effective Health System, enhanced Civil Protection	Increase in Human, ICT and Infrastructure capital and Productivity		4.4%	5.6%	3.7%	3.3%
Priority axis 2	2.1 - Climate neutrality, Energy efficiency and renewable energy penetration	Increase in ICT, Infrastructure, Other physical capital and Productivity		6.7%	8.3%	6.0%	7.0%
	2.2 - Sustainable transport	Increase in ICT, Infrastructure, Other physical capital and Productivity		2.8%	3.5%	2.4%	2.7%
	2.3 - Smart and Sustainable Water Management	Increase in ICT, Infrastructure capital and Productivity		6.4%	8.0%	5.3%	4.4%
Priority axis 3	3.1 - New Growth Model and diversification of the economy	Increase in Human, ICT, R&D, Infrastructure, Other physical capital and Productivity		3.9%	4.9%	3.3%	8.3%
	3.2 - Enhanced Research & Innovation	Increase in R&D capital		18.9%	23.6%	13.4%	15.3%
	3.3 - Business support for competitiveness	Increase in ICT, Other physical capital and Productivity		1.5%	1.9%	1.3%	1.3%
	3.4 - Public and Local Administration Reform, Judicial reform and Anti-corruption reform	Increase in ICT, R&D, Infrastructure, Other physical capital and Productivity		5.0%	6.3%	4.1%	6.7%
	3.5 - Safeguarding Fiscal and Financial Stability	Increase in ICT capital and Productivity		5.5%	6.8%	4.4%	2.3%
Priority axis 4	4.1 - Upgrade infrastructure for connectivity	Increase in ICT capital		1.4%	1.7%	1.1%	5.6%
	4.2 - Promote e-government	Increase in ICT capital		4.5%	5.6%	3.7%	3.4%
Priority axis 5	5.1 - Educational system modernisation, upskilling and retraining	Increase in Human, ICT and Infrastructure capital		5.8%	7.2%	5.3%	6.4%
	5.2 - Labour Market	Increase in Human, ICT, Infrastructure capital and Productivity		2.7%	3.4%	2.5%	3.9%

Cyprus Recovery and Resilience Plan 2021-2026

Total Contribution of the components	69.5%	86.8%	56.6%	70.7%	20.0%	25.0%
Productivity Contribution	10.6%	13.2%	23.5%	29.3%	59.8%	75.0%
Labour Contribution	19.9%		19.9%		19.9%	
Total Contribution to Overall Impact	100%	100%	100%	100%	100%	100%

Table 2.6: Effect of reforms on TFP growth.

Quantification of the impact						
% difference from policy neutral baseline						
γ	Short-term (2 years ahead)		Medium-term (5 years ahead)		Long-term (20 years ahead)	
	GDP	Employment	GDP	Employment	GDP	Employment
0%	2.50%	0.94%	4.83%	1.81%	4.20%	1.57%
1%	2.57%	0.96%	5.20%	1.95%	6.49%	2.43%
5%	2.88%	1.08%	6.84%	2.56%	16.50%	6.20%
10%	3.27%	1.23%	9.12%	3.40%	31.36%	11.70%

2.4 Econometric Analysis of the Impact Assessment of the Recovery and Resilience Plan of Cyprus: Time series models

Introduction

The impact assessment of the RRP on key macroeconomic indicators of the Cyprus economy is also evaluated using alternative econometric time series models to capture the dynamic effects of the RRP. We use various VAR specifications and estimation methods, such as Structural VARs, and FAVARs and frequentist and Bayesian VARs. Using these alternative VAR-type models, we examine the difference between the two scenarios, the baseline/unconditional forecasts of key macro variable such as GDP and Employment growth (without the RRP) vis-à-vis the conditional forecasts of the aforementioned variables that would include the RRP. Hence, we quantify the dynamic difference between the conditional forecasts from the baseline forecasts every year, *ceteris paribus*. We identify and quantify not only the periods with the highest impact of the RRP during the various short-term and medium-term horizons (of 2 and 5 years ahead) but also how long will the impact of the RRP last within the long-term of 20 years ahead. Our results are robust for the aggregate impact on GDP growth and Employment growth and are consistent with the aforementioned studies.

Moreover, we find that the maximum effect of the RRP on the growth rates for GDP and Employment is realised in 2026, which coincides with the end of the medium-term period. It is worth noting that these econometric models assume mean reversion and do not explicitly capture the impact of reform, and hence the impact of the RRP on the GDP and Employment growth rate last until 2032, *ceteris paribus*.

Impact Assessment based on econometric time series models

This subsection evaluates the conditional forecasts based on time series models, which can capture the dynamic effects of key macroeconomic indicators of the RRP. The analysis based on time series models complements the other methods and results in that they study the dynamics of the conditional forecasts over time within the three different horizons of the RRP.

We consider Vector AutoRegressions (VARs) type models which are general, flexible models and provide a reliable empirical benchmark for alternative econometric representations. One such representation stems from Dynamic and Stochastic General Equilibrium (DSGE) models, a benchmark tool for policy analysis. While DSGE models are also taken to the data, both via calibration and estimation, they impose more structure on the data than a VAR model as they are more grounded in general equilibrium theory, as well as in micro-foundations. Given the historical time series data availability for Cyprus, we consider various specifications of VAR type models, which we use to assess the effects of structural shocks via impulse response analysis as well as for forecasting purposes.

The VAR methodology has been intensively used to identify and study the effects of structural shocks, e.g. Blanchard and Watson (1986)¹⁰⁸, Bernanke (1986)¹⁰⁹, Christiano et al.

¹⁰⁸ Blanchard, O., Watson, M.W. (1986). Are all business cycles alike? in: Gordon, R.J. (Ed.), *The American Business Cycle: Continuity and Change*. NBER. The University of Chicago Press, Chicago, IL.

¹⁰⁹ Bernanke, B.S. (1986). Alternative explanations of the money-income correlation. *Carnegie Rochester Conference Series on Public Policy*, 25, 49–99.

(1999)¹¹⁰, Bernanke et al. (2005)¹¹¹, among others. The main reason for the success of VAR models for structural analysis is that the representation and tools of the VAR methodology are the same ones used to draw conclusions in the theoretical general equilibrium models. This, in turn, facilitates the comparison between the outcomes of the theoretical models and a set of stylised facts derived from the empirical analysis. Indeed, to match these structural shocks, we can link the innovations in a VAR model to these structural shocks imposing identification restrictions on the VAR coefficients. Several methods for identification have been used, such as alternative sets of recursive zero restrictions on the contemporaneous coefficients or triangularisation, with Cholesky decomposition representing a special case (Sims, 1980¹¹²). The structural VAR (SVAR) is a more general approach (that nests the Cholesky decomposition) that uses either economic theory or outside estimates to constrain coefficients (Blanchard and Watson, 1986; Bernanke, 1986 and Bernanke et al., 2005). Similarly, Factor-Augmented VARs (FAVARs), e.g. Bernanke et al. (2005) based on dynamic factor models of Stock and Watson (2002)¹¹³ and others incorporate the information a large number of time-series and it is much more likely to condition on relevant information for identifying shocks. Finally, Bayesian VARs (BVARs) have been estimated to address the challenge of a large number of variables and relatively small time series samples. By incorporating prior information into the estimation process, the estimates obtained using Bayesian methods are generally more precise than those obtained using the standard classical approach. In addition, Bayesian simulation methods such as Gibbs sampling provide an efficient way not only to obtain point estimates but also to characterise the uncertainty around those point estimates. Given the relatively short time-series sample for most of the historical data in Cyprus, we adopt different priors for tackling issues relating to small-sample limitations and how to, for example, incorporate prior beliefs about combination of coefficients that arise from the implications of DSGE models (see Del Negro and Schorfheide (2004)¹¹⁴). As an illustrative example, consider the scenario of being interested in a prior that incorporates the belief that the sum of the coefficients on lags of the dependent variable in each equation sum to one (i.e. each variable has a unit root). Widely used priors such as the Minnesota and the natural conjugate priors are straightforward to implement but, nonetheless, come with certain limitations that may be restrictive in many practical circumstances. In contrast, the independent normal Wishart prior allows for additional flexibility that is particularly relevant to addressing macroeconomic questions when faced with a very short sample period. Moreover, under certain scenarios, it might be useful to incorporate priors about the long-run behaviour of the variables included in the VAR. Although the aforementioned priors allow to impact the value of the constant terms in the VAR, there is no direct way to affect the long run mean. Steady-state priors (see, for instance, Villani (2009)¹¹⁵) offer an easily implementable methodology for incorporating informative beliefs about the unconditional mean, frequently providing substantial gains in forecast accuracy.

¹¹⁰ Christiano, L.J., M. Eichenbaum and C. Evans. (1999), Monetary policy shocks: what have we learned and to what end? in Woodford M. and J. B. Taylor, eds., *Handbook of Macroeconomics*, North Holland, 65-148.

¹¹¹ Bernanke, B.S., Boivin, J., Elias, P. (2005). Measuring the effects of monetary policy: a factor-augmented vector autoregressive (FAVAR) approach. *Quarterly Journal of Economics*, 120, 387-422.

¹¹² Sims, C.A. (1980). Macroeconomics and reality. *Econometrica*, 48, 1-48.

¹¹³ Stock, J.H., Watson, M.W. (2002). Forecasting using principal components from a large number of predictors. *Journal of the American Statistical Association*, 97, 1167-1179.

¹¹⁴ Del Negro M. and F. Schorfheide. (2009). Monetary policy analysis and potentially misspecified models. *American Economic Review*, 99, 4, 1415-1450.

¹¹⁵ Villani N. (2009). Steady-state priors for Vector AutoRegressions. *Journal of the Applied Econometrics*, 24, 4, 630-650.

For the estimation of the models, we use quarterly data from 1995Q1-2019Q4. For some indicators, we also consider longer time series and monthly frequency when these are available. The choice of 1995 is based on data availability. The univariate properties of the series are evaluated, and in particular, their stationarity properties. To evaluate the impact of the RRP we consider aggregate macro indicators of GDP, Employment/Unemployment, Government Expenditure, Investment (private and government), Consumption, Inflation. Unit root tests (e.g. Augmented Dickey Fuller) confirm that the majority of these time-series exhibit a behaviour that is consistent with the presence of non-stationary data. To this end, these indicators become stationary after (log) first-differencing. In addition, we investigate the impact of the components of the RRP by considering the impact of various sub-aggregate indices such as ICT Investments, Health expenditures and various green economy indicators. The process of choosing the maximum lag length in multivariate models requires special attention because inference is dependent on correctness of the selected lag order. Therefore, we employ different criteria (Akaike Information Criterion and Bayesian Information Criterion), for choosing the optimal lag length. To maintain a parsimonious model that does not suffer from the curse of dimensionality, we set the maximum lag to three. For most of the examined specifications and set of variables, the chosen optimal lag-length is found to be one year. We confirm that all estimated VARs are stable and invertible.

Using alternative VAR-type specifications and estimation methods we pose the fundamental question often addressed also in applied macroeconomics and policy analysis: if a given variable follows alternative paths in the near to medium term, how will forecasts of other variables, say key macro variables, change? These alternative forecasts are called conditional, rather than unconditional, forecasts. Common applications of conditional forecasts include assessing the path of macroeconomic variables to alternative scenarios for different variables, e.g. related to the monetary policy and the fiscal policy stance. For conditional forecasts in VAR models, see, for instance, Waggoner and Zha (1999)¹¹⁶, Banbura et al. (2015)¹¹⁷ and Andersson et al. (2010)¹¹⁸, among others.

The impact assessment of the RRP on key macroeconomic indicators of the Cyprus economy is evaluated based on the difference between the two scenarios, the baseline/unconditional forecasts of key macro variable such as GDP and Employment growth (without the RRP) vis-à-vis the conditional forecasts of the aforementioned variables that would include the RRP, using the methods of Waggoner and Zha (1999) using alternative VAR specifications and estimation methods. Using these VAR type models we estimate and forecast the dynamic behaviour of key macro variables. Hence, we quantify the dynamic difference between the conditional forecasts from the baseline forecasts every year, ceteris paribus. We identify and quantify not only the periods with the highest impact of the RRP during the various short-term and medium-term horizons (of 2 and 5 years ahead) but also how long will impact of the RRP last within the long-term of 20 years ahead.

We examine the aggregate impact of the RRP on various key macroeconomic indicators. From 2021-2026 the RRP grants will influence Government Expenditure, total Investment (public and private) Within the alternative VAR specifications we study how these RRP

¹¹⁶ Waggoner, D. F. and T. Zha. (1999). Conditional Forecasts in Dynamic Multivariate Models, *Review of Economics and Statistics*, 81, 639–651.

¹¹⁷ Banbura, M., D. Giannone, and M. Lenza. (2015). Conditional forecasts and scenario analysis with vector autoregressions for large cross-sections. *International Journal of Forecasting*, 31, 739–756.

¹¹⁸ Andersson, M. K., S. Palmqvist, and D. F. Waggoner. (2010). Density Conditional Forecasts in Dynamic Multivariate Models, Sveriges Riksbank Working Paper Series 247, Sveriges Riksbank.

channels would affect GDP and Employment growth as well as other macro indicators such as Consumption growth, among others. The results reported below refer to the conditional and unconditional/baseline forecasts and the corresponding percentage difference between these two forecasts for the aforementioned key macro indicators when considering the impact of grants on total Investment or Government Expenditure. These results are robust to using frequentist or Bayesian VARs.

First, we consider the impact of the RRP on total Investment which is consistent with the methodology of the previous chapter. The results reported below refer to a small scale stationary VAR which assumes mean reversion and treats the following variables as endogenous, total Investment, GDP, Employment, and Consumption growth rates (log differences). Similar qualitative results are found when considering additional variables as exogenous in the context of a VARX. Within the context of the aforementioned VAR, the impact of the RRP on GDP growth is presented in the following Figures. Figure 3.1a presents the conditional forecasts of GDP growth that include the effects of the National RRP and the unconditional/baseline forecasts of GDP growth without the RRP. The corresponding GDP growth rate difference between the two scenarios is shown in Figure 3.1b. This means that the GDP level projected in the short-term and medium-term would be 1.3% and 5.6% higher than in the no Plan scenario, respectively. The dynamic aspect of the VAR model shows that within the medium-term (up to 2026), the impact of the RRP on the GDP reaches its maximum growth rate from the baseline scenario. It is worth noting that the VAR based medium-term impact of the RRP result of 5.6 % higher GDP level over the first five years is broadly in line with the estimate of (4.8%) obtained from the Production Function methodology when the PF approach excludes the impact of reforms. Moreover, we find that the RRP has a long-lasting effect on GDP growth up to 2030 as shown by the Figures below, in the context of the VAR model which assumes mean reversion.

Figure 3.1a: GDP growth forecasts based on the RRP and baseline

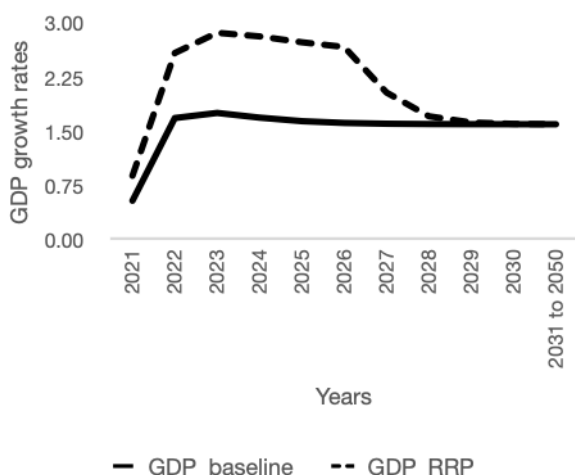
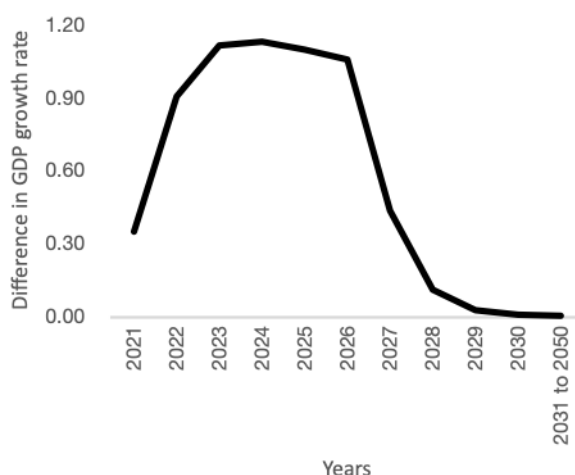


Figure 3.1b: Difference in the GDP growth forecasts between the RRP and baseline



Turning to the impact of the RRP on Employment, Figure 3.2a present the conditional forecasts of Employment growth that include the effects of the National RRP and the unconditional/baseline forecasts of Employment growth without the RRP. The corresponding Employment growth rate difference between the two scenarios is shown in

Figure 3.2b. We find Employment growth rate 0.6% to 2.8% higher than the unconditional/baseline forecast in the short-term (of 2 years ahead) and medium-term (of 5 years ahead), respectively. The RRP also has a long-lasting declining effect on Employment growth up to 2029 as shown in Figure 3.2b below.

Figure 3.2a: Employment growth forecasts based on the RRP and baseline

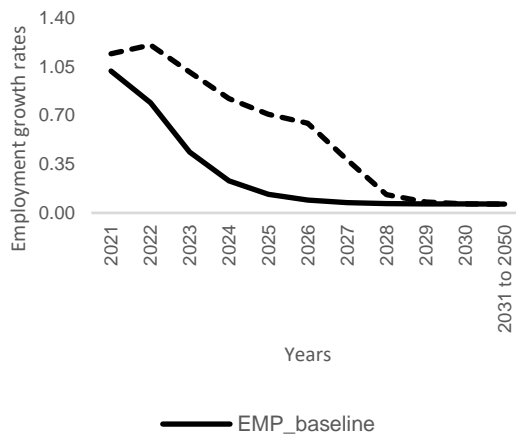
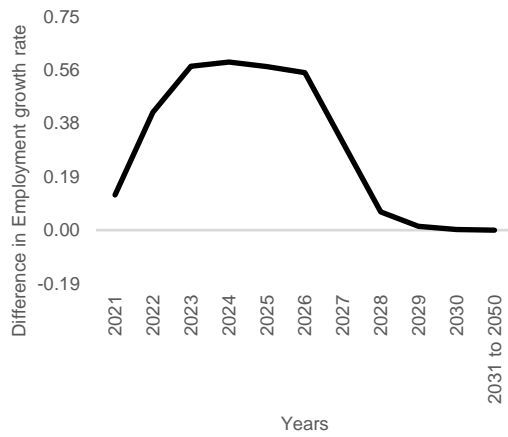


Figure 3.2b: Difference in the Employment growth forecasts between RRP and baseline



The impact of the RRP on Consumption growth is presented in Figure 3.3a that plots the conditional forecasts of Consumption growth that include the effects of the National RRP and the unconditional/baseline forecasts of Consumption growth without the RRP. The corresponding Consumption growth rate difference between the two scenarios is shown in Figure 3.3b. Within the medium-term the impact of the RRP on the Consumption growth reaches its maximum with a 0.8 Consumption growth rate in 2026 from the baseline scenario. The RRP has a long-lasting effect on Consumption growth up to 2029 as shown by the Figures below.

Figure 3.3a: Consumption growth forecasts based on the RRP and baseline

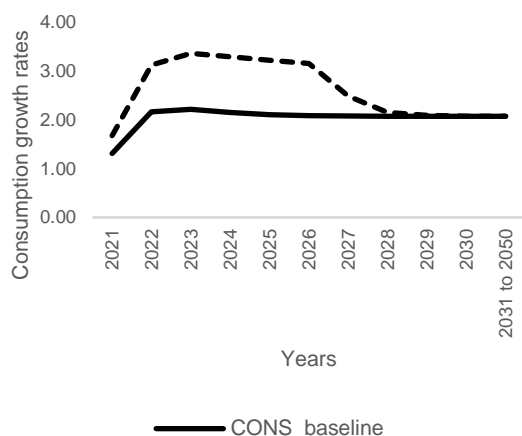
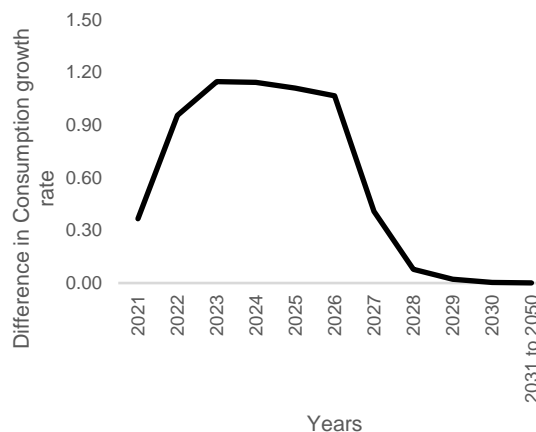


Figure 3.3b: Difference in the Consumption growth forecasts between RRP and baseline



Second, we examine the effects of the RRP through the government expenditure channel within the context of the stationary small-scale aforementioned VAR to examine the robustness of our findings through the different macro channels of the RRP. It is worth mentioning at the outset that we find similar qualitative results to those discussed above in terms of the impact of the RRP on the key macro indicators, yet the quantitative estimates through this channel are relatively more conservative. Nevertheless, in terms of impact assessment, we consider this as a useful exercise for obtaining the corresponding range of estimates of the potential channels and impact of the RRP. Figures 3.4-3.7 below present these findings. Comparing the results from these two alternative VAR specifications we find that through the government expenditure channel the RRP produces a relatively more conservative impact on GDP and Employment levels being 3.4% and 1.8% higher than the no plan scenario, respectively, over the medium-term horizon until 2026.

Figure 3.4a: GDP growth forecasts based on the RRP and baseline

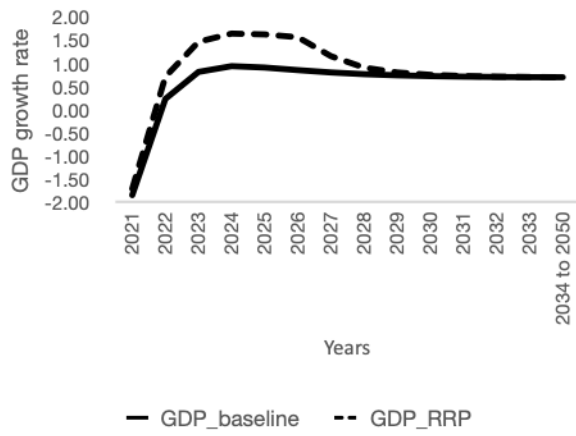


Figure 3.4b: Difference in the GDP growth forecasts between the RRP and baseline

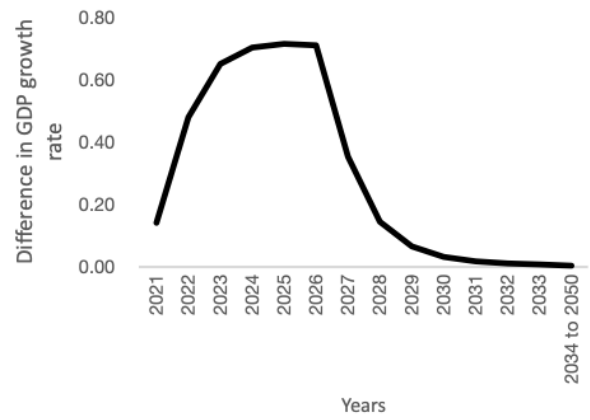


Figure 3.5a: Employment growth forecasts based on the RRP and baseline

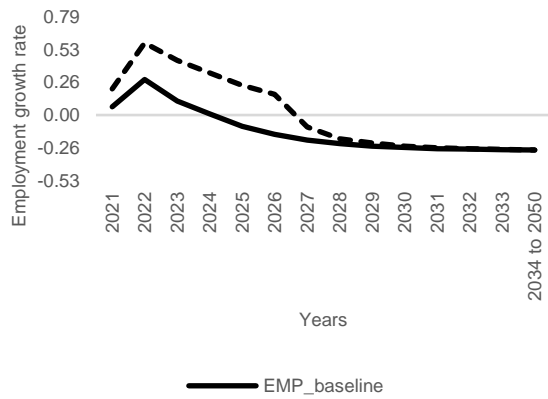


Figure 3.5b: Difference in the Employment growth forecasts between RRP and baseline

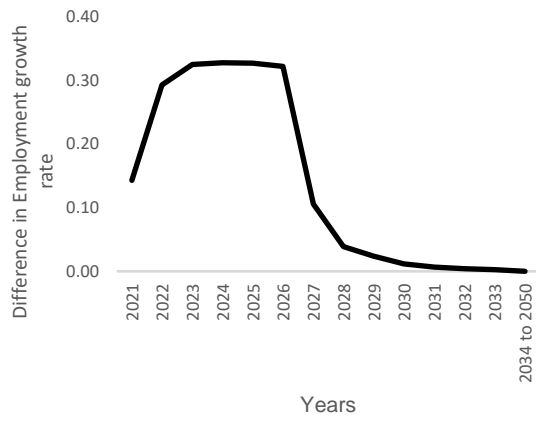


Figure 3.6a: Consumption growth forecasts based on the RRP and baseline

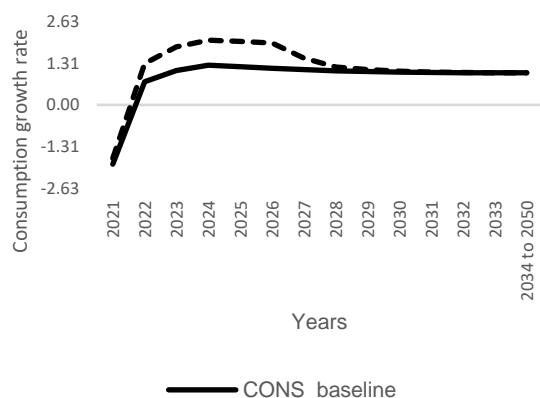
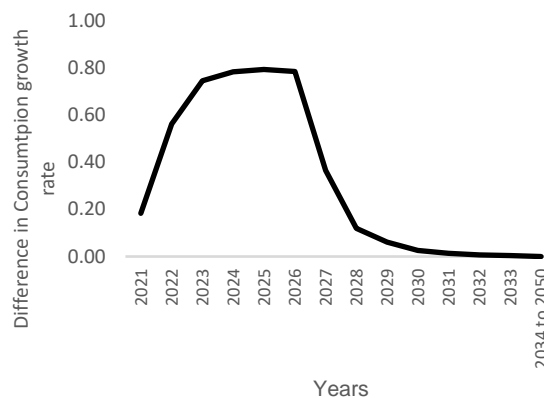


Figure 3.7b: Difference in the Consumption growth forecasts between RRP and baseline



Summarising, the econometric approach yields respective ranges of GDP and employment of 3.4-5.6 and 1.8-2.8 percentage difference from the policy-neutral baseline over the medium-term horizon. These estimated ranges are based on alternative VAR model specifications and channels of the impact of the RRP. The econometric methods yield results, which are comparable to the main method of this report, the PF approach without reforms which finds the corresponding figures to be 4.8% and 1.8%, for GDP and Employment, over the medium-term. For ease of exposition and comparison of the results with the other methods of these report, we summarise the key finding of the econometric approach discussed above in Table A4.7 in the Appendix.

2.5 Economic Impact Assessment for the Short and Medium Term with an Input-Output Model

Introduction

This chapter analyses the results of the economic impact assessment of the reforms and investments under all priority axes of the Recovery and Resilience Plan (RRP) of Cyprus based on an economic input-output (IO) model that has been developed and applied for Cyprus and covers all sectors of the economy. IO is a quantitative technique for studying the interdependence of production sectors in an economy over a stated time period, which has been extensively applied for policy impact evaluation, technical change analysis and forecasting.

Similarly, to what was mentioned in the previous chapters, the following priority axes and components were analysed:

- Priority axis 1: Public health and civil protection - lessons learned from the pandemic (Components: 1.1. Resilient and effective health system and enhanced civil protection)
- Priority axis 2: Accelerated transition to a green economy (Components: 2.1 Climate neutrality, Energy efficiency and renewable energy penetration; 2.2 Sustainable transport; 2.3 Smart and Sustainable Water Management)

- Priority axis 3: Strengthening the resilience and competitiveness of the economy (Components: 3.1. New growth model and diversification of the economy; 3.2. Enhanced research and innovation; 3.3. Business support for competitiveness; 3.4. Public and Local Administration Reform, Judicial reform and Anti-corruption reform; 3.5. Safeguarding fiscal and financial stability)
- Priority axis 4: Towards a digital era (Components: 4.1. Upgrade infrastructure for connectivity; 4.2. Promote e-government)
- Priority axis 5: Labour market, education and human capital (Components: 5.1. Educational system modernisation, upskilling and retraining; 5.2. Labour market).

This assessment examines short-term (2021-2023) and medium-term (2021-2026) impacts, i.e. periods for which the input-output model can conduct simulations with reasonable reliability; assessments for the longer term would be less reliable and have not been considered.

Methodology

Individual investments and reforms were examined on the basis of their description in the RRP and were subsequently aggregated in categories of similar measures. For priority axes 1, 3, 4 and 5, individual measures were grouped in line with a classification made by the government of Cyprus, which we kept and updated with the information of the final submitted RRP. The categories of measures are as follows:

- Consulting/Studies/Staff Cost
- Digital, Energy Efficiency,
- Financial instruments,
- Legislation,
- Technical/Construction,
- Training,
- Other schemes (e.g. incentives, grants etc).

Given the above classification, we then matched each investment/reform with the directly affected industries/sectors of economic activity (the latter is based on the NACE Rev. 2 industry classification). In cases where direct matching was not possible, further assumptions were made in order for an investment/reform to be matched with one or more industries.

The measures of Priority Axis 2 (Accelerated Transition to a Green Economy) were examined in more detail on the basis of their description in the RRP and were subsequently grouped in the following categories:

- *Component 2.1 (climate neutrality, energy efficiency and renewable energy penetration):*
 - Energy efficiency measures in buildings of the residential and services sectors, including local authorities
 - Measures to promote the use of renewable energy sources
 - Modernisation of energy infrastructure through the installation of smart electricity meters
 - Horizontal measures to reduce CO₂ emissions in industries, businesses and organisations
 - Forest fire protection.
- *Component 2.2 (sustainable transport):*
 - Promotion of public and non-motorised transport modes in line with Sustainable Urban Mobility Plans of Limassol and Larnaca

- Electrification of the vehicle fleet through a) grants for installing solar-powered electricity chargers, b) grants for purchasing electric cars, c) procurement of electric vehicles in the public sector, and d) installation of charging stations in public areas.
- *Component 2.3 (smart and sustainable water management):*
 - Construction works for improved water supply & treatment
 - Construction works for improved water collection & flood protection
 - Smart water management
 - Marine protection from oil pollution.

An economic input-output model was developed and applied for Cyprus to assess the short- and medium-term effect of each group of measures on economic activity and employment from a demand perspective, which means that investment in a specific sector creates demand for the products of the other sectors of the economy through its backward linkages. The model specification was presented by Taliotis et al. (2020)¹¹⁹, and was initially applied to assess green stimulus measures as shown by Zachariadis et al. (2021).¹²⁰ For the purpose of this study, the input-output model which covers all (sub)sectors was updated with most recent available official data.¹²¹

In summary, the effect of a measure on gross value added (GVA) and employment in the country depends on factors such as:

- To what extent new investments in a sector affect demand for intermediate goods/services in other sectors
- What part of intermediate inputs of a sector takes place in the country or depends on imports
- How labour-intensive are the local sectors affected by the new measures
- In case a measure reduces demand for some goods or services in other economic sectors, which production activities are displaced, how they are spread in different sectors, and how labour-intensive these displaced activities are.¹²²

Detailed tables with the assumptions about the above effects on each sector are available upon request.

Aggregate IO Assessment Results

Table A4.1 of the Appendix presents the economic and employment multipliers by economic industry/sector that resulted from the input-output model.¹²³ Most of these are

¹¹⁹ Taliotis C., Giannakis E., Karmellos M., Fylaktos N. and Zachariadis T., Estimating the economy-wide impacts of energy policies in Cyprus. *Energy Strategy Reviews* 29 (2020) 100495.

¹²⁰ Zachariadis T., Giannakis E., Taliotis C., Karmellos M., Fylaktos N., Howells M., Blyth W. and Hallegatte S., 2021. “Building Back Better” in Practice: A Science-Policy Framework for a Green Economic Recovery After COVID-19. Policy Research Working Paper no. WPS 9528; Washington, D.C.: World Bank Group.

¹²¹ The Statistical Service of Cyprus provided the latest available data for the year 2017.

¹²² This aspect has not been addressed in the model simulations shown here, because such effects are likely to happen in the medium and longer term, whereas the current results refer to short-term impacts only. They will be taken into account to the extent possible in the next stages of the impact assessment.

¹²³ These are Type 1 multipliers; for more details see Giannakis, E., & Mamuneas, T. P. (2018). Sectoral linkages and economic crisis: An input-output analysis of the Cypriot economy. *Cyprus Economic Policy Review*, 12(1), 28-40.

in line with corresponding IO simulations for other European economies. In particular, we find similar multiplier effects of investments in the construction sector (Ilhan and Yaman, 2011; Hung et al., 2019), ICT sector (Rohman, 2013; Keček et al., 2016) and consultation services (Mandras and Salotti, 2020), as reported for certain European countries.¹²⁴ Moreover, with regard to the impact of green measures of priority axis 2, similar multiplier effects for the same type of measures are reported for other EU countries such as Greece¹²⁵ and Spain¹²⁶, while the size of the estimated multipliers is in accordance with findings from widely-cited international studies.¹²⁷

Having obtained the multipliers from the input-output model simulations, it was then possible to assess the impacts of each priority axis and their related measures on GVA and employment for the short and medium term. The share of the taxes less subsidies was added to the GVA estimates to calculate GDP projections. These estimates are shown in Tables 4.1 and 4.2. Note that the impacts are adjusted for imports, which means that the tables show the local economic impact of each measure, in line with the GVA definition.

Table 4.1 presents all priority axes (aggregated across all their individual components) and thus enables a comparison between them in terms of costs and effects. Columns three to six present the main results of interest in percentage terms, i.e. the short- and medium-term effect of each priority axis on GDP and employment. It is evident that the IO simulations indicate an impact of the RRP investments of about 1.5% on GDP and employment in the short term, and a cumulative impact of 3.8% in the medium term, i.e. up to 2026.

¹²⁴ Hung, C. C., Hsu, S. C., Pratt, S., Chen, P. C., Lee, C. J., & Chan, A. P. (2019). Quantifying the linkages and leakages of construction activities in an open economy using multiregional input-output analysis. *Journal of Management in Engineering*, 35(1), 04018054.

Ilhan, B., & Yaman, H. (2011). A comparative input-output analysis of the construction sector in Turkey and EU countries. *Engineering, Construction and Architectural Management*, 18(3), 248-265.

Keček, D., Žajdela Hrustek, N., & Dušak, V. (2016). Analysis of multiplier effects of ICT sectors—a Croatian case. *Croatian Operational Research Review*, 7(1), 129-145

Mandras, G., & Salotti, S. (2020). An Input-Output Analysis of Sectoral Specialization and Trade Integration of the Western Balkans Economies. *Economies*, 8(4), 93.

Rohman, I. K. (2013). The globalization and stagnation of the ICT sectors in European countries: An input-output analysis. *Telecommunications Policy*, 37(4-5), 387-399.

¹²⁵ Markaki, M., Belegri-Roboli, A., Michaelides, P., Mirasgedis, S., & Lalas, D. P. (2013). The impact of clean energy investments on the Greek economy: An input-output analysis (2010-2020). *Energy Policy*, 57, 263-275.

¹²⁶ Medina, A., Cámara, Á., & Monrobel, J. R. (2016). Measuring the socioeconomic and environmental effects of energy efficiency investments for a more sustainable Spanish economy. *Sustainability*, 8(10), 1039.

¹²⁷ Garrett-Peltier, H. (2017). Green versus brown: Comparing the employment impacts of energy efficiency, renewable energy, and fossil fuels using an input-output model. *Economic Modelling*, 61, 439-447.

Table 4.1: Assessment of the short- and medium-term economic impact of RRP measures across all Priority Axes.

Priority Axes	Cost from RRP (mln €)	Short-term (2 years ahead) growth rates		Medium-term (5 years ahead) growth rates	
		GDP	Employment	GDP	Employment
Priority axis 1: Public health and civil protection - lessons learned from the pandemic	74.1	0.05%	0.04%	0.13%	0.10%
Priority axis 2: Accelerated transition to a green economy	448.3	0.51%	0.57%	1.28%	1.42%
Priority axis 3: Strengthening the resilience and competitiveness of the economy	449.4	0.54%	0.44%	1.36%	1.11%
Priority axis 4: Towards a digital era	89.5	0.11%	0.11%	0.27%	0.28%
Priority axis 5: Labour market, education and human capital	172.9	0.30%	0.30%	0.75%	0.76%
Total	1,234.1	1.52%	1.47%	3.79%	3.67%

Table A4.2 in the Appendix provides additional information by presenting the short- and medium-term effect of each priority axis on GDP and employment in (a) absolute terms, and (b) in the form of average multipliers (i.e. the corresponding impact per mln euro invested in a priority axis). In total, all measures of the RRP, which amount to slightly over 1,2 bln euro of public funds, are assessed to increase GDP by over 282 mln euro in the short term (2021-2023) and by 705 mln euro in the medium term (2021-2026). When it comes to the impact divided by the amount of funding, i.e. the average economic multipliers, the results show that GDP increases by 0,57 mln euro for each mln euro invested. The 282 mln euro increase from the RRP measures in the short-term suggests a 1.52% growth in GDP, while the 705 mln euro correspond to 3.79% growth in GDP by the time of completion of the whole RRP in 2026.¹²⁸ Further, the sum of all measures creates about 6500 jobs in the short-term (2021-2023) and more than 16,000 jobs in the medium-term (2021-2026), or about 13.1 new jobs per mln euro invested (Table A4.2). This can contribute to a significant reduction in the unemployment rate, which is currently 7.6%.¹²⁹ These results are close but not identical to those conducted with other methods and presented in the previous chapters because the IO model follows a different methodology

¹²⁸ GDP is for the year 2017. Source: National Accounts data, 2020, Statistical Service of Cyprus (Last update 02/03/2021).

¹²⁹ This refers to total unemployment: 34291 persons unemployed above the age of 15 years old. Source: Labour Force Survey, 2020, Statistical Service of Cyprus (Last Update 02/03/2021).

from those presented earlier and only captures the demand-driven effects of RRP measures, as will be explained below.

The main results of the assessment of the economic impact across all priority axes can be summarised as follows:

- According to the average multipliers per axis, priority axis 5 shows the best performance in terms of its effect on GDP. With a value-added multiplier of 0.81, national GDP increases by 0,81 mln euro for each mln euro invested in measures of this axis. Furthermore, it has the greatest relative impact on job creation, creating around 19 new jobs per mln euro invested. In absolute terms, investments in priority axes 3 and 2 (the axes with the largest budget request) generate around two thirds of the total number of jobs created.
- It has to be noted that the input-output model we employ does not distinguish between different types of labour (e.g. skilled vs. unskilled), consequently the employment effect mentioned above has to be interpreted with caution. Jobs contributing to sustainable economic growth will mostly be those for highly skilled workers, and not all sectors employ the same mix of skilled labour. Several studies have highlighted that the transition to digital services, clean energy and circular economy will mostly involve medium and highly skilled new jobs in Europe, thus inducing economic growth.¹³⁰
- Moreover, one has to keep in mind that multiplier estimates derived from the Leontief demand-driven IO model tend to overestimate the real impact on the economy caused by an exogenous increase in final demand, mainly in terms of labour generation due to the fact that economy does not exhibit the levels of excess capacity assumed by the model, especially in the short-run¹³¹.

In view of the aforementioned considerations, it is important to observe the distribution of jobs across economic activities as simulated by the model. To this end, Table A4.3 of the Appendix presents the distribution of investments (column three) as well as estimates of the short- and medium-term GDP and employment impact across economic sectors.

The investments in the Construction sector are the highest, followed by investments in Education, Professional, scientific and technical activities, Financial and insurance activities and Information and communication, sectors. With some exceptions, most of these sectors show middle - to - high output, value added and employment multipliers (columns three to five of Table A4.1). Since results depend on both the size of the investments as well as on the value of the multipliers in each economic activity, as expected the investments in sectors like the ones above also show the greatest impacts on the economy.

The direct, indirect and the total impact of investments on jobs created are shown in column 5 for the short-term and in column 7 for the medium term of Table A4.3. The investments related to the Construction sector generate the greatest number of jobs. The investments related to the Education sector, Financial and insurance activities, Accommodation and food service activities, Professional, scientific and technical activities, and Information and communication, follow in terms of job creation in the

¹³⁰ See the review in Section 5 of the report of the UN Sustainable Development Solutions Network: “[Transformations for the Joint Implementation of Agenda 2030 for Sustainable Development and the European Green Deal](#)”, February 2021.

¹³¹ Ten Raa, T. and Rueda-Cantuche, J.M., (2007). Stochastic Analysis of Input-Output Multipliers on the basis of Use and Make Matrices. *Review of Income and Wealth*, 53, 3, pp.1-17

economy. The impact of the green measures of policy axis 2, which was simulated in more detail as described above, is indicated separately in Table A4.3; green measures account for 39% of the total job creation potential according to IO results.

However, the GDP growth induced by these jobs varies substantially. Observing Table A4.4 of the Appendix, it is evident that Construction is amongst the lowest-paying sectors, with an average compensation of around 15 thousand euro. On the other hand, investments related to e.g., the Information and Communications sector create only around 60 jobs within the sector, but the value added by these jobs is much higher; with an average compensation of 43 thousand euro, Information and Communications is amongst the highest-paying sectors in the economy.¹³²

In what follows, section 4.4 presents the short- and medium-term effects of Priority axes 1, 3, 4 and 5 whereas the economic impact of the green economic recovery measures of priority axis 2 is presented separately in section 4.5.

Economic Impact of Priority axes 1, 3, 4 and 5 of the RRP

The short- and medium-term GDP and employment growth rates due to RRP measures by component are presented in Table 4.2, while Table A4.5 in the Appendix presents the short- and medium-term effect of RRP measures by component on GDP and employment (a) in absolute terms and (b) in the form of average multipliers (i.e. the corresponding impact per million euro invested in a component).

. Table 4.2: Short- and medium-term economic impact of RRP measures by component.

¹³² Data are from Eurostat and the Statistical Service of Cyprus, 2019.

Components	Cost from RRP (mln €)	Short-term (2 years ahead) growth rates		Medium-term (5 years ahead) growth rates	
		GDP	Employment	GDP	Employment
1.1 Resilient and Effective Health System, enhanced Civil Protection	74.1	0.05%	0.04%	0.13%	0.10%
2.1 Climate neutrality	269.3	0.39%	0.42%	0.97%	1.05%
2.2 Sustainable Transport	91.3	0.08%	0.10%	0.20%	0.26%
2.3 - Smart and Sustainable Water Management	87.6	0.04%	0.04%	0.11%	0.10%
3.1 New Growth Model and diversification of the economy	166.4	0.24%	0.25%	0.60%	0.63%
3.2 Enhanced Research & Innovation	64.0	0.06%	0.03%	0.16%	0.07%
3.3 Business support for competitiveness	78.4	0.09%	0.05%	0.23%	0.13%
3.4 Public and Local Administration Reform, Judicial reform and Anti-corruption reform	96.0	0.09%	0.08%	0.22%	0.19%
3.5 Safeguarding Fiscal and Financial Stability	44.5	0.06%	0.03%	0.15%	0.09%
4.1 Upgrade infrastructure for connectivity	53.0	0.09%	0.10%	0.22%	0.26%
4.2 Promote e-government	36.5	0.02%	0.01%	0.04%	0.02%
5.1 Educational system modernisation, upskilling and retraining	94.0	0.17%	0.18%	0.42%	0.45%
5.2 Labour Market	78.9	0.13%	0.12%	0.33%	0.31%
Total	1,234.1	1.52%	1.47%	3.79%	3.67%

According to our simulations, health-related measures (Priority Axis 1) increase GDP in the short-term by 10 mln euro (0.05%) and in the medium-term by 24 mln euro (0.13%), while in the medium-term they create around 1450 jobs in the affected sectors (i.e., 0.10% increase of employment). Investments that induce relatively more economic activity in sectors like the Construction sector generate the larger GDP and employment effects in relation to other measures of this priority axis. This is the result of both large investment budget and the high economic multipliers in Construction. Priority Axis 3 is the largest of all priority axes and is assessed to increase GDP in the medium term by 253 mln euro and create around 5000 jobs in the affected sectors. Digitalisation measures of Priority Axis 4 are assessed to increase GDP in the medium term by 49 mln euro and create around 1.220 jobs in the affected sectors. Finally, measures of Priority Axis 5 increase GDP by around 140 mln euro in the medium term and create around 3340 jobs.

Economic Impact of Green Investments - Priority axis 2 of the RRP

This section presents the results on the short- and medium-term economic impact of the green economic recovery measures that have been included in priority axis 2 of the RRP of Cyprus. The first two components (2.1 and 2.2) are the major ones that will yield environmental benefits in the field of clean energy and climate change mitigation, and required more detailed energy and emissions modelling, which was conducted in the frame of this study. Therefore, apart from simulations with the input-output model, this section provides additional calculations of the economic benefits of measures of components 2.1 and 2.2 due to reduced fuel import costs and improved environmental performance and discusses the results in view of recent findings from other studies in the international literature.

As shown in Tables 4.2 and A4.2, green measures promoting climate action and sustainable mobility are assessed to increase GDP by 239 mln euro (1.28%) and create

6330 jobs (1.42%) in the affected sectors. Overall, they turn out to have in the medium term a GDP multiplier of 0.53, i.e. increase national GDP by 0,53 mln euro for each mln euro invested in these measures and create about 13.9 new jobs per mln euro invested.

For each category of measures, the costs foreseen in the RRP were taken into account, along with assumptions about the level of private funds to be mobilised thanks to these measures. Among the sub-components, the component 2.1 'climate neutrality' has the highest average GDP and employment multipliers, that is, 0.67 and 17.2, respectively (Table A4.5). More specifically, the most growth-enhancing measures are those related to energy efficiency and sustainable mobility as they induce relatively more economic activity in local branches like construction and manufacture of metal products. Conversely, measures related to electrification of transport have relatively low growth and job impacts as a large part of these expenditures is spent on imported goods (electric vehicles) with limited national value added.

Even if these effects of green stimulus seem to be relatively low, it is important to keep in mind three additional considerations:

- A previous analysis that was carried out by the authors with similar data¹³³ revealed that most green recovery measures stimulate economic growth more strongly than an untargeted economy-wide stimulus package. More broadly, international studies demonstrate that green recovery policies are superior for economic output and employment. Recent simulations for several European countries show that a Green Recovery Plan has a consistently larger economic and employment effect in comparison to a 'Return-to-Normal' stimulus plan.¹³⁴ This finding is in line with those of the European Commission's Impact Assessment on stepping up Europe's 2030 climate ambition that was published in September 2020.¹³⁵
- Green measures are an important ingredient of recovery packages not only because of their economic impacts but also due to their effectiveness in enabling the low-carbon transition envisaged by EU policy, in line with the objective of the Paris agreement for global climate stabilisation.
- Green measures yield additional economic benefits that are not captured by the input-output model used in this analysis. These are outlined and quantified in the next section.

¹³³ Zachariadis et al. (2021) – see footnote 3.

¹³⁴ Pollitt, H., 2020. Assessment of Green Recovery Plans After COVID-19. Cambridge Econometrics, Cambridge, October.

¹³⁵ European Commission, Impact Assessment Accompanying the Communication on Stepping up Europe's 2030 climate ambition – Investing in a climate-neutral future for the benefit of our people. Document SWD(2020) 176 final, Brussels, September 2020.

Broader effect of green measures on social welfare

Policies and measures that promote energy efficiency, clean energy and sustainable mobility have additional benefits:

- They increase the productivity of the economy – an aspect that is addressed in other sections of this report.
- They increase energy security of Cyprus by reducing the dependence on imported fuels that are used in motor vehicles and power generation.
- They curb fuel import costs of the country, improving eventually its trade balance.
- They reduce air pollution and thereby improve the quality of life, especially in urban areas.

The last two effects have been quantified for the categories of measures of components 2.1 and 2.2. To calculate the change in fuel import costs, savings in final energy demand by each group of measures were calculated on the basis of runs of the OSeMOSYS model used for energy planning in Cyprus¹³⁶, multiplied by the import cost of automotive fuels (i.e. their retail prices net of taxes) and fuels used by the Electricity Authority of Cyprus.

To compute the environmental benefit, we employed air emissions data and calculations that have been used in national energy planning studies of Cyprus to assess the reduction in emissions of carbon dioxide (CO₂), nitrogen oxides (NO_x), sulphur dioxide (SO₂) and particulate matter (PM). We then monetised these decreases in emissions by employing estimates of the marginal damage costs per tonne of each one of these substances, based on nationally adapted externality estimates.¹³⁷

Table A4.6 presents these calculations, which show that the green recovery measures of components 2.1 and 2.2 of the RRP are expected to yield benefits of the order of 38 mln euro due to reduced fuel imports and improved environmental quality by the end of the Recovery Plan (2026). Note that the fuel savings and avoided environmental damages will be accumulated throughout the entire lifetime of these investments beyond the period of the Plan, so that they will lead to long-term benefits to the Cypriot economy and society.

Other green measures of policy axis 2 of the RRP are associated with better water management, marine pollution reduction, and improvement of infrastructure for nature protection. These have additional environmental benefits, due to avoided external damages from water scarcity and water pollution, and improved absorption of carbon dioxide from the atmosphere due to forest protection.

Conclusions of the IO modelling assessment

This chapter described the approach and results for assessing the short- and medium-term economic impact of the RRP measures of Cyprus with an IO method. In total, all measures, which amount to 1,2 bln euro of public funds, are expected to increase GDP in the short term by 282 mln euro or 1.52% compared to the baseline, and by 705 mln euro or 3.79% in the medium-term, which corresponds to increasing GDP by 0.57 mln euro for each mln euro invested. Furthermore, together all measures create more than 16000 jobs, or about 13.1 new jobs per mln euro invested. This can contribute to significantly reducing the unemployment rate in Cyprus, which is currently 7.6%.

¹³⁶ See e.g. the impact assessment (Chapter 5) of the 2020 [National Energy and Climate Plan of Cyprus](#) that was conducted by the authors.

¹³⁷ Sotiriou, C., Michopoulos, A., Zachariadis, T., 2019. [On the cost-effectiveness of national economy-wide greenhouse gas emissions abatement measures](#). *Energy Policy*, 128, 519–529.

Results show that investments in the Construction sector will create the greatest number of jobs, both within the sector as well in other sectors of the economy. Investments in sectors like Education, Professional, scientific and technical activities, Information and communication, Financial and insurance activities as well as Accommodation and food service activities, follow in terms of job creation in the economy. The value added created by these jobs however varies substantially. For example, Construction is amongst the lowest-paying sectors, whereas e.g. the Information and Communications sector, although it is simulated to experience a much smaller increase in employment, is amongst the highest-paying sectors in the economy.

As far as the specific priority axes are concerned, investments in priority axes 3 and 2 (the axes with the largest budget demands) generate around two thirds of the total number of jobs created. Judging by the relative impact of the measures, priority axis 5 shows the largest growth-enhancing impact, with a GDP multiplier of 0.81. Further, it creates about 19 new jobs per mln euro invested.

As regards especially the green measures of priority axis 2, they are simulated to mobilise additional private funds of the order of 448 mln euro, increase GDP by 239 mln euro, create over 6200 new jobs in the affected sectors, and yield additional long-lasting benefits of the order of 38 mln euro per year due to reduced fuel imports and improved environmental quality. According to the Coalition of Finance Ministers for Climate Action – a group of fifty-two Finance Ministers (including the Finance Minister of Cyprus) engaged in efforts to address climate change through economic and financial policies – the right investments at this stage will need to be labour-intensive in the short run and have high multipliers and environmental co-benefits.¹³⁸ The approach presented here attempts to capture these effects in order to provide a wide-ranging assessment of recovery measures, e.g., the importance of investments in energy efficiency and sustainable mobility. At the same time, it is likely that measures related to the transformation of businesses to adopt circular economy practices (which are part of component 3.1 of the RRP) can induce demand for highly skilled labour, perhaps even more than energy efficiency and construction-related measures. Such considerations have to be kept in mind when prioritising recovery investments and reforms.

¹³⁸ Stern N., Bhattacharya A. and Rydge J. (2020) Better Recovery, Better World: Resetting climate action in the aftermath of the COVID-19 pandemic. The Coalition of Finance Ministers for Climate Action, July 2020.

2.6 Concluding Remarks

Under the RRP, Cyprus is expected to draw significant funds totalling around 1,2 bln euro in the period 2021-2026. This report presents a comprehensive analysis of the economic impact assessment from the implementation of the RRP in Cyprus. More precisely, it provides estimates of the short- medium- and long-term economic effects of the RRP. It focuses on the impact of the RRP measures on key macroeconomic indicators such as GDP and Employment and on major sectors of the Cyprus economy. The analysis is based on several complementary methods and techniques - a Production Function approach, econometric methods based on alternative VAR specifications, and an Input-Output framework. These methods help to obtain multiple perspectives and insights on the potential economic impacts. On average all these methods yield broadly similar findings for the aggregate impact on GDP and employment growth¹³⁹.

Our PF approach evaluates the effects of RRP measures across all time horizons and accounts for reforms and it is therefore considered the primary method for this impact analysis. Results show that the RRP can increase the GDP of Cyprus by about 3% in the short-term two-year period and by around 7% in the medium-term five-year period, compared to the baseline development of the economy without the RRP. Reforms, among others, of public and local administration, the judicial, and the labour market would significantly affect productivity and GDP growth, in the medium-term and especially in the long-term. In the short- term, GDP growth is mainly induced directly by RRP investments and to a lesser extent by an increase in productivity and by additional employment stimulated by the Plan. In the medium-term, the effect of productivity becomes stronger due to the full implementation of reforms. In particular, the contribution of productivity to GDP and employment rises from 10.6% and 13.2% in the short-term and 23.5% and 29.3% in the medium-term. The Plan also increases employment by more than 2.5%, or by around 11,000 new jobs during the period 2021-2026, which can significantly reduce the unemployment rate in Cyprus.

The positive effects of the RRP are projected to be largely maintained in the long-term. GDP levels are expected to be 16.5% higher 20 years ahead (i.e. in 2041) compared to a scenario without RRP implementation. This is mainly due to the lasting contribution of productivity (reforms), if all reforms foreseen in the RRP are realised. Reforms account for around 60% and 75% of GDP and employment increase, respectively relative to the baseline scenario.

The results of the econometric analysis are in line with the above findings and show that the maximum effect of the RRP on the growth rates of GDP and employment is realised in 2025-2026, which coincides with the end of the period of implementation of the RRP. Finally, the input-output analysis offered insights into the sectors of the economy that will be most significantly affected and assessed the broader welfare impacts of the Plan's green economy measures of the RRP due to environmental co-benefits.

¹³⁹ Table A4.7 summarizes the aggregate results obtained from the alternative methods for the RRP impact assessment on the aggregate GDP and Employment growth as a percentage difference from the policy neutral baseline over the three different horizons.

APPENDIX

Table A4.1: Multipliers by Industry/Sector.

Sector-Industry/name	Share of local intermediate inputs to total	Output Multipliers	GVA Multipliers	Employment multipliers
CPA_A01 - Products of agriculture, hunting and related services	0.65	1.66	0.55	22.03
CPA_A02 - Products of forestry, logging and related services	0.67	1.15	0.90	15.66
CPA_A03 - Fish and other fishing products; aquaculture products; support services to fishing	0.68	1.54	0.70	12.51
CPA_B - Mining and quarrying	0.34	1.46	0.24	6.93
CPA_C10-12 - Food, beverages and tobacco products	0.50	1.69	0.36	12.74
CPA_C13-15 - Textiles, wearing apparel, leather and related products	0.05	1.06	0.05	2.49
CPA_C16 - Wood and of products of wood and cork, except furniture; articles of straw and plaiting materials	0.55	1.65	0.44	20.10
CPA_C17 - Paper and paper products	0.24	1.29	0.17	5.50
CPA_C18 - Printing and recording services	0.94	1.79	0.61	19.93
CPA_C19 - Coke and refined petroleum products	0.00	1.00	0.00	0.01
CPA_C20 - Chemicals and chemical products	0.08	1.10	0.08	2.00
CPA_C21 - Basic pharmaceutical products and pharmaceutical preparations	0.26	1.27	0.28	4.59
CPA_C22 - Rubber and plastic products	0.24	1.27	0.16	4.98
CPA_C23 - Other non-metallic mineral products	0.63	1.71	0.44	8.93
CPA_C24 - Basic metals	0.18	1.22	0.14	2.88
CPA_C25 - Fabricated metal products, except machinery and equipment	0.62	1.63	0.43	11.87
CPA_C26 - Computer, electronic and optical products	0.03	1.04	0.04	0.32
CPA_C27 - Electrical equipment	0.09	1.12	0.08	2.49
CPA_C28 - Machinery and equipment n.e.c.	0.10	1.13	0.11	2.59
CPA_C29 - Motor vehicles, trailers and semi-trailers	0.01	1.01	0.01	0.35
CPA_C30 - Other transport equipment	0.01	1.01	0.01	0.09
CPA_C31_32 - Furniture and other manufactured goods	0.17	1.21	0.19	6.71
CPA_C33 - Repair and installation services of machinery and equipment	0.91	1.63	0.69	16.96
CPA_D - Electricity, gas, steam and air conditioning	1.00	1.68	0.49	7.16
CPA_E36 - Natural water; water treatment and supply services	1.00	2.31	0.72	8.73
CPA_E37-39 - Sewerage services; sewage sludge; waste collection, treatment and disposal services; materials recovery services; remediation services and other waste management services	0.99	1.71	0.85	14.97
CPA_F - Constructions and construction works	1.00	2.33	0.69	21.79
CPA_G45 - Wholesale and retail trade and repair services of motor vehicles and motorcycles	1.00	1.72	0.67	28.26
CPA_G46 - Wholesale trade services, except of motor vehicles and motorcycles	0.95	1.53	0.82	20.88
CPA_G47 - Retail trade services, except of motor vehicles and motorcycles	1.00	1.60	0.86	28.77
CPA_H49 - Land transport services and transport services via pipelines	0.85	1.59	0.63	16.70
CPA_H50 - Water transport services	0.99	2.21	0.70	7.08
CPA_H51 - Air transport services	0.16	1.21	0.01	2.20
CPA_H52 - Warehousing and support services for transportation	0.65	2.07	0.41	7.43
CPA_H53 - Postal and courier services	0.88	1.62	0.74	23.56
CPA_I - Accommodation and food services	0.92	1.74	0.75	24.17
CPA_J58 - Publishing services	0.83	2.08	0.50	5.83
CPA_J59_60 - Motion picture, video and television programme production services, sound recording and music publishing; programming and broadcasting services	0.54	1.50	0.56	13.58
CPA_J61 - Telecommunications services	0.73	1.66	0.69	8.01
CPA_J62_63 - Computer programming, consultancy and related services; information services	0.54	1.77	0.34	3.94
CPA_K64 - Financial services, except insurance and pension funding	0.71	1.75	0.64	8.10
CPA_K65 - Insurance, reinsurance and pension funding services, except compulsory social security	0.63	1.78	0.49	9.32
CPA_K66 - Services auxiliary to financial services and insurance services	0.62	1.92	0.39	6.04
CPA_L68A - Imputed rents of owner-occupied dwellings	1.00	1.56	0.90	4.75
CPA_L68B - Real estate services excluding imputed rents	1.00	1.30	0.94	2.74
CPA_M69_70 - Legal and accounting services; services of head offices; management consultancy services	0.81	1.42	0.84	13.03
CPA_M71 - Architectural and engineering services; technical testing and analysis services	0.68	1.40	0.76	25.73
CPA_M72 - Scientific research and development services	0.27	1.16	0.62	2.26
CPA_M73 - Advertising and market research services	0.36	1.49	0.25	6.96
CPA_M74_75 - Other professional, scientific and technical services and veterinary services	0.94	1.97	0.63	20.86
CPA_N77 - Rental and leasing services	0.39	1.34	0.55	8.06
CPA_N78 - Employment services	0.97	1.56	0.83	25.50
CPA_N79 - Travel agency, tour operator and other reservation services and related services	1.00	1.52	0.87	22.77
CPA_N80-82 - Security and investigation services; services to buildings and landscape; office administrative, office support and other business support services	0.89	1.55	0.77	41.03
CPA_O - Public administration and defence services; compulsory social security services	0.84	1.24	0.92	21.68
CPA_P - Education services	1.00	1.27	0.93	26.57
CPA_Q86 - Human health services	1.00	1.53	0.81	19.77
CPA_Q87_88 - Residential care services; social work services without accommodation	1.00	1.57	0.83	38.11
CPA_R90-92 - Creative, arts, entertainment, library, archive, museum, other cultural services; gambling and betting services	0.47	1.37	0.62	11.05
CPA_R93 - Sporting services and amusement and recreation services	0.96	1.72	0.78	20.04
CPA_S94 - Services furnished by membership organisations	1.00	1.62	0.85	31.32
CPA_S95 - Repair services of computers and personal and household goods	0.56	1.45	0.53	9.09
CPA_S96 - Other personal services	0.98	1.38	0.89	28.10

Table A4.2: Assessment of the short- and medium-term economic impact of RRP measures across all Priority Axes in absolute terms (mln €) and in the form of average multipliers.

Priority Axes	Cost from RRP (mln €)	Short-term (2 years ahead)		Medium-term (5 years ahead)			
		Impact on GDP (mln €)	Impact on jobs (FTE)	Impact on GDP (mln €)	Impact on jobs (FTE)	Impact on GDP (mln € per mln € invested)	Impact on jobs (FTE per mln € invested)
Priority axis 1: Public health and civil protection - lessons learned from the pandemic	74.1	9.8	179	24.4	448	0.33	6.0
Priority axis 2: Accelerated transition to a green economy	448.3	95.4	2491	238.6	6226	0.53	13.9
Priority axis 3: Strengthening the resilience and competitiveness of the economy	449.4	101.4	1950	253.5	4874	0.56	10.8
Priority axis 4: Towards a digital era	89.5	19.7	489	49.4	1222	0.55	13.7
Priority axis 5: Labour market, education and human capital	172.9	55.8	1337	139.5	3343	0.81	19.3
Total	1,234.1	282.1	6445	705.4	16113	0.57	13.1

Note: the average multipliers (i.e. the corresponding impact per mln euro invested in a priority axis) are derived from estimated sectoral analysis multipliers based on the corresponding investments and reforms that belong to each sector.

Table A4.3: Short- and medium-term economic impact of measures by economic sector.

	Sector name	Cost from RRP (mln €)	Short-term impact (2021-2023)		Medium-term impact (2021-2023)	
			Impact on GDP (mln €)	Impact on jobs (FTE)	Impact on GDP (mln €)	Impact on jobs (FTE)
A	Agriculture, forestry and fishing	0.1	0.01	0.36	0.03	0.91
B	Mining and quarrying	0.01	0.0004	0.01	0.001	0.02
C	Manufacturing	1.6	0.04	1.04	0.11	2.6
E	Water supply; sewerage, waste management and remediation activities	0.03	0.01	0.2	0.03	0.5
F	Construction	300.9	82.9	2612.6	207.2	6531.4
G	Wholesale and retail trade; repair of motor vehicles and motorcycles	0.2	0.088	1.96	0.22	4.9
H	Transportation and storage	10.5	2.8	58.4	7.1	146
I	Accommodation and food service activities	17.2	6	167.2	14.9	418
J	Information and communication	207.6	22.3	55.1	55.8	138.7
K	Financial and insurance activities	72.4	16.6	182.1	41.5	455.2
L	Real estate activities	2.3	1.1	2.8	2.8	7
M	Professional, scientific and technical activities	105.8	24.7	136.2	61.7	341.4
N	Administrative and support service activities	4.5	1.5	32.1	3.7	80.3
O	Public administration and defence; compulsory social security	0.01	0.004	0.09	0.01	0.23
P	Education	54.6	25.4	634.6	63.6	1586.6
Q	Human health and social work activities	8	3.3	69.1	8.1	172.8
R	Arts, entertainment and recreation	0.01	0.004	0.082	0.009	0.205
S	Other service activities	0.03	0.004	0.057	0.01	0.141
	Priority Axis 2. Accelerated transition to a green economy	448.3	95.4	2,491	238.6	6,226
	Total	1,234.10	282.1	6,445	705.4	16,113

Table A4.4: Average compensation by economic sector.

Section	Sector name	Average compensation (thousand €)
A	Agriculture, forestry and fishing	10.3
B	Mining and quarrying	23.8
C	Manufacturing	23.9
E	Water supply; sewerage, waste management and remediation activities	23.9
F	Construction	14.8
G	Wholesale and retail trade; repair of motor vehicles and motorcycles	16.6
H	Transportation and storage	26.3
I	Accommodation and food service activities	19.6
J	Information and communication	43.2
K	Financial and insurance activities	48.3
L	Real estate activities	15.5
M	Professional, scientific and technical activities	22.7
N	Administrative and support service activities	19.8
O	Public administration and defence; compulsory social security	43.9
P	Education	31.4
Q	Human health and social work activities	24.8
R	Arts, entertainment and recreation	16.6
S	Other service activities	10.0
	Total Economy	23.8

Source: Eurostat and Statistical Service of Cyprus, 2019.

Table A4.5: Assessment of the short- and medium-term effect of RRP measures by component on GDP and employment in absolute terms and in the form of average multipliers.

Components	Cost from RRP (mln €)	Short-term (2 years ahead)		Medium-term (5 years ahead)			
		Impact on GDP (mln €)	Impact on jobs (FTE)	Impact on GDP (mln €)	Impact on jobs (FTE)	Impact on GDP (mln € per mln € invested)	Impact on jobs (FTE per mln € invested)
1.1 Resilient and Effective Health System, Enhanced Civil Protection	74.1	9.8	179	24.4	448	0.33	6.0
2.1 Climate neutrality	269.3	72.4	1,850	181.0	4,624	0.67	17.2
2.2 Sustainable Transport	91.3	14.7	456	36.8	1,141	0.40	12.5
2.3 - Smart and Sustainable Water Management	87.6	8.3	184	20.8	461	0.24	5.3
3.1 New Growth Model and diversification of the economy	166.4	44.7	1,113	111.7	2,782	0.67	16.7
3.2 Enhanced Research & Innovation	64.0	11.8	123	29.6	307	0.46	4.8
3.3 Business support for competitiveness	78.4	17.2	222	42.9	554	0.55	7.1
3.4 Public and Local Administration Reform, Judicial reform and Anti-corruption reform	96.0	16.4	341	41.0	854	0.43	8.9
3.5 Safeguarding Fiscal and Financial Stability	44.5	11.3	151	28.3	377	0.64	8.5
4.1 Upgrade infrastructure for connectivity	53.0	16.7	458	41.8	1,145	0.79	21.6
4.2 Promote e-government	36.5	3.0	31	7.5	77	0.21	2.1
5.1 Educational system modernisation, upskilling and retraining	94.0	31.1	789	77.7	1,974	0.83	21.0
5.2 Labour Market	78.9	24.7	548	61.8	1,370	0.78	17.4
Total	1,234.1	282.1	6,445	705.4	16,113	0.57	13.1

Table A4.6: Assessment of the medium-term economic benefits of measures included in components 2.1 and 2.2 of the RRP due to reduced fuel imports and improved environmental performance.

Project Category	Measures of draft RRP addressed	Component	Annual energy and emission savings		Annual energy and emissions impact					Annual cost savings due to energy savings (mio €)	Annual cost savings due to reduced environmental damages (mio €)	Total annual cost savings (mio €)
			Energy savings (tonnes oil equivalent per mio € invested)	Carbon emission savings (tonnes CO2 equivalent per mio € invested)	Energy savings (tonnes oil equivalent / y)	Carbon emission savings (tonnes CO2 equivalent / y)	NOx emission savings (tonnes/y)	SO2 emission savings (tonnes/y)	PM emission savings (tonnes/y)			
Energy Efficiency - Buildings in Residential & Commercial Sector	15, 16, 17 (50% of budget as the rest accounts for PVs) + measure 25 (interconnector) + measures 19+22 (grants to public sector)	2.1 - Climate neutrality etc.	23.3	201.6	4431.8	38295.6	78.233	238.527	3.447	1.773	6.803	8.576
Renewable Energy - Photovoltaics & Wind Turbines	50% of the energy efficiency measures + measures 20 (investment 6) + 24 (investment 10)	2.1 - Climate neutrality etc.	23.33	201.6	8067.2	69709.3	142.406	434.189	6.274	3.227	12.383	15.610
Smart Electricity Meters	21 (investment 7)	2.1 - Climate neutrality etc.	13.5	116.3	470.9	4069.2	8.313	25.345	0.366	0.188	0.723	0.911
Reduction of CO2 emissions in industries, businesses and organisations	18 (investment 4)	2.1 - Climate neutrality etc.	25.0	150.0	883.3	5300.0	10.827	33.011	0.477	0.353	0.942	1.295
Sustainable Urban Mobility Plans - Promotion of Public & Non-Motorised Transport	29 (investment 1)	2.2 - Sustainable Transport	141.0	395.0	4441.5	12442.5	33.180	20.738	4.148	3.781	1.732	5.514
Electric Vehicles - Grants for Chargers with PV	36 (investment 7)	2.2 - Sustainable Transport	20.0	50.0	68.7	171.7	0.458	0.286	0.057	0.058	0.024	0.082
Electric Vehicles - Promotion of purchase of electric cars	31 (investment 3)	2.2 - Sustainable Transport	20.0	50.0	4631.1	11577.7	30.874	19.296	3.859	3.943	1.612	5.555
Electric Vehicles - Installation of charging stations	Measure 34 & 35 (investments 5 & 6)	2.2 - Sustainable Transport	20.0	50.0	149.1	372.8	0.994	0.621	0.124	0.127	0.052	0.179
Total					23144	141939	305.3	772.0	18.8	13.5	24.3	37.7

Table A4.7: Summary results of the three alternative methods for the RRP impact assessment on the aggregate cumulative GDP and Employment growth as a percentage difference from the policy-neutral baseline over the three different horizons

	Quantification of the impact					
	% difference from policy-neutral baseline					
	Short-term		Medium-term		Long-term	
	(2 years ahead)		(5 years ahead)		(20 years ahead)	
	GDP	Employment	GDP	Employment	GDP	Employment
Production Function - Growth Accounting framework	2.9%	1.1%	6.8%	2.6%	16.5%	6.2%
Econometric Analysis based on VAR models	0.6- 1.3%	0.4-0.6%	3.4%- 5.6%	1.8-2.8%		
Input-Output (IO) framework	1.52%	1.47%	3.79%	3.67%		

2.7 Public finances impact

The budget balance of the general government, as a percent of GDP, is expected to be positively affected from the provision of RRP grants by about 1.44 percentage points during the first 2 years of the projects'/reforms' implementation, which are estimated to increase real GDP by 2.9% in the short term. During the medium-term, real GDP is expected to further increase through RRP grants by 6.8% in a period of 5 years ahead, estimated to positively impact public finances by 3.44 percentage points of GDP in total. Finally, in a period of 20 years after, the provision of RRP grants is forecast to further increase real GDP by 16.5% in total, providing an estimated improvement of the budget balance of about 8.32 percentage points of GDP.

The improvement in public finances of a yearly average of about 0.5 percentage points of GDP, is expected to originate through a boost in productivity stemming mainly from structural reforms, from an improvement in labour market conditions, as well as from government investments, leading in a rise in labour income, in private consumption, and consequently a rise in public revenue from taxes.

ANNEX

ANNEX 1

CSR – RRP – Cohesion Policy mapping

ANNEX**ANNEX 1 – CSR – RRP – Cohesion Policy mapping**

TABLE A: PRIORITIES CONTRIBUTING TO CSRs

CSR	Sub-CSR	RRP Component	Cohesion Policy Objective
2019 CSR1.1	Adopt key legislative reforms to improve efficiency in the public sector, in particular as regards the functioning of the public administration and the governance of State-owned entities and local governments.	3.4; 5.2	
2019 CSR1.2	Address features of the tax system that may facilitate aggressive tax planning by individuals and multinationals, in particular by means of outbound payments by multinationals.	3.5	
2019 CSR2.1	Facilitate the reduction of non-performing loans including by setting up an effective governance structure for the State-owned asset management company, taking steps to improve payment discipline and strengthening the supervision of credit-acquiring companies.	3.5	
2019 CSR3.1	Complete reforms aimed at increasing the effectiveness of the public employment services and reinforce outreach and activation support for young people.	3.4; 5.2	Policy Objective 4
2019 CSR3.2	Deliver on the reform of the education and training system, including teacher evaluation, and increase employers' engagement and learners' participation in vocational education and training, and affordable childhood education and care.	5.1; 5.2	Policy Objective 4
2019 CSR3.3	Take measures to ensure that the National Health System becomes operational in 2020, as planned, while preserving its long-term sustainability.	1.1	

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CSR	Sub-CSR	RRP Component	Cohesion Policy Objective
2019 CSR4.1	Focus investment-related economic policy on sustainable transport, environment, in particular waste and water management, energy efficiency and renewable energy, digitalisation, including digital skills, and research and innovation, taking into account territorial disparities within Cyprus.	2.1; 2.2; 2.3; 3.1; 3.2; 3.3; 3.4; 4.1; 4.2; 5.1; 5.2	Policy Objective 1 Policy Objective 2 Policy Objective 3
2019 CSR4.2	Adopt legislation to simplify the procedures for strategic investors to obtain necessary permits and licences.	3.3	
2019 CSR4.3	Improve access to finance for SMEs.	3.1; 3.2; 3.3	Policy Objective 1 Policy Objective 2
2019 CSR4.4	Resume the implementation of privatisation projects.	3.3	
2019 CSR5.1	Step up efforts to improve the efficiency of the judicial system, including the functioning of administrative justice and revising civil procedures, increasing the specialisation of courts and setting up an operational e-justice system.	3.4	
2019 CSR5.3	Accelerate anti-corruption reforms, safeguard the independence of the prosecution and strengthen the capacity of law enforcement.	3.4	
2020 CSR1.1	Take all necessary measures, in line with the general escape clause of the Stability and Growth Pact, to effectively address the COVID-19 pandemic, sustain the economy and support the ensuing recovery.	3.1; 3.2; 3.3; 3.5	
2020 CSR1.2	When economic conditions allow, pursue fiscal policies aimed at achieving prudent medium-term fiscal positions and ensuring debt sustainability, while enhancing investment.	3.1 3.5	
2020 CSR1.3	Strengthen the resilience and capacity of the health system to ensure quality and affordable services, including by addressing health workers' working conditions.	1.1	
2020 CSR2.1	Provide adequate income replacement and access to social protection for all.	5.2	

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CSR	Sub-CSR	RRP Component	Cohesion Policy Objective
2020 CSR2.2	Strengthen public employment services, promote flexible working arrangements and improve the labour-market relevance of education and training.	3.4; 5.1; 5.2	Policy Objective 4
2020 CSR3.1	Secure adequate access to finance and liquidity, especially for SMEs.	3.3	Policy Objective 1 Policy Objective 2
2020 CSR3.2 2020 CSR3.3	Front-load mature public investment projects and promote private investment to foster the economic recovery. Focus investment on the green and digital transition, in particular on clean and efficient production and use of energy, waste and water management, sustainable transport, digitalisation, research and innovation.	2.1; 2.2; 2.3; 3.1; 3.2; 3.3; 3.4; 4.1; 4.2; 5.1;	Policy Objective 1 Policy Objective 2 Policy Objective 3
2020 CSR4.1	Step up action to address features of the tax system that facilitate aggressive tax planning by individuals and multinationals.	3.5	
2020 CSR4.2	Improve the efficiency and digitalisation of the judicial system and the public sector.	3.3; 3.4; 3.5; 4.2; 5.2	Policy Objective 1

TABLE B: FULL LIST OF COHESION POLICY OBJECTIVES AND PROJECTS CONTRIBUTING TO CSRs

CSR	Sub-CSR	Cohesion Policy Objectives and Projects
2019 CSR3.1	Complete reforms aimed at increasing the effectiveness of the public employment services and reinforce outreach and activation support for young people.	<p><u>Policy Objective 4</u></p> <p>Enhancement and Modernisation of the Department of Labour / Public Employment Services</p> <p>Subsidy Scheme for the employment of young people 15-29 NEETs</p> <p>Promotion of flexible working arrangements for young people 15-29 NEETs</p> <p>Training programmes for young people 15-29 NEETs to support their employability</p> <p>Outreach, Consulting and Guidance of young people 15-29 NEETs</p> <p>Aid Scheme to support Youth Entrepreneurship</p> <p>Traineeships for young University graduates</p>
2019 CSR3.2	Deliver on the reform of the education and training system, including teacher evaluation, and increase employers' engagement and learners' participation in vocational education and training, and affordable childhood education and care.	<p><u>Policy Objective 4</u></p> <ul style="list-style-type: none"> ● Development of the Technical and Vocational Education and Training ● School Actions of Social Inclusion ● Tuition coverage for children, aged 3y. up-to 4y. and 8m. old attending public kindergartens. ● Support for care services for children up-to 3y. and 8m. old.
2019 CSR4.1	Focus investment-related economic policy on sustainable transport, environment, in particular waste and water management, energy efficiency and renewable energy, digitalisation, including digital skills, and research and	<p><u>Policy Objective 1</u></p> <ul style="list-style-type: none"> ● Promotion of Digitalisation of SMEs ● Research and Innovation Programmes for the enhancement of R&I capacities ● Innovation in enterprises <p><u>Policy Objective 2</u></p>

CSR	Sub-CSR	Cohesion Policy Objectives and Projects
	<p>innovation, taking into account territorial disparities within Cyprus.</p>	<ul style="list-style-type: none"> • Coastal Protection and anti-flood measures in affected areas in Cyprus • Bicycle lanes in Nicosia • Promotion of multimodality and improvement of the southern access to Nicosia • Development of External Perimeter Arc of the Trench in Nicosia • Renovation of major avenues in Nicosia • Upgrading of bus stops and bus shelters • Configuration of the Main Axis for Nicosia Bus / Tram Lanes • Installation of Peripheral Urban Traffic Control Management Systems • National Plan for the introduction of sound curtains Energy Upgrade of dwellings and use of RES • Energy upgrade of existing school buildings • Energy upgrade of public buildings (including military camps) • Installation of Photovoltaic Parks • Replacement of old Water Supply Network for limiting water leakages and upgrading water quality • Development of the necessary infrastructure (dams/conveyors) for the utilisation of the tertiary treated recycled water • Upgrading of the Water Supply Network especially in Nicosia and the touristic areas • Construction of Sewerage Systems (networks/plant) • Installation of smart water Metering • Restoration of Landfills in Nicosia and Limassol

CSR	Sub-CSR	Cohesion Policy Objectives and Projects
		<ul style="list-style-type: none"> • Introduction and implementation of the “Pay as you throw system” in the local community • Utilisation of Waste Collected Separately • Prevention, Reduction and Separate Collection of Solid Waste in Troodos Mountain Areas and touristic areas • Natura 2000 Network Area Management • Sustainable Development Plan of Akamas National Forest Park and other actions for the protection and conservation of biodiversity <p><u>Policy Objective 3</u></p> <ul style="list-style-type: none"> • Upgrading of existing road networks to facilitate access to remote/mountainous areas. • Installation of Traffic Control Management System in Highways
2019 CSR4.3	Improve access to finance for SMEs.	<p><u>Policy Objectives 1 & 2</u></p> <ul style="list-style-type: none"> • Enhancement of Entrepreneurship • Enhancement of SMEs competitiveness in the Manufacturing Sector and other specific Economic Activities • Enhancement of competitiveness through the creation and development of clusters • Promotion for the Digitalisation of SMEs • Continuation of the current Energy Fund of Funds Financial Instrument
2020 CSR2.2	Strengthen public employment services, promote flexible working arrangements and improve the labour-market	<p><u>Policy Objective 4</u></p> <ul style="list-style-type: none"> • Enhancement and Modernisation of the Department of Labour / Public Employment Services.

CSR	Sub-CSR	Cohesion Policy Objectives and Projects
	relevance of education and training.	<ul style="list-style-type: none"> ● Promotion of flexible working arrangements for young people 15-29 NEETs. ● Promotion of flexible working arrangements for women. ● Development of the Technical and Vocational Education and Training. ● Training programmes for young people 15-29 NEETs to support their employability. ● Training programmes (upskilling/ reskilling) to support workforce's employability.
2020 CSR3.1	Secure adequate access to finance and liquidity, especially for SMEs.	<p><u>Policy Objectives 1 & 2</u></p> <ul style="list-style-type: none"> ● Enhancement of Entrepreneurship ● Enhancement of SMEs competitiveness in the Manufacturing Sector and other specific Economic Activities ● Enhancement of competitiveness through the creation and development of clusters ● Promotion of the Digitalisation of SMEs ● Financial Instrument
2020 CSR3.2	Front-load mature public investment projects and promote private investment to foster the economic recovery.	
2020 CSR3.3	Focus investment on the green and digital transition, in particular on clean and efficient production and use of energy, waste and water management, sustainable transport,	<p><u>Policy Objective 1</u></p> <ul style="list-style-type: none"> ● Promotion of Digitalisation of SMEs ● Research and Innovation Programmes for the enhancement of R&I capacities ● Innovation in enterprises

CSR	Sub-CSR	Cohesion Policy Objectives and Projects
	digitalisation, research and innovation.	<p>Policy Objective 2</p> <ul style="list-style-type: none"> • Coastal Protection and anti-flood measures in affected areas in Cyprus • Bicycle lanes in Nicosia • Promotion of multimodality and improvement of the southern access to Nicosia • Development of External Perimeter Arc of the Trench in Nicosia • Renovation of major avenues in Nicosia • Upgrading of bus stops and bus shelters/bus stations and electric buses • Configuration of the Main Axis for Nicosia Bus / Tram Lanes • Installation of Peripheral Urban Traffic Control Management Systems • National Plan for the introduction of sound curtains Energy Upgrade of dwellings and use of RES • Energy upgrade of existing school buildings • Energy upgrade of public buildings (including military camps) • Installation of Photovoltaic Parks • Replacement of old Water Supply Network for limiting water leakages and upgrading water quality • Development of the necessary infrastructure (dams/conveyors) for the utilisation of the tertiary treated recycled water • Upgrading of the Water Supply Network especially in Nicosia and the touristic areas • Construction of Sewerage Systems (networks/plant) • Installation of smart water Metering

CSR	Sub-CSR	Cohesion Policy Objectives and Projects
		<ul style="list-style-type: none"> • Restoration of Landfills in Nicosia and Limassol • Introduction and implementation of the “Pay as you throw system” in the local community • Utilisation of Waste Collected Separately • Prevention, Reduction and Separate Collection of Solid Waste in Troodos Mountain Areas and touristic areas • Natura 2000 Network Area Management • Sustainable Development Plan of Akamas National Forest Park and other actions for the protection and conservation of biodiversity <p><u>Policy Objective 3</u></p> <ul style="list-style-type: none"> • Upgrading of the existing road network to facilitate access to remote/mountainous areas. • Installation of Traffic Control Management System in Highways
2020 CSR4.2	Improve the efficiency and digitalisation of the judicial system and the public sector.	<p><u>Policy Objective 1</u></p> <ul style="list-style-type: none"> • Digitalisation projects in the public sector in the field of health and education, office automation of the public sector and Smart City infrastructure.

ANNEX 2

European Flagships - Existing Strategies – RRP mapping

ANNEX 2 - European Flagships - Existing Strategies - RRP mapping

Flagship	Existing Strategies and Targets	Reforms	Investments
<p>Power up - The frontloading of future-proof clean technologies and acceleration of the development and use of renewables.</p> <p><i>Contribution by components: 2.1, 2.2, 3.2 and 3.3.</i></p>	<p>Energy</p> <p>As set in the National Energy and Climate plan (NECP) for the years 2021 - 2030:</p> <ul style="list-style-type: none"> ● The quantitative targets for 2030 for increasing the share of renewable energy (RES) in energy consumption are: <ol style="list-style-type: none"> 1. Share of RES in gross final energy consumption to reach 23%; 2. Share of RES in gross final electricity consumption can reach at least 26%; 3. Share of RES in heating and cooling to reach 39%; 4. Share of RES in the transport sector to reach 14%. ● The quantitative targets for 2030 for improving energy efficiency are: <ol style="list-style-type: none"> 1. Obligatory target for achieving cumulative energy saving of 243,04 ktoe during 2021-2030, by taking measures above those set by EU legislation; 2. Final Energy Consumption of 2,0 Mtoe in 2030, representing 13% reduction in final energy consumption¹⁴⁰ (indicative); 	<ul style="list-style-type: none"> ● Green Taxation (Component 2.1) ● Independence of Cyprus Transmission System Operator (TSOC) from the incumbent Electricity Authority of Cyprus (Component 2.1) ● Digital One-Stop Shops to streamline RES projects permitting and to facilitate Energy Renovation in Buildings (Component 2.1) ● Energy Storage Regulatory Framework (Component 2.1) 	<ul style="list-style-type: none"> ● Promoting energy efficiency investments in SMEs, municipalities, communities and the wider public sector (Component 2.1) ● Promoting renewables and individual energy efficiency measures and tackling energy poverty in households with disabled people (Component 2.1) ● Encouraging the use of renewables and energy savings by local/wider public authorities as well as NGOs and facilitate the transition of local communities towards climate mitigation & adaptation (Component 2.1) ● Reduction of CO² emissions in industries, businesses and organisations (Component 2.1)

¹⁴⁰ Compared to the respective projection for Cyprus in the 2007 in the EU PRIMES 2007 Reference Scenario

Flagship	Existing Strategies and Targets	Reforms	Investments
	<p>3. Primary Energy Consumption of 2,4 Mtoe in 2030, representing 17% reduction in primary energy consumption¹⁴¹ (indicative).</p> <ul style="list-style-type: none"> ● The 2030 objectives for security of supply and the functioning of internal energy market are: <ol style="list-style-type: none"> 1. Market integration, increased flexibility in the electricity market and improving of the competition in the retail market; 2. Improving regional cooperation with neighbouring Greece, as well as with other Member States; 3. Developing the right approach to tackling energy poverty issues. <p>New technologies</p> <p>The second activity under the strategic plan of the Ministry of Education, Culture, Youth and Sports includes setting adequate standards and inspection of buildings (relating to investment 5). Study, research and setting of standards regarding sustainable school buildings in order to create pedagogically friendly schools with emphasis on the environmental design. This includes the use of new techniques and materials in order to achieve the best results with respect to cost, reliability, environmental impact and maintenance.</p>		<ul style="list-style-type: none"> ● Energy efficiency upgrading of government buildings (Component 2.1) ● Upgrading renewable energy and smart grids testing infrastructure at the University of Cyprus (Component 2.1) ● Mass installation and operation by the Distribution System Operator (DSO) of Smart Metering Infrastructure (Advanced Metering Infrastructure) (Component 2.1) ● Monitoring and reduction of GHG emissions in agriculture (Component 2.1) ● Forests fire protection (Component 2.1) ● Market Management System to facilitate the opening of the electricity market to competition (Component 2.1)

¹⁴¹ Compared to the respective projection for Cyprus in the 2007 in the EU PRIMES 2007 Reference Scenario

Flagship	Existing Strategies and Targets	Reforms	Investments
	<p>The Education sector holds an important position on the Government Program of the Presidency and is at the heart of the Government's effort for the development and prosperity of the citizens.</p> <p>Innovate and Smart Cyprus</p> <ul style="list-style-type: none"> ● R&I Strategy Framework “Innovate Cyprus” (2019-2023) ● Smart Specialisation Strategy <p>Climate and Circular Economy</p> <ul style="list-style-type: none"> ● National Climate and Energy Plan ● Adaptation to Climate Change National Plan ● Circular Economy Action Plan 		<ul style="list-style-type: none"> ● Ending energy isolation- Project of Common Interest “EuroAsia Interconnector” (Component 2.1) ● Support Scheme (Grants) for Charging Electric Vehicles from RES (Component 2.2) ● Thematic research and innovation funding programme on green transition (Component 3.2) ● Consulting services for SMEs (Component 3.3)
<p>Renovate -</p> <p>The improvement of energy efficiency of public and private buildings.</p> <p><i>Contribution by components:</i></p>	<p>Energy-efficient infrastructure</p> <p>Health</p> <p>The strategic plan of the Ministry of Health focuses on the healthcare sector reform including the operation of the National Healthcare System and the Autonomisation of Public Hospitals, so as to be more flexible and modernised.</p> <p>The COVID-19 pandemic demonstrated the need to further improvement and modernisation of existing infrastructures to the benefit of patients and public health especially in crisis periods. The proposed investments are towards the</p>	<ul style="list-style-type: none"> ● Water Resource Management Reform (Component 2.3) ● Genetic improvement of the Cyprus sheep and goat population (Component 3.1). ● Establishment of a Coordinating Body between Central and Local Government (Component 3.1). 	<ul style="list-style-type: none"> ● New facilities for the Cyprus Blood Establishment and procurement of the latest technology attendant equipment (Component 1.1) ● Purchase/replacement of medical equipment in hospitals (Component 1.1) ● Enhancement, modernisation and upgrade of Cyprus State Hospitals (Component 1.1)

Flagship	Existing Strategies and Targets	Reforms	Investments
<p><i>1.1, 2.1, 2.3, 3.1 and 3.4.</i></p>	<p>maintenance, improvement and protection of public health and the improvement of the quality of health services.</p> <p>All projects will follow national legislation and guidelines for the improvement of energy efficiency of buildings.</p> <p>Education</p> <p>According to the strategic plan of the Ministry of Education, Culture, Youth and Sports, Objective 3 refers to the improvement and modernisation of infrastructure, expansion and modernisation of existing ones.</p> <p>The aim is to create secure, creative, environmental and energy-efficiency schools with a pleasant school environment, accessible not only to students but to the whole society as well.</p> <p>The implementation of a program for the expansion in the use of renewable energy sources and the installation of thermal insulation aims to further improve the energy efficiency of school buildings.</p> <p>The specific investment aims at achieving the national targets for reducing greenhouse gas emissions by increasing the participation of Renewable Energy Sources in Public School energy consumption, enhancing energy supply security, promoting energy efficiency and renewable energy</p>		<ul style="list-style-type: none"> ● Promoting energy efficiency investments in SMEs, municipalities and the wider public sector (Component 2.1) ● Promoting renewables and individual energy efficiency measures and tackling energy poverty in households with disabled people (Component 2.1) ● Energy Efficiency Upgrading of public buildings (Component 2.1) ● Upgrading renewable energy and smart grids testing infrastructure at the University of Cyprus (Component 2.1) ● Smart Water and Sewerage Networks Management (Component 2.3) ● Enhancing the added value of the tourism sector with emphasis on the countryside, mountainous and remote areas (Component 3.1).

Flagship	Existing Strategies and Targets	Reforms	Investments
	<p>sources penetration and investing in energy storage systems, cooling and heating systems.</p> <p>Energy</p> <p>As stated previously, the NECP for the years 2021 - 2030 sets the quantitative targets for improving energy efficiency and increasing the share of renewable energy (RES) in energy consumption. Please refer to the figures presented under “Power-up” flagship.</p> <p>Building Renovation</p> <p>The national long-term strategy for building renovation has been submitted to the European Commission in May 2020. The specific objectives and milestones set for the buildings sector are:</p> <ol style="list-style-type: none"> 1. Indicative milestones for final energy demand in the building sector (houses and buildings of tertiary sector) up to 640 ktoe by 2050; 2. Measures in public buildings that deliver savings equal to energy upgrade of 3% of the total floor area of the buildings owned and used by the central public administration in order to meet the national minimum energy efficiency requirements, which translates to an annual energy saving of 1.31 GWh. <p>Innovative and Smart Cyprus</p>		<ul style="list-style-type: none"> ● Promotion of circular economy on hotel establishments (Component 3.1). ● Enrichment of the tourism product in rural, mountainous and remote areas (Component 3.1). ● Regeneration and Revitalisation of Nicosia Inner City (Component 3.4) ● Upgrading the infrastructure of Courts (Component 3.4)

Flagship	Existing Strategies and Targets	Reforms	Investments
	<ul style="list-style-type: none"> ● R&I Strategy Framework “Innovate Cyprus” (2019-2023) ● Smart Specialisation Strategy <p>Climate</p> <ul style="list-style-type: none"> ● National Climate and Energy Plan ● Adaptation to Climate Change National Plan 		
<p>Recharge and Refuel -</p> <p>The promotion of future-proof clean technologies to accelerate the use of sustainable, accessible and smart transport, charging and refuelling stations and extension of public transport.</p>	<p>Energy</p> <p>Contribution, among others, to the national RES and Energy Efficiency targets, as set in the National Energy and Climate plan for the years 2021 - 2030 (NECP).</p> <p>Ministry of Transport, Communications and Works - Department of Electrical and Mechanical Services</p> <ul style="list-style-type: none"> ● The investments promote the ‘European Strategy for Low-Emission Mobility’ which stresses the need for the decarbonisation of the transport sector and the reduction of its emissions, especially in urban areas, and highlights the important role that electromobility can play in contributing to those objectives; ● Furthermore, the investments are in line with Cyprus National Energy and Climate Plan (NECP); ● Cyprus transport target from RES was set to 14% in final Energy Consumption by 2030. 	<ul style="list-style-type: none"> ● Establishment of an Intelligent Transportation System (ITS) using Digital Twin technologies. (Component 2.2) ● Provide the regulatory framework for an interoperable and effective electric vehicle recharging infrastructure and an efficient EV recharging market (Component 2.2). ● Progressively phase out the most polluting vehicles, especially in polluted urban areas (Component 2.2). 	<ul style="list-style-type: none"> ● Establishment of an Intelligent Transportation System using Digital Twin technologies (Component 2.2). ● Implementation of Sustainable Urban Mobility Projects (SUMP) and accessibility enhancing measures (Component 2.2). ● Creation of electro-mobility infrastructure (Component 2.2). ● Promote widespread use of Electric Vehicles (EVs) (Component 2.2). ● Thematic research and innovation funding

Flagship	Existing Strategies and Targets	Reforms	Investments
<p><i>Contribution by components: 2.1, 2.2 and 3.2.</i></p>	<p>Innovative and Smart Cyprus</p> <ul style="list-style-type: none"> ● R&I Strategy Framework “Innovate Cyprus” (2019-2023) ● Smart Specialisation Strategy <p>Climate & Circular Economy</p> <ul style="list-style-type: none"> ● National Climate and Energy Plan ● Adaptation to Climate Change National Plan ● Circular Economy Action Plan 		<p>programme on green transition (Component 3.2).</p>
<p>Connect - The fast rollout of rapid broadband services to all regions and households, including fibre and 5G networks.</p> <p><i>Contribution by</i></p>	<p>Digital Infrastructure</p> <p>National Digital Strategy (2020-2030) - Digital Infrastructure Portfolio aimed at delivering the resilient, robust and secure infrastructure that will support Cyprus’ digital transformation enabling it to tap on the potential of frontier and emerging technologies. It entails programs aimed at delivering:</p> <p>1. National Broadband Plan - to enable Cyprus to achieve its national broadband objectives in alignment with the EU, increasing its Fibre to the Premises (FTTP) and 5G footprint, boosting the demand for very high capacity networks (VHCNs), promoting higher ultrafast broadband (at least 100Mbps) to achieve greater penetration especially in rural and suburban areas, reducing broadband prices etc;</p>	<ul style="list-style-type: none"> ● Empower the National Regulatory Authority (OCECPR) <i>(Component 4.1)</i>. ● Empower the national Broadband Competence Office (DEC of the DMRIDP) <i>(Component 4.1)</i>. 	<ul style="list-style-type: none"> ● Expansion of Very High Capacity Networks in underserved areas <i>(Component 4.1)</i>. ● Enhance building cabling to be “Gigabit-ready” and promote connectivity take-up <i>(Component 4.1)</i>. ● Submarine link to Greece <i>(Component 4.1)</i>.

Flagship	Existing Strategies and Targets	Reforms	Investments
<p><i>component:</i> 4.1</p>	<p>2. Fixed and Wireless Broadband infrastructure improvements – in accordance to the National Broadband plan objectives;</p> <p>3. Improved infrastructure control – to deal with overreliance on specific operators within the sector for the deployment and management of fixed and wireless broadband infrastructure and investigate the potential of state intervention in those areas where commercial operators are unlikely to invest.</p> <p>Broadband</p> <p>The new Cyprus Broadband Plan sets the following strategic objectives for 2025:</p> <ol style="list-style-type: none"> 1. Gigabit connectivity for all main socio-economic drivers; 2. All premises in organised communities (urban or rural) have access to internet connectivity offering a download speed of at least 100Mbps, which can be readily upgradable to 1 Gbps; 3. 100% of the population living in organised communities (urban or rural), and all major terrestrial transport paths to have uninterrupted 5G coverage with a download speed of at least 100 Mbps; 4. 70% of households have an internet connection (take-up) with a download speed of at least 100Mbps. 		

Flagship	Existing Strategies and Targets	Reforms	Investments
<p>Modernise -</p> <p>The digitalisation of public administration and services, including judicial and healthcare systems.</p> <p><i>Contribution by all components: 1.1, 2.1, 2.2, 2.3, 3.1, 3.2, 3.3, 3.4, 3.5, 4.1, 4.2, 5.1 and 5.2</i></p>	<p>Modernisation of Health</p> <p>The Strategy of the Ministry of Health 2021-2023 includes among its basic activities for the promotion of e-health and the development of a coordinated approach on e-health actions. The reforming of the healthcare system imposes the development of flexible e-health tools that will enable the easiest access of patients to healthcare and the more effective and efficient management of public health and the healthcare system overall.</p> <p>The establishment of the National e-health Authority enriches efforts towards this direction. Furthermore, the COVID-19 pandemic showed that strengthening the role & capabilities of the Ministry of Health Unit for Surveillance and Control of Communicable Diseases is essential to the public health system.</p> <p>The proposed reforms and investments under RRF fall within this direction. The project for “Design an electronic platform for the surveillance of Nosocomial Antibiotic Consumption and Healthcare” as well as the project for Cyprus Innovative Public Health ICT System (“CIPHIS” aims at the effective and efficient management of public health issues focusing on prevention especially in times of public health crisis. The project for “Deployment of generic cross border e-health services in Cyprus” will support the digital transition of the healthcare sector and strengthen the health system’s effectiveness and resilience on a harmonised cross border basis.</p>	<ul style="list-style-type: none"> ● National Centre for Clinical Evidence and Quality Improvement (Component 1.1). ● Design of an Electronic platform for the surveillance of Nosocomial Antibiotic Consumption and Healthcare - Associated Infections (Component 1.1). ● Digital One-Stop Shops to streamline RES projects permitting and to facilitate Energy Renovation in Buildings (Component 2.1). ● Establishment of an Intelligent Transportation System (ITS) using Digital Twin technologies. (Component 2.2) ● Water Resource Management Reform (Component 2.3). ● On-line, cloud-based platform for improving the trade and information symmetry in the fresh produce supply chain (Component 3.1). ● Establishment of a Coordinating Body between 	<ul style="list-style-type: none"> ● Cyprus Innovative Public Health ICT System (CIPHIS) (Component 1.1). ● Enhancement, modernisation and upgrade of Cyprus State Hospitals (Component 1.1). ● Deployment of generic cross border ehealth services in Cyprus (Component 1.1). ● Public warning system for supporting emergency operations through SMS (Component 1.1). ● Market Management System to facilitate the opening of the electricity market to competition (Component 2.1). ● Integrated Monitoring and Control Management System for the Water Development Department’s (WDD) infrastructure (Component 2.3). ● Smart Water and Sewerage Networks Management (Component 2.3).

Flagship	Existing Strategies and Targets	Reforms	Investments
	<p>Modernisation of the public administration</p> <p>Registrar of Companies and Official Receiver</p> <p>Maintaining an updated Register for all registered organisations and Intellectual Property rights, is one of the most important strategic goals of the Department of Registrar of Companies (DRCOR). The current existing systems and their use have become an inhibitor to the ability of the DRCOR to have up-to-date information and become a service-oriented organisation through digital services capabilities.</p> <p>The proposed projects, on the one hand aim to facilitate the digital transformation of the DRCOR by covering and automating the desired end-to-end processes and services of the department and increasing staff productivity while on the other, they aim to enhance the registrar's enforcement capabilities to monitor compliance and keep an up-to-date register of legal and identity owner information.</p> <p>Ministry of Foreign Affairs</p> <p>The Ministry of Foreign Affairs aims to upgrade its digital systems to achieve security, efficiency, effectiveness and manageability operated in a secure and green environment.</p> <p>Deputy Ministry of Shipping</p>	<p>Central and Local Government (Component 3.1).</p> <ul style="list-style-type: none"> ● Comprehensive national R&I Policy supported by data-driven policy tools to support the R&I Ecosystem and to enhance links between policy making and implementation (Component 3.2). ● Introduce policies and incentives to facilitate and foster access to publicly funded research infrastructure and laboratories (Component 3.2). ● Facilitation of Strategic investments (Component 3.3). ● Enhancing Fast-Track Business Activation Mechanism (Component 3.3). ● Modernisation of the Companies Law (Component 3.3). ● Design and establish a National Promotional Agency (Component 3.3). 	<ul style="list-style-type: none"> ● Enhancing the existing isotopic databases of Cypriot local traditional food/ drinks by developing a Blockchain platform, to ensure their identity (Component 3.1). ● Initiating the setup of the first Eco-Industrial Park (Component 3.1). ● Scheme for modernisation and digitalisation of enterprises engaged in manufacturing and trading of agricultural products (Component 3.1). ● Scheme for the Enhancement of Large Enterprises Competitiveness in the Manufacturing Sector (Component 3.1). ● Enhancing the added value of the tourism sector with emphasis on the countryside, mountainous and remote areas (Component 3.1). ● Promotion of circular economy on hotel

Flagship	Existing Strategies and Targets	Reforms	Investments
	<p>Modernisation and simplification of procedures with the introduction of digital infrastructure and methods, aiming to improve the efficiency and effectiveness of the SDM administration and upgrading the services offered by Cyprus as a shipping centre.</p> <p>National Digital Strategy</p> <ol style="list-style-type: none"> 1. Making technology work for people; 2. Creating a fair and competitive digital economy; 3. Creating an open, democratic and sustainable digital; 4. Making Cyprus a resilient regional player with a seamless business environment. <p>R&I Strategy Framework “Innovate Cyprus” (2019-2023)</p> <p>Smart Specialisation Strategy</p> <p>Export-orientated Cyprus</p> <p>Grant scheme for the support of extroversion and the openness of Cyprus firms to international trade in order to facilitate promotion of products and services abroad. This is in accordance with the Strategic Target. No. 4 of the MECI “Exports Promotion of Cyprus” undergone by the Trade Service.</p>	<ul style="list-style-type: none"> ● Enhance the administrative capacity and improve the functioning of public administration for better policy making and implementation (Component 3.4). ● Regulate flexible working arrangements in the public sector (Component 3.4). ● Introduce new framework for evaluation and selection process for filling public service vacancies and new regulations for the evaluation of employees’ performance (Component 3.4). ● Strengthen administrative capacity and transparency through the professionalisation of public procurement and further digitalisation of its process (Component 3.4). ● Enhancement of the capacity of the Law Office (Component 3.4). ● New legal framework for Local Authorities and relevant 	<p>establishments (Component 3.1).</p> <ul style="list-style-type: none"> ● Enrichment of the tourism product in rural, mountainous and remote areas (Component 3.1). ● Improvement and extension of the Cyprus Green Points Network and creation of a network of Collection Points and Recycling Corners (Component 3.1). ● Waste Management towards Circular Economy (Component 3.1). ● Establishment of the Orounda Livestock Waste and Animal-By-Product (ABP) Management Facilities (Component 3.1). ● Set up and operate a central knowledge transfer office (Component 3.2). ● Funding schemes to support organisations performing R&D activities on dual technologies, including the creation of new or upgrade of existing laboratories and

Flagship	Existing Strategies and Targets	Reforms	Investments
		<p>support measures (Component 3.4).</p> <ul style="list-style-type: none"> ● Urban land consolidation (Component 3.4). ● Efficiency and Functionality of Justice (Component 3.4). ● Digital transformation of courts (Component 3.4). ● Improving the legal and institutional framework for fighting corruption (Component 3.4). ● Completing the legal framework for Crisis Management for Credit Institutions (Component 3.5). ● Framework and Action Plan for addressing NPLs (Component 3.5). ● Strategy for addressing inadequacies of the property transaction system (title deeds) (Component 3.5). ● Action plan for the development of a liability monitoring register (Component 3.5). 	<p>the development of classified laboratories (Component 3.2).</p> <ul style="list-style-type: none"> ● Integrated Information system for the Registrar of Companies and Official Receiver (Component 3.3). ● Creation of a Regulatory Sandbox to enable FinTech (Component 3.3). ● Scheme for the digital upgrade of enterprises (Component 3.3). ● Support extroversion and openness of Cyprus firms to international trade (Component 3.3). ● State funded equity fund (Component 3.3). ● Loan subsidisation for new business loans (Component 3.3). ● Rationalisation of the shift system through the implementation of a Roster Planning System (Component 3.4).

Flagship	Existing Strategies and Targets	Reforms	Investments
		<ul style="list-style-type: none"> ● Enhancement of the Insolvency Framework (Component 3.5). ● Strategy for Combating Financial Illiteracy (Component 3.5). ● Enhancing supervision of Insurance and Pension Funds (Component 3.5). ● Improving tax collection and effectiveness of the Tax Department (Component 3.5). ● Addressing Aggressive Tax Planning (Component 3.5). ● Empower the National Regulatory Authority (OCECPR) (Component 4.1). ● Empower the National Broadband Competence Office (DEC of the DMRIDP) (Component 4.1). ● Digital Services Factory (Component 4.2). ● Definition and Implementation of a new cloud policy with regard to 	<ul style="list-style-type: none"> ● Digitalisation of the law-making process (Component 3.4). ● Economic Policy Modelling Hub (Component 3.4). ● Enhancing e-system for issuing building permits (Component 3.4). ● Smart cities (Component 3.4). ● Regeneration and Revitalisation of Nicosia Inner City (Component 3.4). ● Aid Scheme for the private and public sector for certification with ISO 37000 (Anti Bribery) (Component 3.4). ● Enhancement of the Supervisory Function of CYSEC (Component 3.5). ● Modernisation of Customs and Electronic Payment System (Component 3.5). ● Digitalisation in various Central Government

Flagship	Existing Strategies and Targets	Reforms	Investments
		<p>Government IT systems and services (Component 4.2).</p> <ul style="list-style-type: none"> ● Police Procedures Digitalisation Digipol (Component 4.2). ● Setting up the Beneficial Ownership Registry in accordance with Directive 2015/849 (Component 4.2). ● A new teacher and school evaluation system (Component 5.1). ● Digital transformation of school units with the aim of enhancing digital skills and skills related to STEM education (Component 5.1). ● e-skills Action Plan – Implementation of specific actions (Component 5.1). ● Reform of the Social Insurance System and Restructuring of the Social Insurance Services (Component 5.2). ● Flexible Work Arrangements in the Form of Telework (Component 5.2). 	<p>Ministries / Services (Component 4.2).</p> <ul style="list-style-type: none"> ● Digitalisation of the Cyprus Ports Authority (Component 4.2). ● Improving the effectiveness of the Department of Labour and Public Employment Services and reinforcing support for young people (Component 5.2). ● Establishment of multifunctional centres and childcare centres (Component 5.2). ● Establishment of home structures for children, adolescents with conduct disorders, persons with disabilities and people in need of long-term care (LTC) (Component 5.2). ● Child Centres in Municipalities (Component 5.2).

Flagship	Existing Strategies and Targets	Reforms	Investments
<p>Scale-up -</p> <p>The increase in European industrial data cloud capacities and the development of the most powerful, cutting edge, and sustainable processors.</p> <p><i>Contribution by components: 2.2, 2.3, 3.1, 3.5 and 4.2.</i></p>	<p>National Digital Strategy:</p> <ol style="list-style-type: none"> 1. Making technology work for people; 2. Creating a fair and competitive digital economy; 3. Creating an open, democratic and sustainable digital; 4. Making Cyprus a resilient regional player with a seamless business environment. 	<ul style="list-style-type: none"> ● Establishment of an Intelligent Transportation System (ITS) using Digital Twin technologies. (Component 2.2) ● On-line, cloud-based platform for improving the trade and information symmetry in the fresh produce supply chain (Component 3.1). ● Definition and Implementation of a new cloud policy with regard to Government IT systems and services (Component 4.2). 	<ul style="list-style-type: none"> ● Smart Water and Sewerage Networks Management (Component 2.3). ● Integrated Monitoring and Control Management System for the Water Development Department's (WDD) infrastructure; (Component 2.3) ● Enhancing the existing isotopic databases of Cypriot local traditional food/ drinks by developing a Blockchain platform, to ensure their identity (Component 3.1). ● Scheme for modernisation and digitalisation of enterprises engaged in manufacturing and trading of agricultural products (Component 3.1). ● Enhancement of the Supervisory Function of CYSEC (Component 3.5).
<p>Reskill and upskill -</p> <p>The adaptation of</p>	<p>Entrepreneurship</p> <ul style="list-style-type: none"> ● Strategy "Enhancement of the entrepreneurial Activity". 	<ul style="list-style-type: none"> ● Move agricultural practices from the 20th century to the 21st century by investing in a 	<ul style="list-style-type: none"> ● Professionalise future labour force by investing in human capital (Component 3.1).

Flagship	Existing Strategies and Targets	Reforms	Investments
<p>education systems to support digital skills and educational and vocational training for all ages.</p> <p><i>Contribution by components: 3.1, 3.2, 3.4, 3.5, 4.1, 4.2, 5.1 and 5.2</i></p>	<ul style="list-style-type: none"> ● Target: Promotion of the entrepreneurial activity and improvement of the competitiveness of the Cypriot enterprises. <p>Ministry of Energy, Commerce and Industry – Trade Service</p> <p>Grant scheme for providing coaching support on consulting services to exporters in order to facilitate their promotion of products abroad. This is in accordance with the Strategic Target No. 4 of the MECI “Exports Promotion of Cyprus” undergone by the Trade Service.</p> <p>Digital</p> <p>National Digital Strategy:</p> <ol style="list-style-type: none"> 1. Making technology work for people; 2. Creating a fair and competitive digital economy; 3. Creating an open, democratic and sustainable digital; 4. Making Cyprus a resilient regional player with a seamless business environment. <p>Research & Innovation</p> <p>R&I Strategy Framework “Innovate Cyprus” (2019-2023).</p> <p>Ministry of Education and Culture</p>	<p>national centre for excellence in agri-tech (Component 3.1).</p> <ul style="list-style-type: none"> ● Establishment of a Coordinating Body between Central and Local Government (Component 3.1). ● Comprehensive national R&I Policy supported by data-driven policy tools to support the R&I Ecosystem and to enhance links between policy making and implementation (Component 3.2). ● Incentives to encourage and attract investments and human capital in R&I (Component 3.2). ● Introduce policies and incentives to facilitate and foster access to publicly funded research infrastructure and laboratories (Component 3.2). ● Enhance the administrative capacity and improve the functioning of public administration for better policy making and 	<ul style="list-style-type: none"> ● Upskill the existing farming community and professionalise future labour force by investing in human capital (Component 3.1) ● Set up and operate a central knowledge transfer office (Component 3.2). ● Innovation funding programs & funding schemes for the enhancement of growth & competitiveness of start-ups, innovative companies and SMEs (Component 3.2). ● Thematic research and innovation funding program on green transition (Component 3.2). ● Funding schemes to support organisations performing R&D activities on dual technologies, including the creation of new or upgrade of existing laboratories and the development of classified laboratories (Component 3.2).

Flagship	Existing Strategies and Targets	Reforms	Investments
	<p>Reforms and investments related to Education are based on the Government Program of the Presidency and aim to upgrade and modernise Education, strengthening society as well as strengthening our economy.</p> <p>Through the investment for the Construction of Two Model Special Education Schools the aim is to strengthen social inclusion, in particular by improving school environment for students with special educational needs and by ensuring that the adverse effects of the pandemic will be mitigated on one of the most vulnerable groups of the students of special educational needs.</p>	<p>implementation (Component 3.4).</p> <ul style="list-style-type: none"> ● Regulate flexible working arrangements in the public sector (Component 3.4). ● Introduce new framework for evaluation and selection process for filling public service vacancies and new regulations for the evaluation of employees' performance (Component 3.4). ● Strengthen administrative capacity and transparency through the professionalisation of public procurement and further digitalisation of its process (Component 3.4). ● New legal framework for Local Authorities and relevant support measures (Component 3.4). ● Efficiency and Functionality of Justice (Component 3.4). ● Digital transformation of courts (Component 3.4). 	<ul style="list-style-type: none"> ● Economic Policy Modelling Hub (Component 3.4). ● Training of judges (Component 3.4). ● Modernisation of Customs and Electronic Payment System (Component 3.5). ● Expansion of Very High Capacity Networks in underserved areas (Component 4.1). ● Enhance building cabling to be "Gigabit-ready" and promote connectivity take-up (Component 4.1). ● Digitalisation in various Central Government Ministries / Services (Component 4.2). ● Construction of 2 Model Technical Schools (Component 5.1). ● Skilling, Reskilling and Upskilling (Component 5.1). ● Improving the effectiveness of the Department of Labour and Public Employment Services and

Flagship	Existing Strategies and Targets	Reforms	Investments
		<ul style="list-style-type: none"> ● Improving the legal and institutional framework for fighting corruption (Component 3.4). ● Enhancement of the Insolvency Framework (Component 3.5). ● Strategy for Combating Financial Illiteracy (Component 3.5). ● Improving tax collection and effectiveness of the Tax Department (Component 3.5). ● Definition and Implementation of a new cloud policy with regard to Government IT systems and services (Component 4.2). ● Police Procedures Digitalisation Digipol (Component 4.2). ● Digital Services Factory (Component 4.2) ● Addressing skills mismatch between education and labour market (Secondary and Higher Education) (Component 5.1). 	<p>reinforcing support for young people (Component 5.2).</p> <ul style="list-style-type: none"> ● Establishment of multifunctional centres and childcare centres (Component 5.2). ● Establishment of home structures for children, adolescent with conduct disorders, persons with disabilities and people in need of long-term care (LTC) (Component 5.2). ● Child Centres in Municipalities (Component 5.2).

Flagship	Existing Strategies and Targets	Reforms	Investments
		<ul style="list-style-type: none"> ● A new teacher and school evaluation system (Component 5.1). ● Extension of free compulsory pre-primary education from the age of four (Component 5.1). ● Digital transformation of school units with the aim of enhancing digital skills and skills related to STEM education (Component 5.1). ● e-skills Action Plan – Implementation of specific actions (Component 5.1). ● Reform of the Social Insurance System and Restructuring of the Social Insurance Services (Component 5.2). ● Flexible Work Arrangements in the Form of Telework (Component 5.2). 	

ANNEX 3

Assessment of compliance with the “Do No Significant Harm” principle

ANNEX 3 - Assessment of the compliance of the Cyprus Recovery and Resilience Plan with the 'Do No Significant Harm' Principle

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Explanatory Note

The following tables present the assessment of every investment and reform of the Cyprus RRP with regard to the fulfilment of the DNSH principle across each one of six environmental objectives, in line with the guidance provided in Commission Notice C(2021) 1054 final.

More specifically, Table 1 describes cross-cutting requirements that are applicable for every investment and reform of the RRP.

Then the DNSH assessment of each measure is provided, by Policy Axis and Component. When necessary, the assessment refers to the cross-cutting requirements of Table 1.

The DNSH assessment was prepared by the Department of Environment of the Ministry of Agriculture, Rural Development and Environment together with assistance provided by an independent subject matter expert.

PART I: Cross-cutting requirements

TABLE 1

Cross-cutting requirements relevant for each and every measure of the Recovery and Resilience Plan of Cyprus	
1.	GPP: With the exception of measures for which the procurement process has already commenced or will have commenced before the formal approval of the RRP, for the procurement of products/services in public investments, the criteria established under the national Green Public Procurement Plan must be complied with.
2.	WEEE: For the purchase of electrical and electronic equipment and their end-of-life disposal and treatment, the obligations of the Waste (Waste Electrical and Electronic Equipment) Regulations (Acts 73/2015 and 337/2017) and of Directive 2012/19/EU must be complied with.
3.	Construction works: <ul style="list-style-type: none">• In all measures involving construction of new buildings, these must be Nearly Zero-Energy Buildings in line with the relevant EU legislation (Energy Performance of Buildings Directives 2010/31/EU and (EU) 2018/844)• In all measures that involve building renovations, compliance with the Energy Performance of Buildings Directives 2010/31/EU and Directive (EU) 2018/844 is required.• For both new buildings and renovations, it is ensured that they are not located in areas vulnerable to floods, and the design of the buildings ensures a low impact of heat waves on interior thermal comfort.
4.	Energy Efficient Equipment: Any electronic or other equipment purchased for the implementation of every measure must comply with the energy labelling requirements in accordance with Regulation 2017/1369/EU and with the Eco-design Directive 2009/125/EC. Vehicles or vessels to be procured and used must comply with the best available environmental performance standards, e.g. <50 g CO ₂ emissions / km in the case of light duty road vehicles.
5.	ICT equipment: The ICT equipment used in all measures should not contain the restricted substances listed in Annex II to Directive 2011/65/EU, except where the concentration values by weight in homogeneous materials do not exceed those listed in that Annex.
6.	Water resources: In all measures that involve installation of water consuming appliances or equipment, the specified water use for the water appliances is attested by product datasheets, by a building certification or by an existing EU product label.
7.	Waste hierarchy: All actions involved in the measures shall be in line with the waste hierarchy included in the Waste Framework Directive with preventing waste to be the preferred option.
8.	Waste management: measures to have separation of waste streams at source, with priority of reuse and recycling. Any investment that creates waste must comply with the legislative framework on waste (Regulation (EU) 2018/848 and Directives (EU) 2018/849, 2018/850, 2018/851, 2018/852)

9. Where relevant, compliance with Strategic Environmental Assessment / Environmental Impact Assessments / Appropriate Assessments is required.
10. All measures that include financial support schemes will be required to undergo a sustainability proofing procedure. The schemes, when published, will include all terms and conditions that are included in the DNSH assessment so as all eligible parties will be informed in advance of the requirements. In addition, in the publication of the scheme, a specific document will be prepared (in each case) that will include all EU and national environmental legislation that needs to be complied so as this information will be available to applicants. Before any payment, the applicant will need to complete this specific document regarding the legal compliance with the environmental acquis and also provide documents proving the compliance in each case. When this is verified, a sustainability proofing document will be produced that will refer to the legal compliance of the applicant in order to receive the payment. This will also cover the transactions that do not need sustainability proofing.
11. Biodiversity and ecosystem protection: All investments and reforms are not located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas) and will not affect nor have a significant effect to the areas and species protected by all relevant national legislation, including:
- Flora and fauna requiring strict protection as listed in Annex III of the Nature and Wildlife Protection and Management Law ([N. 153\(I\)/2003](#)) and the Protection and Management of Wild Birds and Game Law ([N. 152\(I\)/2003](#))
 - State Forests as foreseen in Forest Law ([N. 25\(I\)/2012](#))
 - Protected Areas foreseen in the Town and Country Planning Law ([N. 90/1972](#))
- In addition, the high natural value farmlands will be respected and taken into consideration in the location of the investments.

PART II: Assessment of All Measures

Policy Axis 1: Public Health and Civil Protection - Lessons Learned from the Pandemic

Component 1.1: Resilient and Effective Health System, Improved Civil Protection

Reform 1: National Centre for Clinical Documentation

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle. The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation. Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 2: Design an electronic platform for the surveillance of Nosocomial Antibiotic Consumption and Healthcare – Associated infections

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 3: Gradually shifting the focus from treatment and hospitalization to prevention and management of conditions, as the system moves towards value-based reimbursement models

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 1: New facilities Blood Establishment and procurement of the latest technology attendant equipment

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. The measure will not lead to substantial increases in GHG emissions as it involves construction of buildings and other infrastructure and purchase of digital and other equipment. Cross-cutting requirements can ensure that buildings will be energy efficient and also that energy efficient equipment will be used in the life cycle of this investment, with no significant impact on GHG emissions.
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Further to cross-cutting requirements, the measure involves construction/extension/renovation of buildings and other infrastructure and purchase of digital and other equipment, and hence will not increase the vulnerability of population, ecosystems or infrastructure to climate change.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as the measure will not involve any substantial water-consuming works and will not affect water bodies. Most of the activities take place in already developed areas (urban centres) where waterbodies are already managed accordingly. Further to cross-cutting requirements, all necessary measures to protect any waterbodies during construction works will be applied. There are no negative impacts on marine resources.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Cross-cutting requirements can ensure sufficient protection of biodiversity and ecosystems.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>The measure requires the economic operators carrying out construction works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>The measure includes technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability.</p> <p>Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> - The operators carrying out the construction works are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. - The operators carrying out the construction works are required to ensure that components and materials that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. - Measures will be taken to reduce noise, dust and pollutant emissions during construction works. - The use of energy efficient equipment as mandated through cross-cutting requirements will make sure that there will be no significant emissions of pollutants during the life cycle of the investment.

Investment 2: Cyprus Innovative Public Health ICT System (CIPHIS)

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation	X		
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. This measure involves mainly ICT equipment. Cross-cutting requirements of Table 1 are sufficient to ensure compliance with DNSH about this environmental objective.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. This measure involves mainly ICT equipment. Cross-cutting requirements of Table 1 are sufficient to ensure compliance with DNSH about this environmental objective.
The circular economy, including waste prevention and recycling		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. Cross-cutting requirements of Table 1 about ICT equipment etc. are sufficient to ensure compliance with DNSH about this environmental objective.
Pollution prevention and control to air, water or land		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. Cross-cutting requirements of Table 1 are sufficient to ensure compliance with DNSH about this environmental objective.
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. This measure involves mainly ICT equipment. Cross-cutting requirements can ensure sufficient protection of biodiversity and ecosystems.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>Climate change mitigation:</i> Is the measure expected to lead to significant GHG emissions?</p>	<p align="center">X</p>	<p>The measure is not expected to lead to significant GHG emissions as it involves purchase, installation and operation of digital equipment, for which all cross-cutting requirements listed in Table 1 apply.</p> <p>As the measure also includes the installation and operation of data centres, in addition to cross-cutting requirements, best practices will be implemented, such as the "expected practices" included in the most recent version of the European Code of Conduct on Data Centre Energy Efficiency, or in CEN-CENELEC document CLC TR50600-99-1 "Data centre facilities and infrastructures - Part 99-1: Recommended practices for energy management".</p> <p>For this purpose, specifications on energy efficiency will be requested for any data centre equipment to be procured in this measure.</p>

Investment 3: Purchase/replacement of medical equipment in public and private hospitals

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. The measure will not lead to substantial increases in GHG emissions as it involves construction of buildings and other infrastructure and purchase of digital and other equipment. Cross-cutting requirements can ensure that buildings will be energy efficient and also that energy efficient equipment will be used in the life cycle of this investment, with no significant impact on GHG emissions.
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Further to cross-cutting requirements, the measure involves construction/extension/renovation of buildings and other infrastructure and purchase of digital and other equipment, and hence will not increase the vulnerability of population, ecosystems or infrastructure to climate change.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as the measure will not involve any substantial water-consuming works and will not affect water bodies. Most of the activities take place in already developed areas (urban centres) where waterbodies are already managed accordingly. Further to cross-cutting requirements, all necessary measures to protect any waterbodies during construction works will be applied. There are no negative impacts on marine resources.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Cross-cutting requirements can ensure sufficient protection of biodiversity and ecosystems.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>The measure requires the economic operators carrying out construction works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>The measure includes technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability.</p> <p>Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> - The operators carrying out the construction works are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. - The operators carrying out the construction works are required to ensure that components and materials that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. - Measures will be taken to reduce noise, dust and pollutant emissions during construction works. - The use of energy efficient equipment as mandated through cross-cutting requirements will make sure that there will be no significant emissions of pollutants during the life cycle of the investment.

Investment 4: Accreditation of public and private hospitals

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle.</p> <p>The measure includes no infrastructure investments or construction work, and no SEA/EIA is needed for their implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 5: Enhancement, modernization and upgrade of Cyprus State Hospitals

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. The measure will not lead to substantial increases in GHG emissions as it involves construction of buildings and other infrastructure and purchase of digital and other equipment. Cross-cutting requirements can ensure that buildings will be energy efficient and also that energy efficient equipment will be used in the life cycle of this investment, with no significant impact on GHG emissions.
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Further to cross-cutting requirements, the measure involves construction/extension/renovation of buildings and other infrastructure and purchase of digital and other equipment, and hence will not increase the vulnerability of population, ecosystems or infrastructure to climate change.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as the measure will not involve any substantial water-consuming works and will not affect water bodies. Most of the activities take place in already developed areas (urban centres) where waterbodies are already managed accordingly. Further to cross-cutting requirements, all necessary measures to protect any waterbodies during construction works will be applied. There are no negative impacts on marine resources.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Cross-cutting requirements can ensure sufficient protection of biodiversity and ecosystems.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>The measure requires the economic operators carrying out construction works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>The measure includes technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability.</p> <p>Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> - The operators carrying out the construction works are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. - The operators carrying out the construction works are required to ensure that components and materials that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. - Measures will be taken to reduce noise, dust and pollutant emissions during construction works. - The use of energy efficient equipment as mandated through cross-cutting requirements will make sure that there will be no significant emissions of pollutants during the life cycle of the investment.

Investment 6: Deployment of generic cross border ehealth services in Cyprus

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 7: Public warning system for supporting emergency operations through SMS with additional options (e.g. TV, radio, social media, apps, etc.)

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle. The measure includes no infrastructure investments or construction work, and no SEA/EIA is needed for their implementation. Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Policy Axis 2: Accelerated Transition to a Green Economy

Component 2.1: Climate Neutrality, Energy Efficiency and Renewable Energy Penetration

Reform 1: Green Taxation

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>In any case, cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p> <p>The green tax reform will yield economy-wide environmental benefits as it will be a key enabler for many investments to be supported by the entire RRP. It will encourage the uptake of energy-saving equipment and appliances, energy efficient buildings, zero-carbon energy technologies, water-saving equipment and waste reduction and reuse.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 2: Independence of Cyprus Transmission System Operator (TSOC) from the incumbent Electricity Authority of Cyprus

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.
The circular economy, including waste prevention and recycling		X	In any case, cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	The reform will contribute to liberalisation of the electricity market of Cyprus, which in turn will promote the shift to zero-carbon electricity because it will help decentralised power generation to be economically favourable for many electricity consumers.

Reform 3: Digital One-Stop Shops to streamline RES projects permitting and to facilitate Energy Renovation in Buildings

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>In any case, cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p> <p>The reform will promote the penetration of renewable energy sources and energy efficiency investments because it will remove investment barriers for energy consumers (households and businesses).</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 4: Energy Storage Regulatory Framework

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.
The circular economy, including waste prevention and recycling		X	In any case, cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	The reform will promote the shift to zero-carbon electricity because it will allow the greater penetration of intermittent renewable energy sources (mainly solar photovoltaics).

Investment 1: Promoting energy efficiency investments in SMEs, municipalities and the wider public sector

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measures are compliant with the DNSH principle in this objective as they are eligible for intervention fields 024ter, 025bis and/or 026bis in the Annex to the RRF Regulation with a climate change coefficient of 100%, since the objective of the measures is to achieve, on average, at least a medium-depth level renovation as defined in Commission Recommendation on Works (EU) 2019/786. In combination with the cross-cutting requirements of Table 1 of this assessment, the objective of the measures and the nature of the intervention field directly support the climate change mitigation objective. In any cases where biomass-burning units may be installed, most of the biomass is expected to be of local origin and consist of processed wood residues; provisions of the REDII Directive (2018/2001/EU) and national legislation ensure that no unsustainable forest biomass will be used for this purpose, therefore high-carbon-stock-land will be preserved.
Climate change adaptation	X		
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as no water fittings or water-using appliances are being installed, and no impact on water bodies is foreseen. Moreover, there will be no impact on marine resources as the measures will be implemented inland. In combination with the cross-cutting requirements of Table 1 of this assessment, all measures for the protection of waterbodies near the construction sites will be enforced as common practice.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
The protection and restoration of biodiversity and ecosystems		X	<p>The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle.</p> <p>Construction/renovation work and equipment replacement foreseen in this measure, as a rule, does not concern buildings located in or near biodiversity-sensitive areas. The lack of significant harm is ensured through the cross-cutting requirements listed in Table 1 of this assessment.</p> <p>In any cases where biomass-burning units may be installed, most of the biomass is expected to be of local origin and consist of processed wood residues; provisions of the REDII Directive (2018/2001/EU) and national legislation ensure that no unsustainable forest biomass will be used for this purpose, therefore biodiversity resources and high-carbon-stock-land will be preserved.</p>

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<i>Climate change adaptation</i> : Is the measure expected to lead to an increased adverse impact of the current climate and the expected future climate, on the measure itself or on people, nature or assets?	X	The physical climate risks that could be material to this measure were assessed taking into account the current and future climate of Cyprus, which demonstrated that buildings in the targeted climate zones will be increasingly exposed to heatwaves. Besides what is foreseen in the cross-cutting requirements of Table 1, the measure requires the economic operators to ensure that the technical building systems in the renovated buildings are optimised to provide thermal comfort to the occupants even in those extreme temperatures. There is thus no evidence of significant negative direct and primary indirect effects of the measures across their life cycle on this environmental objective.
<i>The circular economy, including waste prevention and recycling</i> : Is the measure expected to: (i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or (ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or (iii) cause significant and long-term harm to the environment in respect to the circular economy?	X	As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures. The measure requires the economic operators carrying out the works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol. The measure includes technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability. In particular, operators will limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol. Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling. Waste hierarchy to be implemented throughout all actions involved in the measures in line with the waste hierarchy included in the Waste Framework Directive with preventing waste to be the preferred option
<i>Pollution prevention and control to air, water or land</i> : Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?	X	As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures. The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because: – The replacement of old heating systems in particular will lead to significant reductions of direct emissions to air and a subsequent improvement in public health, in areas where the EU air quality standards set by Directive 2008/50/EU are exceeded or likely to be exceeded.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> <li>– Biomass-based boilers, if installed, will be highly energy efficient and will replace more polluting equipment. Biomass to be used will comply with the provisions of Renewable Energy Directive 2018/2001/EU (REDII) and related implementing and delegated acts, and the installations will comply with the relevant national legislation on air pollutant emissions. <li>– Biomass-based fireplaces, if installed, will be highly energy efficient and will replace more polluting equipment, and their deployment will be limited in any case, so that no significant emissions from biomass combustion are foreseen. Biomass will comply with the provisions of Renewable Energy Directive 2018/2001/EU (REDII) and related implementing and delegated acts, and the installations will comply with the relevant national legislation on air pollutant emissions. <li>– The operators carrying out the works are required to ensure that building components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. <li>– The operators carrying out the works are required to ensure that building components and materials used that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. <li>– Measures will be taken to reduce noise, dust and pollutant emissions during construction/renovation works.

Investment 2: Promoting renewables and individual energy efficiency measures and tackling energy poverty in households with disabled people

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measures are compliant with the DNSH principle in this objective as they are eligible for intervention fields 024ter, 025bis and/or 026bis in the Annex to the RRF Regulation with a climate change coefficient of 100%, since the objective of the measures is to achieve, on average, at least a medium-depth level renovation as defined in Commission Recommendation on Works (EU) 2019/786. In combination with the cross-cutting requirements of Table 1 of this assessment, the objective of the measures and the nature of the intervention field directly support the climate change mitigation objective. In any cases where biomass-burning units may be installed, most of the biomass is expected to be of local origin and consist of processed wood residues; provisions of the REDII Directive (2018/2001/EU) and national legislation ensure that no unsustainable forest biomass will be used for this purpose, therefore high-carbon-stock-land will be preserved.
Climate change adaptation	X		
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as no water fittings or water-using appliances are being installed, and no impact on water bodies is foreseen. Moreover, there will be no impact on marine resources as the measures will be implemented inland. In combination with the cross-cutting requirements of Table 1 of this assessment, all measures for the protection of waterbodies near the construction sites will be enforced as common practice.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
The protection and restoration of biodiversity and ecosystems		X	<p>The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle.</p> <p>Construction/renovation work and equipment replacement foreseen in this measure, as a rule, does not concern buildings located in or near biodiversity-sensitive areas. The lack of significant harm is ensured through the cross-cutting requirements listed in Table 1 of this assessment.</p> <p>In any cases where biomass-burning units may be installed, most of the biomass is expected to be of local origin and consist of processed wood residues; provisions of the REDII Directive (2018/2001/EU) and national legislation ensure that no unsustainable forest biomass will be used for this purpose, therefore biodiversity resources and high-carbon-stock-land will be preserved.</p>

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<i>Climate change adaptation</i> : Is the measure expected to lead to an increased adverse impact of the current climate and the expected future climate, on the measure itself or on people, nature or assets?	X	The physical climate risks that could be material to this measure were assessed taking into account the current and future climate of Cyprus, which demonstrated that buildings in the targeted climate zones will be increasingly exposed to heatwaves. Besides what is foreseen in the cross-cutting requirements of Table 1, the measure requires the economic operators to ensure that the technical building systems in the renovated buildings are optimised to provide thermal comfort to the occupants even in those extreme temperatures. There is thus no evidence of significant negative direct and primary indirect effects of the measures across their life-cycle on this environmental objective.
<i>The circular economy, including waste prevention and recycling</i> : Is the measure expected to: (i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or (ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or (iii) cause significant and long-term harm to the environment in respect to the circular economy?	X	As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures. The measure requires the economic operators carrying out the works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol. The measure includes technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability. In particular, operators will limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol. Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling. Waste hierarchy to be implemented throughout all actions involved in the measures in line with the waste hierarchy included in the Waste Framework Directive with preventing waste to be the preferred option
<i>Pollution prevention and control to air, water or land</i> : Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?	X	As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures. The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because: – The replacement of old heating systems in particular will lead to significant reductions of direct emissions to air and a subsequent improvement in public health, in areas where the EU air quality standards set by Directive 2008/50/EU are exceeded or likely to be exceeded.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> <li>– Biomass-based boilers, if installed, will be highly energy efficient and will replace more polluting equipment. Biomass to be used will comply with the provisions of Renewable Energy Directive 2018/2001/EU (REDII) and related implementing and delegated acts, and the installations will comply with the relevant national legislation on air pollutant emissions. <li>– Biomass-based fireplaces, if installed, will be highly energy efficient and will replace more polluting equipment, and their deployment will be limited in any case, so that no significant emissions from biomass combustion are foreseen. Biomass will comply with the provisions of Renewable Energy Directive 2018/2001/EU (REDII) and related implementing and delegated acts, and the installations will comply with the relevant national legislation on air pollutant emissions. <li>– The operators carrying out the works are required to ensure that building components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. <li>– The operators carrying out the works are required to ensure that building components and materials used that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. <li>– Measures will be taken to reduce noise, dust and pollutant emissions during construction/renovation works.

Investment 3: Encouraging the use of renewables and energy savings by local/wider public authorities as well as NGOs and facilitate the transition of local communities towards climate mitigation & adaptation

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measures are compliant with the DNSH principle in this objective as they are eligible for intervention fields 024ter, 025bis and/or 026bis in the Annex to the RRF Regulation with a climate change coefficient of 100%, since the objective of the measures is to achieve, on average, at least a medium-depth level renovation as defined in Commission Recommendation on Works (EU) 2019/786. In combination with the cross-cutting requirements of Table 1 of this assessment, the objective of the measures and the nature of the intervention field directly support the climate change mitigation objective. In any cases where biomass-burning units may be installed, most of the biomass is expected to be of local origin and consist of processed wood residues; provisions of the REDII Directive (2018/2001/EU) and national legislation ensure that no unsustainable forest biomass will be used for this purpose, therefore high-carbon-stock-land will be preserved.
Climate change adaptation	X		
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as no water fittings or water-using appliances are being installed, and no impact on water bodies is foreseen. Moreover, there will be no impact on marine resources as the measures will be implemented inland. In combination with the cross-cutting requirements of Table 1 of this assessment, all measures for the protection of waterbodies near the construction sites will be enforced as common practice.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
The protection and restoration of biodiversity and ecosystems		X	<p>The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle.</p> <p>Construction/renovation work and equipment replacement foreseen in this measure, as a rule, does not concern buildings located in or near biodiversity-sensitive areas. The lack of significant harm is ensured through the cross-cutting requirements listed in Table 1 of this assessment.</p> <p>In any cases where biomass-burning units may be installed, most of the biomass is expected to be of local origin and consist of processed wood residues; provisions of the REDII Directive (2018/2001/EU) and national legislation ensure that no unsustainable forest biomass will be used for this purpose, therefore biodiversity resources and high-carbon-stock-land will be preserved.</p>

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<i>Climate change adaptation</i> : Is the measure expected to lead to an increased adverse impact of the current climate and the expected future climate, on the measure itself or on people, nature or assets?	X	The physical climate risks that could be material to this measure were assessed taking into account the current and future climate of Cyprus, which demonstrated that buildings in the targeted climate zones will be increasingly exposed to heatwaves. Besides what is foreseen in the cross-cutting requirements of Table 1, the measure requires the economic operators to ensure that the technical building systems in the renovated buildings are optimised to provide thermal comfort to the occupants even in those extreme temperatures. There is thus no evidence of significant negative direct and primary indirect effects of the measures across their life-cycle on this environmental objective.
<i>The circular economy, including waste prevention and recycling</i> : Is the measure expected to: (i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or (ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or (iii) cause significant and long-term harm to the environment in respect to the circular economy?	X	As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures. The measure requires the economic operators carrying out the works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol. The measure includes technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability. In particular, operators will limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol. Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling. Waste hierarchy to be implemented throughout all actions involved in the measures in line with the waste hierarchy included in the Waste Framework Directive with preventing waste to be the preferred option
<i>Pollution prevention and control to air, water or land</i> : Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?	X	As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures. The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because: – The replacement of old heating systems in particular will lead to significant reductions of direct emissions to air and a subsequent improvement in public health, in areas where the EU air quality standards set by Directive 2008/50/EU are exceeded or likely to be exceeded.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> <li>– Biomass-based boilers, if installed, will be highly energy efficient and will replace more polluting equipment. Biomass to be used will comply with the provisions of Renewable Energy Directive 2018/2001/EU (REDII) and related implementing and delegated acts, and the installations will comply with the relevant national legislation on air pollutant emissions. <li>– Biomass-based fireplaces, if installed, will be highly energy efficient and will replace more polluting equipment, and their deployment will be limited in any case, so that no significant emissions from biomass combustion are foreseen. Biomass will comply with the provisions of Renewable Energy Directive 2018/2001/EU (REDII) and related implementing and delegated acts, and the installations will comply with the relevant national legislation on air pollutant emissions. <li>– The operators carrying out the works are required to ensure that building components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. <li>– The operators carrying out the works are required to ensure that building components and materials used that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. <li>– Measures will be taken to reduce noise, dust and pollutant emissions during construction/renovation works.

Investment 4: Reduction of CO2 emissions in industries, businesses and organizations

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation	X		
Climate change adaptation	X		
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified. No activities affecting water bodies or marine resources are foreseen. Cross-cutting requirements listed in Table 1 of this assessment can ensure no significant harm for this environmental objective.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. The investments of this scheme do not concern buildings, offices or industrial installations located in or near biodiversity-sensitive areas. If there are going to be disputed cases, the cross-cutting requirements listed in Table 1 are sufficient to fulfil this objective. In any cases where biomass-burning units may be installed, most of the biomass is expected to be of local origin and consist of processed wood residues; provisions of the REDII Directive (2018/2001/EU) and national legislation ensure that no unsustainable forest biomass will be used for this purpose, therefore biodiversity resources and high-carbon-stock-land will be preserved.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<i>Climate change mitigation:</i> Is the measure expected to lead to significant GHG emissions?	X	<p>Depending on the investments to be supported for each business or organization, the measure is eligible for intervention fields 022, 023, 024, 025bis and/or 026 in the Annex to the RRF Regulation with a climate change coefficient of 40% or 100%.</p> <p>The measure is not expected to lead to significant GHG emissions because:</p> <ul style="list-style-type: none"> – The economic activities addressed are not dedicated to extraction or manufacture of fossil fuels. To the extent that the activities will address storage or transport of fossil fuels, they will improve the energy efficiency or waste management of these activities, and hence will certainly not increase the associated GHG emissions. – The investments have the potential to reduce energy use and increase energy efficiency, leading to a substantial improvement in energy performance of the businesses concerned, and significantly reduce GHG emissions. As such, they will contribute to the national target of energy efficiency increase per year, set out according to the Energy Efficiency Directive (2012/27/EU), the decarbonisation and energy efficiency related objectives of the National Energy and Climate Plan, and the Nationally Determined Contributions to the Paris Climate Agreement. – The investment will, amongst others, include replacement of old equipment with modern highly efficient equipment for production processes, space heating or cooling and waste management. – Energy performance of new/renovated buildings and new motor vehicles is addressed in the cross-cutting requirements of Table 1 of this assessment. – In any cases where biomass-burning units may be installed, most of the biomass is expected to be of local origin and consist of processed wood residues; provisions of the REDII Directive (2018/2001/EU) and national legislation ensure that no unsustainable forest biomass will be used for this purpose, therefore high-carbon-stock-land will be preserved. – In order to not hamper the deployment of further low-carbon alternatives if available, climate change mitigation will be reinforced by reform 1 of component 2.1 that will lead, among others, to carbon taxation of fossil fuels, which will accelerate the shift to low- or zero-carbon energy investments in this measure.
<i>Climate change adaptation:</i> Is the measure expected to lead to an increased adverse impact of the current climate and the	X	<p>The physical climate risks that could be material to this measure were assessed taking into account the current and future climate of Cyprus, which demonstrated that buildings and businesses in the targeted climate zones will be increasingly exposed to heatwaves. The measures require the economic operators to ensure that the technical systems in the renovated office and industrial buildings are optimised to provide thermal comfort to the occupants even in those</p>

Questions	No	Substantive justification
expected future climate, on the measure itself or on people, nature or assets?		extreme temperatures. There is thus no evidence of significant negative direct and primary indirect effects of the measures across their life cycle on this environmental objective.
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measures require the economic operators carrying out the investments to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>The measures include technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability. In particular, operators will limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol. Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p> <p>Waste hierarchy to be implemented throughout all actions involved in the measures in line with the waste hierarchy included in the Waste Framework Directive with preventing waste to be the preferred option</p> <p>To the extent that the measures to be supported can include purchase of new zero-emission company vehicles, measures are in place to manage waste both in the use phase (maintenance) and the end-of-life of the vehicle fleet, including through reuse and recycling of batteries and electronics (in particular critical raw materials therein), in accordance with the waste hierarchy. Production impacts are factored in, and the scheme will not encourage the premature scrapping of serviceable vehicles. In particular, the scheme requires that any scrapped vehicle is processed by an Authorised Treatment Facility (ATF) according to the end-of-life vehicles directive (2000/53/EC) as proven by a certificate required to take part in the scheme.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is expected to lead to a decrease in the emissions of pollutants into air and no increase in emissions into water or land because:</p>

Questions	No	Substantive justification
		<ul style="list-style-type: none"> <li>– The replacement of old equipment (e.g. industrial motors or boilers) will lead to significant reductions of direct emissions to air and a subsequent improvement in public health, in areas where the EU air quality standards set by Directive 2008/50/EU are exceeded or likely to be exceeded. <li>– Biomass-based boilers, if installed, will be highly energy efficient and will replace more polluting equipment. Biomass to be used will comply with the provisions of Renewable Energy Directive 2018/2001/EU (REDII) and related implementing and delegated acts, and the installations will comply with the relevant national legislation on air pollutant emissions. <li>– The operators carrying out the investments are required to ensure that building components and materials used do not contain substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. <li>– The operators carrying out the investments are required to ensure that building components and materials used that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. <li>– Measures will be taken to reduce noise, dust and pollutant emissions during works.

Investment 5: Energy efficiency upgrading of public buildings

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measures are compliant with the DNSH principle in this objective as they are eligible for intervention fields 024ter, 025bis and/or 026bis in the Annex to the RRF Regulation with a climate change coefficient of 100%, since the objective of the measures is to achieve, on average, at least a medium-depth level renovation as defined in Commission Recommendation on Works (EU) 2019/786. In combination with the cross-cutting requirements of Table 1 of this assessment, the objective of the measures and the nature of the intervention field directly support the climate change mitigation objective.
Climate change adaptation	X		
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as no water fittings or water-using appliances are being installed, and no impact on water bodies is foreseen. Moreover, there will be no impact on marine resources as the measures will be implemented inland. In combination with the cross-cutting requirements of Table 1 of this assessment, all measures for the protection of waterbodies near the construction sites will be enforced as common practice.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. Construction/renovation work and equipment replacement foreseen in this measure, as a rule, does not concern buildings located in or near biodiversity-sensitive areas. The lack of significant harm is ensured through the cross-cutting requirements listed in Table 1 of this assessment.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<i>Climate change adaptation</i> : Is the measure expected to lead to an increased adverse impact of the current climate and the expected future climate, on the measure itself or on people, nature or assets?	X	The physical climate risks that could be material to this measure were assessed taking into account the current and future climate of Cyprus, which demonstrated that buildings in the targeted climate zones will be increasingly exposed to heatwaves. Besides what is foreseen in the cross-cutting requirements of Table 1, the measure requires the economic operators to ensure that the technical building systems in the renovated buildings are optimised to provide thermal comfort to the occupants even in those extreme temperatures. There is thus no evidence of significant negative direct and primary indirect effects of the measures across their life-cycle on this environmental objective.
<i>The circular economy, including waste prevention and recycling</i> : Is the measure expected to: (i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or (ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or (iii) cause significant and long-term harm to the environment in respect to the circular economy?	X	As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures. The measure requires the economic operators carrying out the works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol. The measure includes technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability. In particular, operators will limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol. Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling. Waste hierarchy to be implemented throughout all actions involved in the measures in line with the waste hierarchy included in the Waste Framework Directive with preventing waste to be the preferred option
<i>Pollution prevention and control to air, water or land</i> : Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?	X	As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures. The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because: – The replacement of old heating systems in particular will lead to significant reductions of direct emissions to air and a subsequent improvement in public health, in areas where the EU air quality standards set by Directive 2008/50/EU are exceeded or likely to be exceeded.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> <li>– The operators carrying out the works are required to ensure that building components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. <li>– The operators carrying out the works are required to ensure that building components and materials used that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. <li>– Measures will be taken to reduce noise, dust and pollutant emissions during construction/renovation works.

Investment 6: Upgrading renewable energy and smart grids testing infrastructure at the University of Cyprus

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measures are compliant with the DNSH principle in this objective as they are eligible for intervention fields 024ter, 025bis and/or 026bis in the Annex to the RRF Regulation with a climate change coefficient of 100%, since the objective of the measures is to achieve, on average, at least a medium-depth level renovation as defined in Commission Recommendation on Works (EU) 2019/786. In combination with the cross-cutting requirements of Table 1 of this assessment, the objective of the measures and the nature of the intervention field directly support the climate change mitigation objective.
Climate change adaptation	X		
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as no water fittings or water-using appliances are being installed, and no impact on water bodies is foreseen. Moreover, there will be no impact on marine resources as the measures will be implemented inland. In combination with the cross-cutting requirements of Table 1 of this assessment, all measures for the protection of waterbodies near the construction sites will be enforced as common practice.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. Construction/renovation work and equipment replacement foreseen in this measure, as a rule, does not concern buildings located in or near biodiversity-sensitive areas. The lack of significant harm is ensured through the cross-cutting requirements listed in Table 1 of this assessment.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<i>Climate change adaptation</i> : Is the measure expected to lead to an increased adverse impact of the current climate and the expected future climate, on the measure itself or on people, nature or assets?	X	The physical climate risks that could be material to this measure were assessed taking into account the current and future climate of Cyprus, which demonstrated that buildings in the targeted climate zones will be increasingly exposed to heatwaves. Besides what is foreseen in the cross-cutting requirements of Table 1, the measure requires the economic operators to ensure that the technical building systems in the renovated buildings are optimised to provide thermal comfort to the occupants even in those extreme temperatures. There is thus no evidence of significant negative direct and primary indirect effects of the measures across their life-cycle on this environmental objective.
<i>The circular economy, including waste prevention and recycling</i> : Is the measure expected to: (i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or (ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or (iii) cause significant and long-term harm to the environment in respect to the circular economy?	X	As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures. The measure requires the economic operators carrying out the works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol. The measure includes technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability. In particular, operators will limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol. Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling. Waste hierarchy to be implemented throughout all actions involved in the measures in line with the waste hierarchy included in the Waste Framework Directive with preventing waste to be the preferred option
<i>Pollution prevention and control to air, water or land</i> : Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?	X	As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures. The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because: – The replacement of old heating systems in particular will lead to significant reductions of direct emissions to air and a subsequent improvement in public health, in areas where the EU air quality standards set by Directive 2008/50/EU are exceeded or likely to be exceeded.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> <li>– The operators carrying out the works are required to ensure that building components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. <li>– The operators carrying out the works are required to ensure that building components and materials used that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. <li>– Measures will be taken to reduce noise, dust and pollutant emissions during construction/renovation works.

Investment 7: Mass installation and operation by the Distribution System Operator (DSO) of Smart Metering Infrastructure (Advanced Metering Infrastructure)

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure is eligible for intervention field 033 in the Annex to the RRF Regulation with a climate change coefficient of 100%.</p> <p>The replacement of electricity meters with new, smart metering infrastructure has the potential to reduce energy use, increase energy efficiency and reduce GHG emissions as it will allow the penetration of decentralised renewable power generation and the introduction of flexible electricity tariffs that will enable demand-side measures which can yield energy savings and flatten peak electricity demand. This can significantly reduce GHG emissions. As such, the measure will contribute to the decarbonisation and energy efficiency related objectives of the National Energy and Climate Plan, and the Nationally Determined Contributions to the Paris Climate Agreement.</p>
Climate change adaptation	X		<p>The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. The installation of smart electricity meters will not put the occupants of buildings addressed in increased thermal stress due to potentially increased future heat waves.</p>
The sustainable use and protection of water and marine resources		X	<p>The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as no water fittings or water-using appliances are being installed, and no impact on water bodies is foreseen. Moreover, there will be no impact on marine resources as the measures will be implemented inland. In combination with the cross-cutting requirements of Table 1 of this assessment, all measures for the protection of waterbodies near the construction sites will be enforced as common practice.</p>
The circular economy, including waste prevention and recycling	X		

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. Smart electricity meters will be installed in existing buildings so that no impact on biodiversity-sensitive areas is foreseen.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measures require the economic operators carrying out the installation of smart meters to ensure that – if some construction or demolition work is necessary – at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>Waste hierarchy to be implemented throughout all actions involved in the measure, in line with the waste hierarchy included in the Waste Framework Directive, with preventing waste to be the preferred option.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> – The installation of smart electricity meters will lead to reduction of electricity consumption and hence will lead to significant reductions of direct emissions to air and a subsequent improvement in public health, in areas where the EU air quality standards set by Directive 2008/50/EU are exceeded or likely to be exceeded. – The operators carrying out the works are required to ensure that building components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the works are required to ensure that building components and materials used that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component,

Questions	No	Substantive justification
		<p>upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method.</p> <ul style="list-style-type: none"> – Measures will be taken to reduce noise, dust and pollutant emissions during construction/renovation works.

Investment 8: Monitoring and reduction of GHG emissions in agriculture

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle.</p> <p>The measure includes no infrastructure investments or construction work, and no SEA/EIA is needed for their implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 9: Forests fire protection

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. The measures will not lead to substantial increases in GHG emissions as they involve construction of fire stations and improvement of natural and physical infrastructure for fire protection. Cross-cutting requirement listed in Table 1 of this assessment can ensure compliance with the DNSH principle for this objective.
Climate change adaptation		X	The measure is eligible for intervention fields 036 in the Annex to the RRF Regulation with a climate change coefficient of 100%. It will contribute to enhanced infrastructure for fire protection thereby increasing the resilience of areas of Cyprus to increased risks of forest fires due to higher temperatures and extreme weather events due to climate change. Moreover, through forest protection the measures will indirectly contribute to flood protection, thereby increasing the resilience of areas of Cyprus to increased risks of floods associated with climate change.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as the measures will involve construction of new fire stations and improvement of natural and physical infrastructure for fire protection. Marine resources will not be affected.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	Justification if 'No' has been selected
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. The construction works will not take place in or near biodiversity-sensitive areas; on the contrary, thanks to enhanced protections from forest fires, they will help protect ecosystems and biodiversity.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measures require the economic operators carrying out construction works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> – The operators carrying out the construction works are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the construction works are required to ensure that components and materials that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. – Measures will be taken to reduce noise, dust and pollutant emissions during construction works.

Investment 10: Market Management System to facilitate the opening of the electricity market to competition

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle. The measure includes no significant infrastructure investments or construction work, and no SEA/EIA is needed for their implementation. Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 11: Ending energy isolation-Project of Common Interest "EuroAsia Interconnector"

Note: An EIA assessment has already been carried out for the land and marine part of the project and a positive opinion was issued with terms and conditions regarding the construction and operation of the project. These terms will be fully integrated.

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measure is compliant with the DNSH principle in this objective as it is eligible for intervention field 033 in the Annex to the RRF Regulation with a climate change coefficient of 100%. According to studies accompanying the impact assessment of the National Energy and Climate Plan of Cyprus, electricity interconnection of Cyprus will increase the penetration of renewable power generation. This will lead to lower GHG emissions.
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. Construction and operation of the electricity interconnection infrastructure will not increase the vulnerability of Cyprus to future climate change.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as inland water bodies are not affected. The already completed EIA ensures that there will be no significant impact on marine resources with appropriate measures.
The circular economy, including waste prevention and recycling	X		All relevant provisions have already been included in the Terms and Conditions of the permit of this project.
Pollution prevention and control to air, water or land	X		All relevant provisions have already been included in the Terms and Conditions of the permit of this project.

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. The interconnector installation is out of Natura areas, the Environmental Impact Assessment will ensure that onshore and offshore activities will not affect biodiversity. Protection of other environmentally sensitive coastal and marine areas have been taken into consideration in the already completed EIA process.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measures require the economic operators carrying out the construction to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>The measures include technical specifications for the equipment to be installed about their durability, reparability and recyclability. In particular, operators will limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol. Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p> <p>Waste hierarchy to be implemented throughout all actions involved in the measure, in line with the waste hierarchy included in the Waste Framework Directive, with preventing waste to be the preferred option.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> – The operators carrying out the construction are required to ensure that building components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – Measures will be taken to reduce noise, dust and pollutant emissions during construction works.

Component 2.2: Sustainable Transport

Reform 1: Establishment of an Intelligent Transportation System using Digital Twin technologies

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation	X		
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. This measure involves mainly ICT equipment. Cross-cutting requirements of Table 1 are sufficient to ensure compliance with DNSH about this environmental objective.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. This measure involves mainly ICT equipment. Cross-cutting requirements of Table 1 are sufficient to ensure compliance with DNSH about this environmental objective.
The circular economy, including waste prevention and recycling		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. Cross-cutting requirements of Table 1 about ICT equipment etc. are sufficient to ensure compliance with DNSH about this environmental objective.
Pollution prevention and control to air, water or land		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. Cross-cutting requirements of Table 1 are sufficient to ensure compliance with DNSH about this environmental objective.
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. This measure involves mainly ICT equipment. Cross-cutting requirements can ensure sufficient protection of biodiversity and ecosystems.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>Climate change mitigation:</i> Is the measure expected to lead to significant GHG emissions?</p>	<p align="center">X</p>	<p>The measure is not expected to lead to significant GHG emissions as it involves purchase, installation and operation of digital equipment, for which all cross-cutting requirements listed in Table 1 apply.</p> <p>As the measure also includes the installation and operation of data centres, in addition to cross-cutting requirements, best practices will be implemented, such as the "expected practices" included for in the most recent version of the European Code of Conduct on Data Centre Energy Efficiency, or in CEN-CENELEC document CLC TR50600-99-1 "Data centre facilities and infrastructures - Part 99-1: Recommended practices for energy management".</p> <p>For this purpose, specifications on energy efficiency will be requested for any data centre equipment to be procured in this measure.</p>

Reform 2: Provide the regulatory framework for an interoperable and effective electric vehicle recharging infrastructure and an efficient EV recharging market

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.
The circular economy, including waste prevention and recycling		X	In any case, cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	The reform will contribute to the low-carbon transition of road transport by facilitating the faster penetration of electric motor vehicles.

Reform 3: Progressively phase out the most polluting vehicles, especially in polluted urban areas

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>In any case, cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p> <p>The reform will contribute to the low-carbon transition of road transport and the improvement of urban air quality by facilitating the legislated phase out of vehicles with high CO2 and air pollutant emissions.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 1: Implementation of Sustainable Urban Mobility Projects (SUMP) and accessibility enhancing measures

Note: The measure is part of the Sustainable Urban Mobility Plans of Limassol and Larnaca respectively and have already undergone a Strategic Environmental Assessment with a positive opinion by the competent authority

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation	X		
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. The expansion of infrastructure for non-motorised and public transport will not adversely impact the vulnerability of the area to climate change impacts.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as no water fittings or water-using appliances are used or replaced. Within urban centres, water bodies are already managed and the measures will be fully compatible with current infrastructure regarding waterbodies. Marine resources will not be affected since the measures are located inland.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. The sustainable mobility investments of this measure, as a rule, are not located in or near biodiversity-sensitive areas; a SEA was already conducted and all related measures for protection of sensitive areas were included in the final design.

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
			The urban mobility plans for Limassol and Larnaca have been assessed under the national legislation of environmental impact assessment of plans/programs and a positive opinion was issued taking into consideration all environmental aspects of the measures included.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>Climate change mitigation:</i> Is the measure expected to lead to significant GHG emissions?</p>	X	<p>The measures are eligible for intervention fields 075 (cycling infrastructure) and/or 078 (multimodal transport) in the Annex to the RRF Regulation with a climate change coefficient of 40% or 100% respectively.</p> <p>The measure is not expected to lead to significant GHG emissions because:</p> <ul style="list-style-type: none"> – It will promote the use of public transport modes (buses) and non-motorised mobility (cycling, walking) in urban areas of Cyprus. In this way it will reduce the share of private cars in urban mobility, hence the investments have the potential to reduce fuel consumption in transport and increase energy efficiency, and thereby significantly reduce GHG emissions. As such, they will contribute to the national target of energy efficiency increase per year, set out according to the Energy Efficiency Directive (2012/27/EU), the decarbonisation and energy efficiency related objectives of the National Energy and Climate Plan (especially those targeted to non-ETS sectors), and the Nationally Determined Contributions to the Paris Climate Agreement. – It will be reinforced by reform 1 of component 2.1 that will lead, among others, to carbon taxation of automotive fuels, which will accelerate the shift to public and non-motorised transport.
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measures require from economic operators carrying out the sustainable mobility infrastructure works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>Waste hierarchy to be implemented throughout all actions involved in the measures, in line with the waste hierarchy included in the Waste Framework Directive, with preventing waste to be the preferred option.</p>

Questions	No	Substantive justification
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> – The sustainable mobility infrastructure will enable the increased use of public and non-motorised transport modes, which will reduce the use of private cars in urban areas; this will lead to significant reductions of direct emissions to air and a subsequent improvement in public health, in areas where the EU air quality standards set by Directive 2008/50/EU are exceeded or likely to be exceeded. – The operators carrying out the investments are required to ensure that materials used in the infrastructure construction works do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the investments are required to ensure that components and materials used in the construction that may come into contact with users of this infrastructure emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. – Measures will be taken to reduce noise, dust and pollutant emissions during construction works. <p>These measures will be implemented in urban areas with existing infrastructure, including infrastructure to manage water bodies (water streams etc). Any new construction will be fully compatible with existing infrastructure.</p>

Investment 2: Creation of electro-mobility infrastructure

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measures are eligible for intervention fields 073 and 074 in the Annex to the RRF Regulation with a climate change coefficient of 100%. The objective of the measures and the nature of the intervention field directly support the climate change mitigation objective.
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. The expansion of infrastructure for electric vehicles and the increased penetration of electric vehicles will not adversely impact the vulnerability of the area to climate change impacts.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as no water fittings or water-using infrastructure is installed or replaced. The measures will not affect marine resources. There is also no adverse impact to any water bodies.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. The infrastructure investments for charging stations and electric vehicles, as a rule, are not located in or near biodiversity-sensitive areas. In any case, the cross-cutting requirements listed in Table 1 of this assessment can ensure full compliance with the DNSH principle for this objective.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measures require from economic operators carrying out the electric charging and related infrastructure works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>Moreover, measures are in place to manage waste both in the use phase (maintenance) and the end-of-life of the vehicle fleet, including through reuse and recycling of batteries and electronics (in particular critical raw materials therein), in accordance with the waste hierarchy. Production impacts are factored in, and the scheme will not encourage the premature scrapping of serviceable vehicles. In particular, the scheme requires that any scrapped car is processed by an Authorised Treatment Facility (ATF) according to the end-of-life vehicles directive (2000/53/EC) as proven by a certificate required to take part in the scheme.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measures are eligible for intervention fields 073 and 074 in the Annex to the RRF Regulation with an environmental coefficient of 40%. They are not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> – The electric mobility infrastructure and the incentives to purchase electric vehicles will substantially reduce the use of fossil-fuelled vehicles; this will lead to significant reductions of direct emissions to air and a subsequent improvement in public health, in areas where the EU air quality standards set by Directive 2008/50/EU are exceeded or likely to be exceeded. – The operators carrying out the investments of electric charging facilities are required to ensure that materials used in the construction works do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> <li>– The operators carrying out the investments are required to ensure that components and materials used in the construction that may come into contact with users of this infrastructure emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. <li>– Measures will be taken to reduce noise, dust and pollutant emissions during construction works.

Investment 3: Promote widespread use of Electric Vehicles (EVs)

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measure is eligible for intervention field 074 in the Annex to the RRF Regulation with a climate change coefficient of 100%. The objective of the measures and the nature of the intervention field directly support the climate change mitigation objective.
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. The increased penetration of electric vehicles will not adversely impact the vulnerability of the area to climate change impacts.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified. Electrification of the vehicle stock will not affect marine resources. There is also no adverse impact to any water bodies.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. Electrification of the vehicle stock will not affect biodiversity or ecosystems.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>Measures are in place to manage waste both in the use phase (maintenance) and the end-of-life of the vehicle fleet, including through reuse and recycling of batteries and electronics (in particular critical raw materials therein), in accordance with the waste hierarchy. Production impacts are factored in, and the scheme will not encourage the premature scrapping of serviceable vehicles. In particular, the scheme requires that any scrapped car is processed by an Authorised Treatment Facility (ATF) according to the end-of-life vehicles directive (2000/53/EC) as proven by a certificate required to take part in the scheme.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is eligible for intervention field 074 in the Annex to the RRF Regulation with an environmental coefficient of 40%. It is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because the faster penetration of electric vehicles, to be enabled by this measure, will substantially reduce the use of fossil-fuelled vehicles; this will lead to reductions of direct emissions to air and a subsequent improvement in public health, in areas where the EU air quality standards set by Directive 2008/50/EU are exceeded or likely to be exceeded.</p>

Component 2.3: Smart and Sustainable Water Management

Reform 1: Water Resource Management Reform

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 1: Khoirokoitia-Famagusta Conveyor Replacement (Phase A)

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. The measure will not lead to substantial increases in GHG emissions as it involves construction of infrastructure for water supply, and its operation. The investments are absolutely necessary for ensuring adequate and sustainable water supply.
Climate change adaptation		X	The measure is eligible for intervention field 039bis in the Annex to the RRF Regulation with a climate change coefficient of 40%. It will substantially contribute to the adequate supply of the population with freshwater, thereby increasing the resilience of areas of Cyprus to increased risks of water scarcity due to climate change.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as the measure will involve construction of infrastructure for freshwater supply. No adverse effect on marine resources is foreseen.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. The new conveyor will replace the existing old one, therefore construction will take place in areas in which infrastructure already exists, and out of biodiversity-sensitive areas.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measures require the economic operators carrying out construction works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> – The operators carrying out the construction works are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the construction works are required to ensure that components and materials that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. – Measures will be taken to reduce noise, dust and pollutant emissions during construction works.

Investment 2: Water Treatment Plants (WTP) Upgrade for water quality improvement

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. The measure will not lead to substantial increases in GHG emissions as it involves replacement or upgrade of existing infrastructure for water supply and treatment, and its operation. The investments are absolutely necessary for ensuring adequate and high-quality water supply.
Climate change adaptation		X	The measure is eligible for intervention field 039bis in the Annex to the RRF Regulation with a climate change coefficient of 40%. It will substantially contribute to the adequate and high-quality supply of the population with freshwater, thereby increasing the resilience of areas of Cyprus to increased risks of water scarcity due to climate change.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as the measure will involve renovation of infrastructure for freshwater treatment. No adverse effect on marine resources is foreseen.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. The new treatment plants will replace/upgrade/renovate the existing old one, therefore construction will take place in areas in which infrastructure already exists, and out of biodiversity-sensitive areas.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measures require the economic operators carrying out construction works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> – The operators carrying out the construction works are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the construction works are required to ensure that components and materials that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. – Measures will be taken to reduce noise, dust and pollutant emissions during construction works.

Investment 3: Integrated Monitoring and Control Management System

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation	X		
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. This measure involves mainly ICT equipment. Cross-cutting requirements of Table 1 are sufficient to ensure compliance with DNSH about this environmental objective.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. This measure involves mainly ICT equipment. Cross-cutting requirements of Table 1 are sufficient to ensure compliance with DNSH about this environmental objective.
The circular economy, including waste prevention and recycling		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. Cross-cutting requirements of Table 1 about ICT equipment etc. are sufficient to ensure compliance with DNSH about this environmental objective.
Pollution prevention and control to air, water or land		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. Cross-cutting requirements of Table 1 are sufficient to ensure compliance with DNSH about this environmental objective.
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. This measure involves mainly ICT equipment. Cross-cutting requirements can ensure sufficient protection of biodiversity and ecosystems.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>Climate change mitigation:</i> Is the measure expected to lead to significant GHG emissions?</p>	<p align="center">X</p>	<p>The measure is not expected to lead to significant GHG emissions as it involves purchase, installation and operation of digital equipment, for which all cross-cutting requirements listed in Table 1 apply.</p> <p>As the measure also includes the installation and operation of data centres, in addition to cross-cutting requirements, best practices will be implemented, such as the "expected practices" included for in the most recent version of the European Code of Conduct on Data Centre Energy Efficiency, or in CEN-CENELEC document CLC TR50600-99-1 "Data centre facilities and infrastructures - Part 99-1: Recommended practices for energy management".</p> <p>For this purpose, specifications on energy efficiency will be requested for any data centre equipment to be procured in this measure.</p>

Investment 4: Smart Water Networks Management

Note: The competent authorities (Larnaca Sewerage and Drainage Board and Limassol Water Board) will be registered in the EMAS Register under the Eco-Management and Audit Scheme according to Regulation 1221/2009/EC and Law 10(I)/2012.

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation	X		
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, considering both the direct and primary indirect effects across the life cycle. The installation of smart and digital systems, sensors and monitoring platforms as well as the installation of systems to retain the purity of water will facilitate water management and improve water quality, thereby enhancing the resilience of the sewerage system to future climate related stress.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has a positive impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as no water fittings or water-using appliances will be installed. On the contrary, substantial water savings are expected through improved water management and leakage detection enabled by this measure and it will improve water and soil quality.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. The actions foreseen by this measure will take place in existing infrastructure, will not occur in or near biodiversity-sensitive areas and will not affect species protected by EU and national legislation.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>Climate change mitigation</i>: Is the measure expected to lead to significant GHG emissions?</p>	X	<p>The measure is not expected to lead to significant GHG emissions as it involves purchase, installation and operation of digital equipment, for which all cross-cutting requirements listed in Table 1 apply.</p> <p>The installation of new smart metering infrastructure has the potential to reduce energy use, increase energy efficiency and reduce GHG emissions as it will monitor the energy consumption of the sewage plant. The use of solar power and production of biogas will allow the penetration of decentralised renewable power generation. This can significantly reduce GHG emissions.</p> <p>As the measure also includes the installation and operation of data centres, in addition to cross-cutting requirements, best practices will be implemented, such as the "expected practices" included for in the most recent version of the European Code of Conduct on Data Centre Energy Efficiency, or in CEN-CENELEC document CLC TR50600-99-1 "Data centre facilities and infrastructures - Part 99-1: Recommended practices for energy management".</p> <p>For this purpose, specifications on energy efficiency will be requested for any data centre equipment to be procured in this measure.</p>
<p><i>The circular economy, including waste prevention and recycling</i>: Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p>	X	<p>The measure will improve energy and resource efficiency because it will lead to the exploitation of wastewater to produce biogas and then electricity. Moreover, it will enable the exploitation of wastewater / sludge produced by the wastewater facility.</p> <p>By installing a production unit and dosing stations of Ca(NO₃)₂ in 6 pumping stations in the network and smart meters with detection capabilities, the measure will increase the longevity of the existing infrastructure.</p> <p>The measure requires the economic operators carrying out the diverse works foreseen in this measure to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>The measure includes technical specifications for the renewable energy generation equipment that will be installed about their durability, reparability and recyclability. In particular, operators will limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol. Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO</p>

Questions	No	Substantive justification
(iii) cause significant and long-term harm to the environment in respect to the circular economy?		<p>20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p> <p>As regards electronic infrastructure, the cross-cutting requirements of Table 1 about WEEE will apply.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<ul style="list-style-type: none"> – The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because the installation of smart equipment will lead to reduction of energy consumption and hence to reductions of direct emissions to air and a subsequent improvement in public health, in areas where the EU air quality standards set by Directive 2008/50/EU are exceeded or likely to be exceeded. – By installing a production unit and dosing stations of Ca(NO₃)₂ in 6 pumping stations in the network and smart meters with detection capabilities, the measure will increase the longevity of the infrastructure as well as minimise public health risks thanks to the prevention of the formation of hydrogen sulfide. – The measure will improve the quality of water and soil and minimize pollution incidents – The operators carrying out the installation are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the installation are required to ensure that building components and materials used in the smart meter installation that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. – Measures will be taken to reduce noise, dust and pollutant emissions during installation works.

Investment 5: Anti-flood and water collection measures

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. The measure will not lead to substantial increases in GHG emissions as it involves construction of infrastructure for rainwater collection and flood protection. Cross-cutting requirements listed in Table 1 of this assessment can ensure that energy efficient equipment will be used in the life cycle of these investments, with no significant impact on GHG emissions.
Climate change adaptation		X	The measure is eligible for intervention field 035 in the Annex to the RRF Regulation with a climate change coefficient of 100%. It will substantially contribute to flood protection, thereby increasing the resilience of areas of Cyprus to increased risks of floods associated with climate change. More broadly, they will contribute to climate change adaptation (extreme weather events, rise of sea level etc).
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as the measure will involve construction of infrastructure for sustainable management of rainwater collection and flood protection – on the contrary, it will lead to protection and sustainable management of water resources. No adverse effect on marine resources is foreseen. The measure will assist in the sustainable use of rainwater networks and be able to control the quality of rainwater, thus minimising pollution of marine water from rainwater.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
The protection and restoration of biodiversity and ecosystems		X	<p>The measure is eligible for intervention field 035 in the Annex to the RRF Regulation with an environmental coefficient of 100%. The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. As a rule, the construction works will not take place in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas); in case there is an exception, the cross-cutting requirements shown in Table 1 of this assessment will ensure that no significant threat to biodiversity will be caused.</p> <p>The management of rainwater will assist in minimising flood events in urban areas, but also in biodiversity areas, and minimise adverse effects.</p>

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure requires the economic operators carrying out construction works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>Waste hierarchy will be implemented.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is eligible for intervention field 035 in the Annex to the RRF Regulation with an environmental coefficient of 100%. The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> – The operators carrying out the construction works are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the construction works are required to ensure that components and materials that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component,

Questions	No	Substantive justification
		<p>upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method.</p> <ul style="list-style-type: none"> – Measures will be taken to reduce noise, dust and pollutant emissions during construction works.

Investment 6: Enhance water security for Nicosia and Larnaca regions

Note: The competent authorities (Nicosia Water Board and Larnaca Water Board) must register their operation in the EMAS Register under the Eco-Management and Audit Scheme according to Regulation 1221/2009/EC and Law 10(I)/2012.

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. The measure will not lead to substantial increases in GHG emissions as it involves construction of infrastructure for water storage and treatment, and its operation. The investments are absolutely necessary for ensuring adequate and sustainable water supply.
Climate change adaptation		X	The measures are eligible for intervention fields 035 and 039bis in the Annex to the RRF Regulation with a climate change coefficient of 100% and 40% respectively. They will substantially contribute to the adequate supply of the population with freshwater and the avoidance of freshwater leakages, thereby increasing the resilience of areas of Cyprus to increased risks of water scarcity due to climate change.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as the measures will involve construction of infrastructure for freshwater storage and lower water leakages – on the contrary, these measures will lead to protection and sustainable use of water resources. No adverse effect on marine resources is foreseen.
The circular economy, including waste prevention and recycling	X		

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. Construction of new storage tanks will take place in areas in which infrastructure already exists, and out of biodiversity-sensitive areas.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measures require the economic operators carrying out construction works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> – The operators carrying out the construction works are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the construction works are required to ensure that components and materials that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. – Measures will be taken to reduce noise, dust and pollutant emissions during construction works.

Investment 7: Eastern Nicosia infrastructure for wastewater treatment's effluent re-use

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation	X		
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. The construction works for storage tanks and piping to store and transport recycled water will facilitate water management by reducing the needs for groundwater in agriculture and thereby enhance the resilience of the sewerage system to future climate related stress.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has a positive impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as no water fittings or water-using appliances will be installed. On the contrary, substantial water savings are expected through utilising recycled water; these will also improve water and soil quality.
The circular economy, including waste prevention and recycling	X		The measure is eligible for intervention field 041 in the Annex to the RRF Regulation with an environmental coefficient of 100%. The activity that is supported by the measure has a positive impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. The measure will improve resource efficiency because it will lead to the exploitation of wastewater and reduce the demand for groundwater for irrigation.
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. The actions foreseen by this measure will not take place in or near biodiversity-sensitive areas and will not affect species protected by EU and national legislation. Cross-cutting requirements listed in Table 1 are sufficient to fulfil this objective.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<i>Climate change mitigation</i> : Is the measure expected to lead to significant GHG emissions?	X	The measure is not expected to lead to significant GHG emissions during construction and will lower GHG emissions during operation. The installation of new water storage infrastructure will reduce energy needs by reducing pumping energy consumption, and thereby reduce GHG emissions. As such, the measure will contribute to the decarbonisation and energy efficiency related objectives of the National Energy and Climate Plan, and the Nationally Determined Contributions to the Paris Climate Agreement.
<i>Pollution prevention and control to air, water or land</i> : Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?	X	As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures. The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because: <ul style="list-style-type: none"> – The measure will improve the quality of water and soil and minimise pollution incidents. – The operators carrying out the installation are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the installation are required to ensure that building components and materials used in the smart meter installation that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. – Measures will be taken to reduce noise, dust and pollutant emissions during installation works.

Investment 8: Protection of the Marine Environment from Oil Pollution

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate Change mitigation	X		
Climate change adaptation		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. Marine pollution protection will not endanger the climate vulnerability of the affected population or infrastructure.
The sustainable use and protection of water and marine resources		X	The measure is eligible for intervention fields 038 in the Annex to the RRF Regulation with an environmental coefficient of 100%. The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified since no construction work is included and the measure will be implemented only in marine waters. On the contrary, the measure will involve equipment to ensure protection from marine pollution.
The circular economy, including waste prevention and recycling		X	The measure has no or an insignificant foreseeable impact on this environmental objective related to the direct and primary indirect effects of the measure across its life cycle. No construction works are involved.
Pollution prevention and control to air, water or land		X	The measure has no significant foreseeable impact on this environmental objective related to the direct and primary indirect effects of the measure across its life cycle. This measure is exactly aimed at pollution prevention.
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has a positive impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. The measure will protect marine biodiversity from oil pollution.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<i>Climate change mitigation:</i> Is the measure expected to lead to significant GHG emissions?	X	The measure is not expected to lead to significant GHG emissions as they involve acquisition of vessels and equipment for decontamination of sea from potential incidents of marine pollution. Cross-cutting requirements listed in Table 1 of this assessment can ensure that energy efficient and very-low-CO2 equipment will be used in the life cycle of these investments, with no significant impact on GHG emissions.

Policy Axis 3: Strengthening the Resilience and Competitiveness of the Economy

Component 3.1: New Growth Model and Diversification of the Economy

Reform 1: Move agricultural practices from the 20th century to the 21st century by investing in a national centre for excellence in agri-tech

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle. The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation. Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 2: On-line, cloud-based platform for improving the trade and information symmetry in the fresh produce supply chain

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 3: Genetic improvement of the Cyprus sheep and goat population

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 4: Enhancement of Circular Economy in the Industry

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation	X		
Climate change adaptation	X		
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, and no impacts on marine resources are foreseen. Cross-cutting requirement listed in Table 1 of this assessment can ensure DNSH compliance of the measure for this environmental objective.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. The investments do not concern installations located in or near biodiversity-sensitive areas. If there are going to be disputed cases, the cross-cutting requirements listed in Table 1 are sufficient ensure compliance with the DNSH principle for this objective. If any biomass-burning units are installed, most of the biomass is expected to be of local origin and consist of processed wood residues; provisions of the REDII Directive (2018/2001/EU) and national legislation ensure that no unsustainable forest biomass will be used for this purpose, therefore biodiversity resources and high-carbon-stock-land will be preserved.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<i>Climate change mitigation</i> : Is the measure expected to lead to significant GHG emissions?	X	<p>The measure is not expected to lead to significant GHG emissions because:</p> <ul style="list-style-type: none"> – The economic activities addressed are not dedicated to extraction or manufacture of fossil fuels. To the extent that the activities may address storage or transport of fossil fuels, they will improve the energy efficiency or waste management of these activities, and hence will certainly not increase the associated GHG emissions. – If some construction works are involved, these will comply with cross-cutting requirements of Table 1 and will not be associated with significant amounts of GHG emissions. – In line with the cross-cutting requirements listed in Table 1, which involve minimum energy performance standards for buildings, vehicles, and equipment, the investments have the potential to reduce energy use and increase energy efficiency, leading to a substantial improvement in energy performance of the businesses concerned, and significantly reduce GHG emissions. As such, they will contribute to the national target of energy efficiency increase per year, set out according to the Energy Efficiency Directive (2012/27/EU), the decarbonisation and energy efficiency related objectives of the National Energy and Climate Plan, and the Nationally Determined Contributions to the Paris Climate Agreement. – In any cases where biomass-burning units may be installed, most of the biomass is expected to be of local origin and consist of processed wood residues; provisions of the REDII Directive (2018/2001/EU) and national legislation ensure that no unsustainable forest biomass will be used for this purpose, therefore high-carbon-stock-land will be preserved. – In order to not hamper the deployment of further low-carbon alternatives if available, climate change mitigation will be reinforced by reform 1 of component 2.1 that will lead, among others, to carbon taxation of fossil fuels, which will accelerate the shift to low- or zero-carbon energy sources in the investments foreseen in this measure.
<i>Climate change adaptation</i> : Is the measure expected to lead to an increased adverse impact of the current climate and the expected future climate, on the measure itself or on people, nature or assets?	X	<p>The physical climate risks that could be material to these measures were assessed taking into account the current and future climate of Cyprus, which demonstrated that buildings and businesses in the targeted climate zones will be increasingly exposed to heatwaves. The measures involve support for modernisation and innovation activities in production processes, equipment etc., hence – taking also into account the cross-cutting requirements in Table 1 of this assessment – there is no evidence of negative direct and primary indirect effects of the measures across their life-cycle on this environmental objective.</p>
<i>The circular economy, including waste prevention and recycling</i> : Is the measure expected to:	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p>

Questions	No	Substantive justification
<p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>		<p>The measure is expected to lead to a substantial promotion of circular economy practices and processes across the industrial sector of Cyprus. Furthermore, it will be ensured that all investments involving construction, renovation, replacement and operation of new plants and equipment will not lead to inefficiencies in the use of resources and will respect waste hierarchy:</p> <ul style="list-style-type: none"> – The measures require the economic operators carrying out the investments to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol. – If applicable, the measures include technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability. In particular, operators will limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol. Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling. – To the extent that the measures to be supported can include purchase of new zero-emission company vehicles, measures are in place to manage waste both in the use phase (maintenance) and the end-of-life of the vehicle fleet, including through reuse and recycling of batteries and electronics (in particular critical raw materials therein), in accordance with the waste hierarchy. Production impacts are factored in, and the scheme will not encourage the premature scrapping of serviceable vehicles. In particular, the scheme requires that any scrapped vehicle is processed by an Authorised Treatment Facility (ATF) according to the end-of-life vehicles directive (2000/53/EC) as proven by a certificate required to take part in the scheme.
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is expected to lead to a decrease in the emissions of pollutants into air and no increase in emissions into water or land because:</p> <ul style="list-style-type: none"> – The replacement of old equipment (e.g. industrial motors or boilers) will lead to significant reductions of direct emissions to air and a subsequent improvement in public health, in areas where the EU air quality standards set by Directive 2008/50/EU are exceeded or likely to be exceeded.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> <li>– Biomass-based boilers, if installed as part of a supported investment, will be highly energy efficient and will replace more polluting equipment. Biomass to be used will comply with the provisions of Renewable Energy Directive 2018/2001/EU (REDII) and related implementing and delegated acts, and the installations will comply with the relevant national legislation on air pollutant emissions. <li>– Motor vehicles, if to be purchased in the frame of these measures, will be of the best available environmental performance as described in the cross-cutting requirements of Table 1. <li>– The operators carrying out the investments are required to ensure that building components and materials used do not contain substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. <li>– The operators carrying out the investments are required to ensure that building components and materials used that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. <li>– Measures will be taken to reduce noise, dust and pollutant emissions during works.

Reform 5: Establishment of a Coordinating Body between Central and Local Government for Efficient Waste Management

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 1: Construction of a collaborative Marine Aquaculture Infrastructure (port and land facilities) in Pentakomo coastal area

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. The measures will not lead to substantial increases in GHG emissions as they involve construction of marine aquaculture infrastructure, for which the cross-cutting requirements in Table 1 of this assessment will apply.</p> <p>Additionally, during the operation of the infrastructure the GHG emissions related to marine aquaculture activity are expected to decrease by 50%. This will be due to the reduction of the distance that the aquaculture service vessels will have to travel in order to carry out their daily activities at sea. Furthermore, during its operation, the infrastructure is expected to contribute to the reduction of GHG emissions related to the land transport of raw materials (i.e. feed) for aquaculture daily activities. The infrastructure will have larger storage capabilities to cover the weekly needs of aquaculture operations, thus decreasing the need of daily land transports.</p>
Climate change adaptation		X	<p>The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. Even under a climate-related impact like sea level rise, the infrastructure will not affect adversely the vulnerability of the coastal areas in which it will be constructed.</p> <p>The design of the infrastructure takes into consideration potential future sea level rise as well as other climate projections and weather conditions. Additionally, during its operation, it will provide a safe and secure environment both for the service vessels and crew as well as for employees. It will also allow for and support aquaculture activities to be carried out in more severe and extreme weather phenomena that have been observed during the last years and that are expected to escalate in the future.</p>
The sustainable use and protection of water and marine resources		X	<p>The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental</p>

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
			<p>degradation risks related to preserving water quality and water stress are identified, as the measures will involve construction of infrastructure for sustainable aquaculture. No adverse effect on inland water bodies is foreseen.</p> <p>It has to be noted that a spatial study and a preliminary environmental impact assessment have been carried out and have been examined by the competent authority, with a positive opinion. Before the commencement of the project, a full Environmental Impact Assessment study will be submitted both for the construction phase, as well as the operation of the infrastructure.</p>
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	<p>The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. The construction works will not take place in or near biodiversity-sensitive or protected areas.</p>

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measures require the economic operators carrying out construction works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> – The operators carrying out the construction works are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the construction works are required to ensure that components and materials that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. – Measures will be taken to reduce noise, dust and pollutant emissions during construction works.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> <li>– Measures will be taken for the protection of marine ecosystem and biodiversity during construction and operation. <li>– Additionally, the infrastructure will provide specific and specially designed areas for small vessels, marine offshore cages, as well as other relevant equipment maintenance, which will lead to the reduction of pollutants into water or land.

Investment 2: Enhancing the existing isotopic databases of Cypriot local traditional food/ drinks by developing a Block Chain platform, to ensure their identity

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle. The measure includes no infrastructure investments or construction work, and no SEA/EIA is needed for their implementation. Cross-cutting requirements listed in Table 1 will be implemented and are sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 3: Upskill the existing farming community and professionalise future labour force by investing in human capital

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle.</p> <p>The measure includes no infrastructure investments or construction work, and no SEA/EIA is needed for their implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 4: Establish a taskforce to setup the first eco-industrial science park in South Eastern Europe

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle.</p> <p>The measure includes no infrastructure investments or construction work, and no SEA/EIA is needed for their implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 5: Creation of a National Commercial Identity and promotion of traditional products

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle.</p> <p>The measure includes no infrastructure investments or construction work, and no SEA/EIA is needed for their implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 6: Scheme for modernisation and digitalisation of enterprises engaged in manufacturing and trading of agricultural products

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation	X		
Climate change adaptation	X		
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified. All measures will be implemented within existing and licensed infrastructure; therefore, measures will be fully compatible with current legislation regarding water bodies. Marine resources will not be affected since the measures are located inland. Cross-cutting requirement listed in Table 1 of this assessment can ensure DNSH compliance of the measure for this environmental objective.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. The investments do not concern installations located in or near biodiversity-sensitive areas. If there are going to be disputed cases, the cross-cutting requirements listed in Table 1 are sufficient ensure compliance with the DNSH principle for this objective. In any cases where biomass-burning units may be installed, most of the biomass is expected to be of local origin and consist of processed wood residues; provisions of the REDII Directive (2018/2001/EU) and national legislation ensure that no unsustainable forest biomass will be used for this purpose, therefore biodiversity resources and high-carbon-stock-land will be preserved.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<i>Climate change mitigation</i> : Is the measure expected to lead to significant GHG emissions?	X	<p>The measure is not expected to lead to significant GHG emissions because:</p> <ul style="list-style-type: none"> – The economic activities addressed are not dedicated to extraction or manufacture of fossil fuels. To the extent that the activities may address storage or transport of fossil fuels, they will improve the energy efficiency or waste management of these activities, and hence will certainly not increase the associated GHG emissions. – If some construction works are involved, these will be limited, will comply with cross-cutting requirements of Table 1, and will not be associated with significant amounts of GHG emissions. – In line with the cross-cutting requirements listed in Table 1, which involve minimum energy performance standards for buildings, vehicles, and equipment, the investments have the potential to reduce energy use and increase energy efficiency, leading to a substantial improvement in energy performance of the businesses concerned, and significantly reduce GHG emissions. As such, they will contribute to the national target of energy efficiency increase per year, set out according to the Energy Efficiency Directive (2012/27/EU), the decarbonisation and energy efficiency related objectives of the National Energy and Climate Plan, and the Nationally Determined Contributions to the Paris Climate Agreement. – In any cases where biomass-burning units may be installed, most of the biomass is expected to be of local origin and consist of processed wood residues; provisions of the REDII Directive (2018/2001/EU) and national legislation ensure that no unsustainable forest biomass will be used for this purpose, therefore high-carbon-stock-land will be preserved. – In order to not hamper the deployment of further low-carbon alternatives if available, climate change mitigation will be reinforced by reform 1 of component 2.1 that will lead, among others, to carbon taxation of fossil fuels, which will accelerate the shift to low- or zero-carbon energy sources in the investments foreseen in this measure.
<i>Climate change adaptation</i> : Is the measure expected to lead to an increased adverse impact of the current climate and the expected future climate, on the measure itself or on people, nature or assets?	X	<p>The physical climate risks that could be material to these measures were assessed taking into account the current and future climate of Cyprus, which demonstrated that buildings and businesses in the targeted climate zones will be increasingly exposed to heatwaves. The measures involve support for modernisation and innovation activities in production processes, equipment etc., hence – taking also into account the cross-cutting requirements in Table 1 of this assessment – there is no evidence of negative direct and primary indirect effects of the measures across their life-cycle on this environmental objective.</p>
<i>The circular economy, including waste prevention and recycling</i> : Is the measure expected to:	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p>

Questions	No	Substantive justification
<p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>		<p>The measures require the economic operators carrying out the investments to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>If applicable, the measures include technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability. In particular, operators will limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol. Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p> <p>To the extent that the measures to be supported can include purchase of new zero-emission company vehicles, measures are in place to manage waste both in the use phase (maintenance) and the end-of-life of the vehicle fleet, including through reuse and recycling of batteries and electronics (in particular critical raw materials therein), in accordance with the waste hierarchy. Production impacts are factored in, and the scheme will not encourage the premature scrapping of serviceable vehicles. In particular, the scheme requires that any scrapped vehicle is processed by an Authorised Treatment Facility (ATF) according to the end-of-life vehicles directive (2000/53/EC) as proven by a certificate required to take part in the scheme.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is expected to lead to a decrease in the emissions of pollutants into air and no increase in emissions into water or land because:</p> <ul style="list-style-type: none"> – The replacement of old equipment (e.g. industrial motors or boilers) will lead to significant reductions of direct emissions to air and a subsequent improvement in public health, in areas where the EU air quality standards set by Directive 2008/50/EU are exceeded or likely to be exceeded. – Biomass-based boilers, if installed, will be highly energy efficient and will replace more polluting equipment. Biomass to be used will comply with the provisions of Renewable Energy Directive 2018/2001/EU (REDII) and related implementing and delegated acts, and the installations will comply with the relevant national legislation on air pollutant emissions. – Motor vehicles, if to be purchased in the frame of these measures, will be of the best available environmental performance as described in the cross-cutting requirements of Table 1.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> <li>– The operators carrying out the investments are required to ensure that building components and materials used do not contain substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. <li>– The operators carrying out the investments are required to ensure that building components and materials used that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. <li>– - Measures will be taken to reduce noise, dust and pollutant emissions during works.

Investment 7: Scheme for the Enhancement of Large Enterprises Competitiveness in the Manufacturing Sector

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation	X		
Climate change adaptation	X		
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, and no impacts on marine resources are foreseen. Cross-cutting requirements listed in Table 1 of this assessment can ensure DNSH compliance of the measure for this environmental objective.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. The investments do not concern installations located in or near biodiversity-sensitive areas. If there are going to be disputed cases, the cross-cutting requirements listed in Table 1 are sufficient to ensure compliance with the DNSH principle for this objective. If there are cases where biomass-burning units may be installed, most of the biomass is expected to be of local origin and consist of processed wood residues; provisions of the REDII Directive (2018/2001/EU) and national legislation ensure that no unsustainable forest biomass will be used for this purpose, therefore biodiversity resources and high-carbon-stock-land will be preserved.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<i>Climate change mitigation</i> : Is the measure expected to lead to significant GHG emissions?	X	<p>The measure is not expected to lead to significant GHG emissions because:</p> <ul style="list-style-type: none"> – The economic activities addressed are not dedicated to extraction or manufacture of fossil fuels. To the extent that the activities may address storage or transport of fossil fuels, they will improve the energy efficiency or waste management of these activities, and hence will certainly not increase the associated GHG emissions. – If some construction works are involved, these will be limited, will comply with cross-cutting requirements of Table 1, and will not be associated with significant amounts of GHG emissions. – In line with the cross-cutting requirements listed in Table 1, which involve minimum energy performance standards for buildings, vehicles, and equipment, the investments have the potential to reduce energy use and increase energy efficiency, leading to a substantial improvement in energy performance of the businesses concerned, and significantly reduce GHG emissions. As such, they will contribute to the national target of energy efficiency increase per year, set out according to the Energy Efficiency Directive (2012/27/EU), the decarbonisation and energy efficiency related objectives of the National Energy and Climate Plan, and the Nationally Determined Contributions to the Paris Climate Agreement. – In any cases where biomass-burning units may be installed, most of the biomass is expected to be of local origin and consist of processed wood residues; provisions of the REDII Directive (2018/2001/EU) and national legislation ensure that no unsustainable forest biomass will be used for this purpose, therefore high-carbon-stock-land will be preserved. – In order to not hamper the deployment of further low-carbon alternatives if available, climate change mitigation will be reinforced by reform 1 of component 2.1 that will lead, among others, to carbon taxation of fossil fuels, which will accelerate the shift to low- or zero-carbon energy sources in the investments foreseen in this measure.
<i>Climate change adaptation</i> : Is the measure expected to lead to an increased adverse impact of the current climate and the expected future climate, on the measure itself or on people, nature or assets?	X	<p>The physical climate risks that could be material to these measures were assessed taking into account the current and future climate of Cyprus, which demonstrated that buildings and businesses in the targeted climate zones will be increasingly exposed to heatwaves. The measures involve support for modernisation and innovation activities in production processes, equipment etc., hence – taking also into account the cross-cutting requirements in Table 1 of this assessment – there is no evidence of negative direct and primary indirect effects of the measures across their life-cycle on this environmental objective.</p>
<i>The circular economy, including waste prevention and recycling</i> : Is the measure expected to:	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p>

Questions	No	Substantive justification
<p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>		<p>The measures require the economic operators carrying out the investments to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>If applicable, the measures include technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability. In particular, operators will limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol. Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p> <p>To the extent that the measures to be supported can include purchase of new zero-emission company vehicles, measures are in place to manage waste both in the use phase (maintenance) and the end-of-life of the vehicle fleet, including through reuse and recycling of batteries and electronics (in particular critical raw materials therein), in accordance with the waste hierarchy. Production impacts are factored in, and the scheme will not encourage the premature scrapping of serviceable vehicles. In particular, the scheme requires that any scrapped vehicle is processed by an Authorised Treatment Facility (ATF) according to the end-of-life vehicles directive (2000/53/EC) as proven by a certificate required to take part in the scheme.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is expected to lead to a decrease in the emissions of pollutants into air and no increase in emissions into water or land because:</p> <ul style="list-style-type: none"> – The replacement of old equipment (e.g. industrial motors or boilers) will lead to significant reductions of direct emissions to air and a subsequent improvement in public health, in areas where the EU air quality standards set by Directive 2008/50/EU are exceeded or likely to be exceeded. – Biomass-based boilers, if installed, will be highly energy efficient and will replace more polluting equipment. Biomass to be used will comply with the provisions of Renewable Energy Directive 2018/2001/EU (REDII) and related implementing and delegated acts, and the installations will comply with the relevant national legislation on air pollutant emissions. – Motor vehicles, if to be purchased in the frame of these measures, will be of the best available environmental performance as described in the cross-cutting requirements of Table 1.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> <li>– The operators carrying out the investments are required to ensure that building components and materials used do not contain substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. <li>– The operators carrying out the investments are required to ensure that building components and materials used that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. <li>– - Measures will be taken to reduce noise, dust and pollutant emissions during works.

Investment 8: Enhancing the sustainability and added value of the tourism sector

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. The measure will not lead to substantial increases in GHG emissions as it involves construction of buildings and other infrastructure and purchase of digital and other equipment. Cross-cutting requirements listed in Table 1 of this assessment can ensure that buildings will be energy efficient and also that energy efficient equipment will be used in the life cycle of this investment, with no significant impact on GHG emissions.
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. The measure involves construction / extension / renovation of buildings and other infrastructure and modernisation / purchase of equipment, and hence will not increase the vulnerability of population, ecosystems or infrastructure to climate change. The cross-cutting requirements of Table 1 are sufficient to ensure compliance with the DNSH principle for this objective.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as the measure will not involve any substantial water-consuming works and will not affect water bodies. Most of the activities take place in already developed areas where waterbodies are already managed accordingly. Further to cross-cutting requirements of Table 1, all necessary measures to protect any waterbodies during construction works will be applied. There are no negative impacts on marine resources.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Cross-cutting requirements listed in Table 1 of this assessment can ensure sufficient protection of biodiversity and ecosystems.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure requires the economic operators carrying out construction works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>The measure includes technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability.</p> <p>Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> – The operators carrying out any construction works are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out any construction works are required to ensure that components and materials that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. – Measures will be taken to reduce noise, dust and pollutant emissions during any construction works.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> <li>– The use of energy efficient equipment as mandated through cross-cutting requirements of Table 1 will make sure that there will be no significant emissions of pollutants during the life cycle of the investment.

Investment 9: Promotion of circular economy on hotel establishments

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation	X		
Climate change adaptation	X		
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, and no impacts on marine resources are foreseen. Cross-cutting requirement listed in Table 1 of this assessment can ensure DNSH compliance of the measure for this environmental objective.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. The investments do not concern installations located in or near biodiversity-sensitive areas. If there are going to be disputed cases, the cross-cutting requirements listed in Table 1 are sufficient ensure compliance with the DNSH principle for this objective. In any cases where biomass-burning units may be installed, most of the biomass is expected to be of local origin and consist of processed wood residues; provisions of the REDII Directive (2018/2001/EU) and national legislation ensure that no unsustainable forest biomass will be used for this purpose, therefore biodiversity resources and high-carbon-stock-land will be preserved.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<i>Climate change mitigation</i> : Is the measure expected to lead to significant GHG emissions?	X	<p>The measure is not expected to lead to significant GHG emissions because:</p> <ul style="list-style-type: none"> – If some construction works are involved, these will comply with cross-cutting requirements of Table 1 and will not be associated with significant amounts of GHG emissions. – In line with the cross-cutting requirements listed in Table 1, which involve minimum energy performance standards for buildings, vehicles, and equipment, the investments have the potential to reduce energy use and increase energy efficiency, leading to a substantial improvement in energy performance of the businesses concerned, and significantly reduce GHG emissions. As such, they will contribute to the national target of energy efficiency increase per year, set out according to the Energy Efficiency Directive (2012/27/EU), the decarbonisation and energy efficiency related objectives of the National Energy and Climate Plan, and the Nationally Determined Contributions to the Paris Climate Agreement. – In any cases where biomass-burning units may be installed, most of the biomass is expected to be of local origin and consist of processed wood residues; provisions of the REDII Directive (2018/2001/EU) and national legislation ensure that no unsustainable forest biomass will be used for this purpose, therefore high-carbon-stock-land will be preserved. – In order to not hamper the deployment of further low-carbon alternatives if available, climate change mitigation will be reinforced by reform 1 of component 2.1 that will lead, among others, to carbon taxation of fossil fuels, which will accelerate the shift to low- or zero-carbon energy sources in the investments foreseen in this measure.
<i>Climate change adaptation</i> : Is the measure expected to lead to an increased adverse impact of the current climate and the expected future climate, on the measure itself or on people, nature or assets?	X	<p>The physical climate risks that could be material to these measures were assessed taking into account the current and future climate of Cyprus, which demonstrated that buildings and businesses in the targeted climate zones will be increasingly exposed to heatwaves. The measures involve support for modernisation and innovation activities in production processes, equipment etc., hence – taking also into account the cross-cutting requirements in Table 1 of this assessment – there is no evidence of negative direct and primary indirect effects of the measures across their life-cycle on this environmental objective.</p>
<i>The circular economy, including waste prevention and recycling</i> : Is the measure expected to: (i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is expected to lead to a substantial promotion of circular economy practices and processes across the hotel sector of Cyprus. Furthermore, it will be ensured that any investments involving construction, renovation, replacement and operation of equipment will not lead to inefficiencies in the use of resources and will respect waste hierarchy:</p>

Questions	No	Substantive justification
<p>incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>		<ul style="list-style-type: none"> – The measures require the economic operators carrying out the investments to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol. – If applicable, the measures include technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability. In particular, operators will limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol. Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling. – To the extent that the measures to be supported can include purchase of new zero-emission company vehicles, measures are in place to manage waste both in the use phase (maintenance) and the end-of-life of the vehicle fleet, including through reuse and recycling of batteries and electronics (in particular critical raw materials therein), in accordance with the waste hierarchy. Production impacts are factored in, and the scheme will not encourage the premature scrapping of serviceable vehicles. In particular, the scheme requires that any scrapped vehicle is processed by an Authorised Treatment Facility (ATF) according to the end-of-life vehicles directive (2000/53/EC) as proven by a certificate required to take part in the scheme.
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is expected to lead to a decrease in the emissions of pollutants into air and no increase in emissions into water or land because:</p> <ul style="list-style-type: none"> – The replacement of old equipment (e.g. industrial motors or boilers) will lead to significant reductions of direct emissions to air and a subsequent improvement in public health, in areas where the EU air quality standards set by Directive 2008/50/EU are exceeded or likely to be exceeded. – Biomass-based boilers, if installed, will be highly energy efficient and will replace more polluting equipment. Biomass to be used will comply with the provisions of Renewable Energy Directive 2018/2001/EU (REDII) and related implementing and delegated acts, and the installations will comply with the relevant national legislation on air pollutant emissions.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> <li>– Motor vehicles, if to be purchased in the frame of these measures, will be of the best available environmental performance as described in the cross-cutting requirements of Table 1. <li>– The operators carrying out the investments are required to ensure that building components and materials used do not contain substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. <li>– The operators carrying out the investments are required to ensure that building components and materials used that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. <li>– Measures will be taken to reduce noise, dust and pollutant emissions during works.

Investment 10: Enrichment of the tourism product in rural, mountainous and remote areas

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. The measure will not lead to substantial increases in GHG emissions as it involves construction of buildings and other infrastructure and purchase of digital and other equipment. Cross-cutting requirements can ensure that buildings will be energy efficient and also that energy efficient equipment will be used in the life cycle of this investment, with no significant impact on GHG emissions.
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Further to cross-cutting requirements, the measure involves construction/extension/renovation of buildings and other infrastructure and purchase of digital and other equipment, and hence will not increase the vulnerability of population, ecosystems or infrastructure to climate change.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as the measure will not involve any substantial water-consuming works and will not affect water bodies. Most of the activities take place in already developed areas (urban centres) where waterbodies are already managed accordingly. Further to cross-cutting requirements, all necessary measures to protect any waterbodies during construction works will be applied. There are no negative impacts on marine resources.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
The protection and restoration of biodiversity and ecosystems	X		

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure requires the economic operators carrying out construction works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>The measure includes technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability.</p> <p>Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> – The operators carrying out the construction works are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the construction works are required to ensure that components and materials that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. – Measures will be taken to reduce noise, dust and pollutant emissions during construction works.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> – The use of energy efficient equipment as mandated through cross-cutting requirements listed in Table 1 will make sure that there will be no significant emissions of pollutants during the life cycle of the investment.
<p><i>The protection and restoration of biodiversity and ecosystems:</i> Is the measure expected to be:</p> <p>(i) significantly detrimental to the good condition and resilience of ecosystems; or</p> <p>(ii) detrimental to the conservation status of habitats and species, including those of Union interest?</p>	X	<p>From a tourism perspective, defining remote areas takes into account various variables such as the degree of urbanisation of municipalities and community councils, but also the distance and ease of accessibility from developed tourist areas. Consequently, the list of remote areas consists mostly, but not exclusively, of the Tillyria and Chrysochou Bay areas. Eligible proposals under the Schemes are exclusively for existing licensed establishments and enterprises, hence no new construction is foreseen. The aim is, amongst others, to improve the visual aesthetics of the existing built environment. This will alleviate the stress on natural resources of already developed tourist areas and help the industry adapt to the new greener era.</p> <p>Furthermore, cross-cutting requirements listed in Table 1 can ensure sufficient protection of biodiversity and ecosystems in all investments to be supported by this measure.</p>

Investment 11: Extension of Green Points National Network – Phase A and Phase B

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation	X		
Climate change adaptation		X	The measures aim to facilitate the achievement of waste reduction, reuse and recycling targets of Cyprus. This does not affect the vulnerability of the area to climate change; hence there is no evidence of negative direct and primary indirect effects of the measures across their life-cycle on this environmental objective.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to water stress are identified, as the measures include small-scale construction works. No impacts on marine resources are foreseen. The measure aims to facilitate the achievement of waste reduction, reuse and recycling targets of Cyprus. and thereby reduce potential water, soil and air pollution from waste landfill and illegal dumping areas. Construction includes basic infrastructure with no impacts to water bodies – mostly in urban areas where existing waterbodies are being managed accordingly.
The circular economy, including waste prevention and recycling		X	The measure is eligible for intervention fields 042 & 044 in the Annex to the RRF Regulation with an environmental coefficient of 100%. The objective of the measures and the nature of the intervention field directly support the circular economy objective. Waste hierarchy implementation will be ensured in line with cross-cutting provisions shown in Table 1.
Pollution prevention and control to air, water or land		X	The measure is eligible for intervention fields 042 & 044 in the Annex to the RRF Regulation with an environmental coefficient of 100%. The objective of the measures and the nature of the intervention field directly support the pollution prevention objective.
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. The investments of

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
			<p>this scheme will be small-scale installations not located in or near biodiversity-sensitive areas. Moreover, the measure will improve a situation where waste is disposed of illegally or in landfills, and thereby will reduce potential adverse effects on biodiversity.</p> <p>In any case, as mentioned in the cross-cutting requirements, these measures will undergo a Strategic Environmental Assessment.</p>

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<i>Climate change mitigation</i> : Is the measure expected to lead to significant GHG emissions?	X	<p>The measure is eligible for intervention fields 042 & 044 in the Annex to the RRF Regulation with a climate change coefficient of 40%.</p> <p>The measure is not expected to lead to significant GHG emissions because emissions during construction of the Green Points will be negligible since these will be simple construction sites. The cross-cutting requirements of Table 1 can ensure energy performance in line with this objective.</p> <p>Moreover, the measure will reduce the amount of waste going to landfills and will also reduce illegal and uncontrollable dumping; thus it will contribute to lower methane emissions.</p>

Investment 12: Waste Management towards Circular Economy

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	Justification if 'No' has been selected
Climate change mitigation	X		
Climate change adaptation		X	The measure aims to facilitate the achievement of waste reduction, reuse and recycling targets of Cyprus and the separate collection and proper treatment of biowaste in order to produce environmentally safe compost and reduce the amount of waste going to landfills. These actions do not affect the vulnerability of the area to climate change; hence there is no evidence of negative direct and primary indirect effects of the measures across their life-cycle on this environmental objective.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to water stress are identified, as no water fittings or water-using appliances are being installed. No impacts on marine resources are foreseen. The measure will lead to waste reduction, reuse and recycling and will improve a situation where waste is disposed of in landfills posing threats to water resources.
The circular economy, including waste prevention and recycling		X	The measure is eligible for intervention field 042 in the Annex to the RRF Regulation with an environmental coefficient of 100%. The objective of the measures and the nature of the intervention field directly support the circular economy objective.
Pollution prevention and control to air, water or land		X	The measure is eligible for intervention field 042 in the Annex to the RRF Regulation with an environmental coefficient of 100%. The objective of the measures and the nature of the intervention field directly support the pollution prevention objective. The measure is expected to lead to no increase in emissions into air, water or land; on the contrary it will reduce emissions because:

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
			<ul style="list-style-type: none"> - Methane emissions will be avoided thanks to the reduction of waste disposal in landfills; - National legislation will be implemented to avoid leakages of biowaste in soils and water reservoirs and ensure preservation of land and water quality.
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. The investments of this scheme do not concern installations located in or near biodiversity-sensitive areas. Moreover, the measure will improve a situation where waste is disposed of in landfills and thereby reduce potential adverse effects on biodiversity from landfill areas.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<i>Climate change mitigation</i> : Is the measure expected to lead to significant GHG emissions?	X	<p>The measure is eligible for intervention field 042 in the Annex to the RRF Regulation with a climate change coefficient of 40%.</p> <p>The measure is not expected to lead to GHG emissions because the foreseen actions will lead to avoidance of the disposal of organic waste in landfills and will also reduce illegal and uncontrollable dumping, thereby reducing the emissions of methane.</p> <p>Emissions during any construction works foreseen will be negligible since these will be relatively simple and light construction sites and cross-cutting requirements listed in Table 1 of this assessment will be fulfilled.</p>

Investment 13: Establishment of the Orounda Livestock Waste and Animal-By-Product (ABP) Management Facilities with a Biogas Production Unit

Note: The final description of the measure in the RRP states than an EIA will be conducted in the first year of the project.

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation	X		
Climate change adaptation		X	The measure involves construction of a biogas plant from animal waste, which does not affect the vulnerability of the area to climate change; in combination with the cross-cutting requirements of Table 1 of this assessment, there is no evidence of negative direct and primary indirect effects of the measures across their life-cycle on this environmental objective.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No significant environmental degradation risks related to water stress are identified, as no water fittings or water-using appliances are being installed. No impacts on marine resources are foreseen. National legislation will be implemented to avoid leakages of animal by-products in water reservoirs and ensure preservation and improvement of water quality due to decrease of water pollution. The measure will improve a situation where animal waste is illegally dumped and not treated throughout the area. It will help in restoring water and soil quality in the area and assist in efficient use of treated water and solid waste.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. The measure will not be located in or near biodiversity-sensitive areas.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>Climate change mitigation:</i> Is the measure expected to lead to significant GHG emissions?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is eligible for intervention fields 030 and 044 in the Annex to the RRF Regulation with a climate change coefficient of 40%.</p> <p>The measure is not expected to lead to significant GHG emissions because:</p> <ul style="list-style-type: none"> – The economic activities addressed are not dedicated to extraction or manufacture of fossil fuels. – Through the production of biogas, which can be used to generate electricity and heat, the investments have the potential to reduce energy use, leading to a substantial improvement in energy performance of the businesses concerned. – The investments will help avoid methane emissions from animal waste, thereby significantly reducing GHG emissions. <p>Hence the measure will contribute to the decarbonisation related objectives of the National Energy and Climate Plan, and the Nationally Determined Contributions to the Paris Climate Agreement.</p>
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is eligible for intervention fields 030 and 044 in the Annex to the RRF Regulation with an environmental coefficient of 40%. The measure involves valorisation of animal waste.</p> <p>The measure requires the economic operators carrying out the investments to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p>

Questions	No	Substantive justification
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is expected to lead no increase in emissions into air, water or land; on the contrary it will reduce emissions because:</p> <ul style="list-style-type: none"> – Methane emissions will be avoided thanks to the conversion of animal waste to biogas. – National legislation will be implemented to avoid leakages of animal by-products in soils and water reservoirs and ensure preservation of land and water quality. – The operators carrying out the investment are required to ensure that building components and materials used do not contain substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the investment are required to ensure that building components and materials that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. – Measures will be taken to reduce noise, dust and pollutant emissions during construction works. – Further measures related to air pollution avoidance during the operation of the plant will be included in the EIA to be conducted in the beginning of the implementation of this measure.

Component 3.2: Enhanced Research & Innovation

Reform 1: Comprehensive National R&I Policy supported by data-driven policy tools to support the R&I Ecosystem and to enhance links between policy making and implementation

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle. The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation. Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 2: Incentives to encourage and attract investments and human capital in R&I

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 3: Introduce policies and incentives to facilitate and foster access to publicly funded Research infrastructures and laboratories

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 1: Setup and operate a central knowledge transfer office

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle.</p> <p>The measure includes no infrastructure investments or construction work, and no SEA/EIA is needed for their implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 2: Innovation Funding Programs & Funding schemes for the enhancement of growth & competitiveness of startups, innovative companies and SMEs

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation	X		
Climate change adaptation	X		
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, and no impacts on marine resources are foreseen. Cross-cutting requirements listed in Table 1 of this assessment can ensure DNSH compliance of the measure for this environmental objective.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. The investments do not concern installations located in or near biodiversity-sensitive areas. If there are going to be disputed cases, the cross-cutting requirements listed in Table 1 are sufficient to ensure compliance with the DNSH principle for this objective.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<i>Climate change mitigation</i> : Is the measure expected to lead to significant GHG emissions?	X	<p>The measure is not expected to lead to significant GHG emissions because:</p> <ul style="list-style-type: none"> – The economic activities addressed are not dedicated to extraction or manufacture of fossil fuels. To the extent that the activities may address storage or transport of fossil fuels, they will improve the energy efficiency or waste management of these activities, and hence will certainly not increase the associated GHG emissions. – If some construction works are involved, these will be limited, will comply with cross-cutting requirements of Table 1, and will not be associated with significant amounts of GHG emissions. – In line with the cross-cutting requirements listed in Table 1, which involve minimum energy performance standards for buildings, vehicles, and equipment, the investments have the potential to reduce energy use and increase energy efficiency, leading to a substantial improvement in energy performance of the businesses concerned, and significantly reduce GHG emissions. As such, they will contribute to the national target of energy efficiency increase per year, set out according to the Energy Efficiency Directive (2012/27/EU), the decarbonisation and energy efficiency related objectives of the National Energy and Climate Plan, and the Nationally Determined Contributions to the Paris Climate Agreement. – In order to not hamper the deployment of further low-carbon alternatives if available, climate change mitigation will be reinforced by reform 1 of component 2.1 that will lead, among others, to carbon taxation of fossil fuels, which will accelerate the shift to low- or zero-carbon energy sources in the investments foreseen in this measure.
<i>Climate change adaptation</i> : Is the measure expected to lead to an increased adverse impact of the current climate and the expected future climate, on the measure itself or on people, nature or assets?	X	<p>The physical climate risks that could be material to these measures were assessed taking into account the current and future climate of Cyprus, which demonstrated that buildings and businesses in the targeted climate zones will be increasingly exposed to heatwaves. The measures involve support for modernisation and innovation activities in production processes, equipment etc., hence – taking also into account the cross-cutting requirements in Table 1 of this assessment – there is no evidence of negative direct and primary indirect effects of the measures across their life-cycle on this environmental objective.</p>
<i>The circular economy, including waste prevention and recycling</i> : Is the measure expected to: (i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measures require the economic operators carrying out the investments to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-</p>

Questions	No	Substantive justification
<p>incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>		<p>use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>If applicable, the measures include technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability. In particular, operators will limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol. Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p> <p>To the extent that the measures to be supported can include purchase of new zero-emission company vehicles, measures are in place to manage waste both in the use phase (maintenance) and the end-of-life of the vehicle fleet, including through reuse and recycling of batteries and electronics (in particular critical raw materials therein), in accordance with the waste hierarchy. Production impacts are factored in, and the scheme will not encourage the premature scrapping of serviceable vehicles. In particular, the scheme requires that any scrapped vehicle is processed by an Authorised Treatment Facility (ATF) according to the end-of-life vehicles directive (2000/53/EC) as proven by a certificate required to take part in the scheme.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is expected to lead to a decrease in the emissions of pollutants into air and no increase in emissions into water or land because:</p> <ul style="list-style-type: none"> – The replacement of old equipment (e.g. industrial motors or boilers) will lead to significant reductions of direct emissions to air and a subsequent improvement in public health, in areas where the EU air quality standards set by Directive 2008/50/EU are exceeded or likely to be exceeded. – Motor vehicles, if to be purchased in the frame of these measures, will be of the best available environmental performance as described in the cross-cutting requirements of Table 1. – The operators carrying out the investments are required to ensure that building components and materials used do not contain substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the investments are required to ensure that building components and materials used that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon

Questions	No	Substantive justification
		testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. – Measures will be taken to reduce noise, dust and pollutant emissions during works.

Investment 3: Thematic Research and Innovation Funding Programme on Green Transition

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation	X		
Climate change adaptation	X		
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, and no impacts on marine resources are foreseen. Cross-cutting requirements listed in Table 1 of this assessment can ensure DNSH compliance of the measure for this environmental objective.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. The investments do not concern installations located in or near biodiversity-sensitive areas. If there are going to be disputed cases, the cross-cutting requirements listed in Table 1 are sufficient to ensure compliance with the DNSH principle for this objective. In any cases where biomass-burning units may be installed, most of the biomass is expected to be of local origin and consist of processed wood residues; provisions of the REDII Directive (2018/2001/EU) and national legislation ensure that no unsustainable forest biomass will be used for this purpose, therefore biodiversity resources and high-carbon-stock-land will be preserved.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>Climate change mitigation:</i> Is the measure expected to lead to significant GHG emissions?</p>	X	<p>The measure is not expected to lead to significant GHG emissions because:</p> <ul style="list-style-type: none"> – The economic activities addressed are not dedicated to extraction or manufacture of fossil fuels. To the extent that the activities may address storage or transport of fossil fuels, they will improve the energy efficiency or waste management of these activities, and hence will certainly not increase the associated GHG emissions. – If some construction works are involved, these will be limited, will comply with cross-cutting requirements of Table 1, and will not be associated with significant amounts of GHG emissions. – In line with the cross-cutting requirements listed in Table 1, which involve minimum energy performance standards for buildings, vehicles, and equipment, the investments have the potential to reduce energy use and increase energy efficiency, leading to a substantial improvement in energy performance of the businesses concerned, and significantly reduce GHG emissions. As such, they will contribute to the national target of energy efficiency increase per year, set out according to the Energy Efficiency Directive (2012/27/EU), the decarbonisation and energy efficiency related objectives of the National Energy and Climate Plan, and the Nationally Determined Contributions to the Paris Climate Agreement. – In any cases where biomass-burning units may be installed, most of the biomass is expected to be of local origin and consist of processed wood residues; provisions of the REDII Directive (2018/2001/EU) and national legislation ensure that no unsustainable forest biomass will be used for this purpose, therefore high-carbon-stock-land will be preserved. – In order to not hamper the deployment of further low-carbon alternatives if available, climate change mitigation will be reinforced by reform 1 of component 2.1 that will lead, among others, to carbon taxation of fossil fuels, which will accelerate the shift to low- or zero-carbon energy sources in the investments foreseen in this measure.
<p><i>Climate change adaptation:</i> Is the measure expected to lead to an increased adverse impact of the current climate and the expected future climate, on the measure itself or on people, nature or assets?</p>	X	<p>The physical climate risks that could be material to these measures were assessed taking into account the current and future climate of Cyprus, which demonstrated that buildings and businesses in the targeted climate zones will be increasingly exposed to heatwaves. The measures involve support for modernisation and innovation activities in production processes, equipment etc., hence – taking also into account the cross-cutting requirements in Table 1 of this assessment – there is no evidence of negative direct and primary indirect effects of the measures across their life-cycle on this environmental objective.</p>
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p>

Questions	No	Substantive justification
<p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>		<p>The measures require the economic operators carrying out the investments to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>If applicable, the measures include technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability. In particular, operators will limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol. Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p> <p>To the extent that the measures to be supported can include purchase of new zero-emission vehicles, measures are in place to manage waste both in the use phase (maintenance) and the end-of-life of the vehicle fleet, including through reuse and recycling of batteries and electronics (in particular critical raw materials therein), in accordance with the waste hierarchy. Production impacts are factored in, and the scheme will not encourage the premature scrapping of serviceable vehicles. In particular, the scheme requires that any scrapped vehicle is processed by an Authorised Treatment Facility (ATF) according to the end-of-life vehicles directive (2000/53/EC) as proven by a certificate required to take part in the scheme.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>To the extent that the funded innovation actions may include construction/renovation/replacement of older equipment, the measure is expected to lead to a decrease in the emissions of pollutants into air and no increase in emissions into water or land because:</p> <ul style="list-style-type: none"> – The replacement of old equipment (e.g. motors or boilers) will lead to significant reductions of direct emissions to air and a subsequent improvement in public health, in areas where the EU air quality standards set by Directive 2008/50/EU are exceeded or likely to be exceeded. – Biomass-based boilers, if installed, will be highly energy efficient and will replace more polluting equipment. Biomass to be used will comply with the provisions of Renewable Energy Directive 2018/2001/EU (REDII) and related implementing and delegated acts, and the installations will comply with the relevant national legislation on air pollutant emissions.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> <li>– Motor vehicles, if to be purchased in the frame of these measures, will be of the best available environmental performance as described in the cross-cutting requirements of Table 1. <li>– The operators carrying out the investments are required to ensure that building components and materials used do not contain substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. <li>– The operators carrying out the investments are required to ensure that building components and materials used that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. <li>– Measures will be taken to reduce noise, dust and pollutant emissions during any works. <li>– Since this is an innovation measure specifically focusing on the green transition, it is very likely that the supported activities will lead to investments in processes and equipment of even better environmental performance, thus over-exceeding the requirements mentioned in the above bullet points.

Investment 4: Incentive Scheme for the development of classified Laboratories and Deployment of Classified Communication Networks in Research and Academic Organisations including Centres of Excellence, Academic Institutions, Research Centres as well as in companies engaged in R&I on Dual Use Technologies

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation	X		
Climate change adaptation	X		
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, and no impacts on marine resources are foreseen. Cross-cutting requirements listed in Table 1 of this assessment can ensure DNSH compliance of the measure for this environmental objective.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. The investments do not concern installations located in or near biodiversity-sensitive areas. If there are going to be disputed cases, the cross-cutting requirements listed in Table 1 are sufficient to ensure compliance with the DNSH principle for this objective.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<i>Climate change mitigation</i> : Is the measure expected to lead to significant GHG emissions?	X	<p>The measure is not expected to lead to significant GHG emissions because:</p> <ul style="list-style-type: none"> – The economic activities addressed are not dedicated to extraction or manufacture of fossil fuels. To the extent that the activities may address storage or transport of fossil fuels, they will improve the energy efficiency or waste management of these activities, and hence will certainly not increase the associated GHG emissions. – If some construction works are involved, these will be limited, will comply with cross-cutting requirements of Table 1, and will not be associated with significant amounts of GHG emissions. – In line with the cross-cutting requirements listed in Table 1, which involve minimum energy performance standards for buildings, vehicles, and equipment, the investments have the potential to reduce energy use and increase energy efficiency, leading to a substantial improvement in energy performance of the businesses concerned, and significantly reduce GHG emissions. As such, they will contribute to the national target of energy efficiency increase per year, set out according to the Energy Efficiency Directive (2012/27/EU), the decarbonisation and energy efficiency related objectives of the National Energy and Climate Plan, and the Nationally Determined Contributions to the Paris Climate Agreement. – In order to not hamper the deployment of further low-carbon alternatives if available, climate change mitigation will be reinforced by reform 1 of component 2.1 that will lead, among others, to carbon taxation of fossil fuels, which will accelerate the shift to low- or zero-carbon energy sources in the investments foreseen in this measure.
<i>Climate change adaptation</i> : Is the measure expected to lead to an increased adverse impact of the current climate and the expected future climate, on the measure itself or on people, nature or assets?	X	<p>The physical climate risks that could be material to these measures were assessed taking into account the current and future climate of Cyprus, which demonstrated that buildings and businesses in the targeted climate zones will be increasingly exposed to heatwaves. The measures involve support for modernisation and innovation activities in production processes, equipment etc., hence – taking also into account the cross-cutting requirements in Table 1 of this assessment – there is no evidence of negative direct and primary indirect effects of the measures across their life-cycle on this environmental objective.</p>
<i>The circular economy, including waste prevention and recycling</i> : Is the measure expected to: (i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measures require the economic operators carrying out the investments to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-</p>

Questions	No	Substantive justification
<p>incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>		<p>use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>If applicable, the measures include technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability. In particular, operators will limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol. Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p> <p>To the extent that the measures to be supported can include purchase of new zero-emission company vehicles, measures are in place to manage waste both in the use phase (maintenance) and the end-of-life of the vehicle fleet, including through reuse and recycling of batteries and electronics (in particular critical raw materials therein), in accordance with the waste hierarchy. Production impacts are factored in, and the scheme will not encourage the premature scrapping of serviceable vehicles. In particular, the scheme requires that any scrapped vehicle is processed by an Authorised Treatment Facility (ATF) according to the end-of-life vehicles directive (2000/53/EC) as proven by a certificate required to take part in the scheme.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is expected to lead to a decrease in the emissions of pollutants into air and no increase in emissions into water or land because:</p> <ul style="list-style-type: none"> – The replacement of old equipment (e.g. industrial motors or boilers) will lead to significant reductions of direct emissions to air and a subsequent improvement in public health, in areas where the EU air quality standards set by Directive 2008/50/EU are exceeded or likely to be exceeded. – Motor vehicles, if to be purchased in the frame of these measures, will be of the best available environmental performance as described in the cross-cutting requirements of Table 1. – The operators carrying out the investments are required to ensure that building components and materials used do not contain substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the investments are required to ensure that building components and materials used that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon

Questions	No	Substantive justification
		<p>testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method.</p> <ul style="list-style-type: none"> - - Measures will be taken to reduce noise, dust and pollutant emissions during works.

Component 3.3: Business Support for Competitiveness

Reform 1: Facilitation of Strategic investments

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 2: Enhancing Fast-Track Business Activation Mechanism

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 3: Modernisation of the Companies Law

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 4: Design and establish a National Promotional Agency

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 5: Incentives to promote mergers & acquisitions

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 6: Strategic Investor and digitalisation of the Cyprus Stock Exchange

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 1: Integrated Information system for the Registrar of Companies and Official Receiver

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation	X		
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. This measure involves mainly ICT equipment. Cross-cutting requirements of Table 1 are sufficient to ensure compliance with DNSH about this environmental objective.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. This measure involves mainly ICT equipment. Cross-cutting requirements of Table 1 are sufficient to ensure compliance with DNSH about this environmental objective.
The circular economy, including waste prevention and recycling		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. Cross-cutting requirements of Table 1 about ICT equipment etc. are sufficient to ensure compliance with DNSH about this environmental objective.
Pollution prevention and control to air, water or land		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. Cross-cutting requirements of Table 1 are sufficient to ensure compliance with DNSH about this environmental objective.
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. This measure involves mainly ICT equipment. Cross-cutting requirements can ensure sufficient protection of biodiversity and ecosystems.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>Climate change mitigation:</i> Is the measure expected to lead to significant GHG emissions?</p>	<p align="center">X</p>	<p>The measure is not expected to lead to significant GHG emissions as it involves purchase, installation and operation of digital equipment, for which all cross-cutting requirements listed in Table 1 apply.</p> <p>As the measure also includes the installation and operation of data centres, in addition to cross-cutting requirements, best practices will be implemented, such as the "expected practices" included in the most recent version of the European Code of Conduct on Data Centre Energy Efficiency, or in CEN-CENELEC document CLC TR50600-99-1 "Data centre facilities and infrastructures - Part 99-1: Recommended practices for energy management".</p> <p>For this purpose, specifications on energy efficiency will be requested for any data centre equipment to be procured in this measure.</p>

Investment 2: Creation of a Regulatory Sandbox to enable FinTech

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle.</p> <p>The measure includes no infrastructure investments or construction work, and no SEA/EIA is needed for their implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 3: Consulting services for SMEs

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle.</p> <p>The measure includes no infrastructure investments or construction work, and no SEA/EIA is needed for their implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 4: Scheme for the digital upgrade of enterprises

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle.</p> <p>The measure includes no infrastructure investments or construction work, and no SEA/EIA is needed for their implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 5: Support the extroversion and the openness of Cypriot firms

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle.</p> <p>The measure includes no infrastructure investments or construction work, and no SEA/EIA is needed for their implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 6: State funded equity fund

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation	X		
Climate change adaptation	X		
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, and no impacts on marine resources are foreseen. Cross-cutting requirement listed in Table 1 of this assessment can ensure DNSH compliance of the measure for this environmental objective.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. The investments that may be funded do not concern installations located in or near biodiversity-sensitive areas. If there are going to be disputed cases, the cross-cutting requirements listed in Table 1 are sufficient to ensure compliance with the DNSH principle for this objective.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<i>Climate change mitigation</i> : Is the measure expected to lead to significant GHG emissions?	X	<p>The measure is not expected to lead to significant GHG emissions because:</p> <ul style="list-style-type: none"> – The economic activities that may be supported through this fund are not dedicated to extraction or manufacture of fossil fuels. To the extent that the activities may address storage or transport of fossil fuels, they will improve the energy efficiency or waste management of these activities, and hence will certainly not increase the associated GHG emissions. – If some construction works are involved, these will be limited, will comply with cross-cutting requirements of Table 1, and will not be associated with significant amounts of GHG emissions. – In line with the cross-cutting requirements listed in Table 1, which involve minimum energy performance standards for buildings, vehicles, and equipment, any supported investments through this fund have the potential to reduce energy use and increase energy efficiency, leading to a substantial improvement in energy performance of the businesses concerned, and significantly reduce GHG emissions. As such, they will contribute to the national target of energy efficiency increase per year, set out according to the Energy Efficiency Directive (2012/27/EU), the decarbonisation and energy efficiency related objectives of the National Energy and Climate Plan, and the Nationally Determined Contributions to the Paris Climate Agreement. – In order to not hamper the deployment of further low-carbon alternatives if available, climate change mitigation will be reinforced by reform 1 of component 2.1 that will lead, among others, to carbon taxation of fossil fuels, which will accelerate the shift to low- or zero-carbon energy sources in any investments foreseen to be supported in this measure.
<i>Climate change adaptation</i> : Is the measure expected to lead to an increased adverse impact of the current climate and the expected future climate, on the measure itself or on people, nature or assets?	X	<p>The physical climate risks that could be material to these measures were assessed taking into account the current and future climate of Cyprus, which demonstrated that buildings and businesses in the targeted climate zones will be increasingly exposed to heatwaves. The measure could involve support for modernisation and innovation activities in production processes, equipment etc., hence – taking also into account the cross-cutting requirements in Table 1 of this assessment – there is no evidence of negative direct and primary indirect effects of the measures across their life-cycle on this environmental objective.</p>
<i>The circular economy, including waste prevention and recycling</i> : Is the measure expected to: (i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>If applicable in any activity supported by this measure, require the economic operators carrying out the investments to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the</p>

Questions	No	Substantive justification
<p>incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>		<p>construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>If applicable, the measures will include technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability. In particular, operators will limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol. Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p> <p>To the extent that the measures to be supported can include purchase of new zero-emission company vehicles, measures are in place to manage waste both in the use phase (maintenance) and the end-of-life of the vehicle fleet, including through reuse and recycling of batteries and electronics (in particular critical raw materials therein), in accordance with the waste hierarchy. Production impacts are factored in, and the scheme will not encourage the premature scrapping of serviceable vehicles. In particular, the scheme requires that any scrapped vehicle is processed by an Authorised Treatment Facility (ATF) according to the end-of-life vehicles directive (2000/53/EC) as proven by a certificate required to take part in the scheme.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is expected to lead to a decrease in the emissions of pollutants into air and no increase in emissions into water or land because:</p> <ul style="list-style-type: none"> – Any replacement of old equipment to be supported through this measure will lead to significant reductions of direct emissions to air and a subsequent improvement in public health, in areas where the EU air quality standards set by Directive 2008/50/EU are exceeded or likely to be exceeded. – Motor vehicles, if to be purchased in the frame of these support measures, will be of the best available environmental performance as described in the cross-cutting requirements of Table 1. – The operators carrying out the investments are required to ensure that building components and materials used do not contain substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the investments are required to ensure that building components and materials used that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than

Questions	No	Substantive justification
		<p>0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method.</p> <ul style="list-style-type: none"> – Measures will be taken to reduce noise, dust and pollutant emissions during any construction/renovations works that may be supported through this measure.

Investment 7: Loan subsidization for new business loans

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation	X		
Climate change adaptation	X		
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, and no impacts on marine resources are foreseen. Cross-cutting requirement listed in Table 1 of this assessment can ensure DNSH compliance of the measure for this environmental objective.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measures has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. The investments that may be supported do not concern installations located in or near biodiversity-sensitive areas. If there are going to be disputed cases, the cross-cutting requirements listed in Table 1 are sufficient to ensure compliance with the DNSH principle for this objective.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<i>Climate change mitigation</i> : Is the measure expected to lead to significant GHG emissions?	X	<p>The measure is not expected to lead to significant GHG emissions because:</p> <ul style="list-style-type: none"> – The economic activities that may be supported are not dedicated to extraction or manufacture of fossil fuels. To the extent that the activities may address storage or transport of fossil fuels, they will improve the energy efficiency or waste management of these activities, and hence will certainly not increase the associated GHG emissions. – If some construction works are involved, these will be limited, will comply with cross-cutting requirements of Table 1, and will not be associated with significant amounts of GHG emissions. – In line with the cross-cutting requirements listed in Table 1, which involve minimum energy performance standards for buildings, vehicles, and equipment, any supported investments through this subsidisation scheme have the potential to reduce energy use and increase energy efficiency, leading to a substantial improvement in energy performance of the businesses concerned, and significantly reduce GHG emissions. As such, they will contribute to the national target of energy efficiency increase per year, set out according to the Energy Efficiency Directive (2012/27/EU), the decarbonisation and energy efficiency related objectives of the National Energy and Climate Plan, and the Nationally Determined Contributions to the Paris Climate Agreement. – In order to not hamper the deployment of further low-carbon alternatives if available, climate change mitigation will be reinforced by reform 1 of component 2.1 that will lead, among others, to carbon taxation of fossil fuels, which will accelerate the shift to low- or zero-carbon energy sources in any investments foreseen to be supported in this measure.
<i>Climate change adaptation</i> : Is the measure expected to lead to an increased adverse impact of the current climate and the expected future climate, on the measure itself or on people, nature or assets?	X	<p>The physical climate risks that could be material to these measures were assessed taking into account the current and future climate of Cyprus, which demonstrated that buildings and businesses in the targeted climate zones will be increasingly exposed to heatwaves. The measure could involve support for modernisation and innovation activities in production processes, equipment etc., hence – taking also into account the cross-cutting requirements in Table 1 of this assessment – there is no evidence of negative direct and primary indirect effects of the measures across their life-cycle on this environmental objective.</p>
<i>The circular economy, including waste prevention and recycling</i> : Is the measure expected to: (i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>If applicable in any activity supported by this measure, require the economic operators carrying out the investments to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the</p>

Questions	No	Substantive justification
<p>incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>		<p>construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>If applicable, the measures will include technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability. In particular, operators will limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol. Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p> <p>To the extent that the measures to be supported can include purchase of new zero-emission company vehicles, measures are in place to manage waste both in the use phase (maintenance) and the end-of-life of the vehicle fleet, including through reuse and recycling of batteries and electronics (in particular critical raw materials therein), in accordance with the waste hierarchy. Production impacts are factored in, and the scheme will not encourage the premature scrapping of serviceable vehicles. In particular, the scheme requires that any scrapped vehicle is processed by an Authorised Treatment Facility (ATF) according to the end-of-life vehicles directive (2000/53/EC) as proven by a certificate required to take part in the scheme.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is expected to lead to a decrease in the emissions of pollutants into air and no increase in emissions into water or land because:</p> <ul style="list-style-type: none"> – Any replacement of old equipment to be supported through this measure will lead to significant reductions of direct emissions to air and a subsequent improvement in public health, in areas where the EU air quality standards set by Directive 2008/50/EU are exceeded or likely to be exceeded. – Motor vehicles, if to be purchased in the frame of these support measures, will be of the best available environmental performance as described in the cross-cutting requirements of Table 1. – The operators carrying out the investments are required to ensure that building components and materials used do not contain substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the investments are required to ensure that building components and materials used that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than

Questions	No	Substantive justification
		<p>0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method.</p> <ul style="list-style-type: none"> – Measures will be taken to reduce noise, dust and pollutant emissions during any construction/renovations works that may be supported through this measure.

Component 3.4: Public and Local Administration Reform, Judicial Reform and Anti-corruption Reform

Reform 1: Enhance the administrative capacity and improve the functioning of public administration for better policy making and implementation

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 2: Regulate flexible working arrangements in the public sector

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 3: Introduce new framework for evaluation and selection process for filling public service vacancies and new regulations for the evaluation of employees' performance

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 4: Strengthen administrative capacity and transparency through the professionalization of public procurement and further digitalization of its process

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 5: Enhancement of the capacity of the Law Office

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 6: New legal framework for Local Authorities and relevant support measures

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 7: Urban land consolidation

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 8: Efficiency and Functionality of Justice

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 9: Digital transformation of courts

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle.</p> <p>The measure includes no significant infrastructure investments or construction work, and no SEA/EIA is needed for their implementation.</p> <p>As regards equipment to be procured for the digital transformation of courts and any minor reconstruction work that the digital transformation will require, cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 10: Setting Up Anticorruption Agency (will include Training Awareness Campaign)

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 1: Rationalisation of the shift system through the implementation of a Roster Planning System

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle.</p> <p>The measure includes no infrastructure investments or construction work, and no SEA/EIA is needed for their implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 2: Digitalisation of the law-making process

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle.</p> <p>The measure includes no infrastructure investments or construction work, and no SEA/EIA is needed for their implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 3: Economic Policy Modelling Hub

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle. The measure includes no infrastructure investments or construction work, and no SEA/EIA is needed for their implementation. Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 4: Enhancing e-system for issuing building permits

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle. The measure includes no infrastructure investments or construction work, and no SEA/EIA is needed for their implementation. Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 5: Smart cities

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. The measure will not lead to substantial increases in GHG emissions as it involves construction of infrastructure and purchase of digital and other equipment. Cross-cutting requirements listed in Table 1 of this assessment can ensure that any construction will be energy efficient and also that energy efficient equipment will be used in the life cycle of this investment, with no significant impact on GHG emissions.
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Further to cross-cutting requirements listed in Table 1, the measure involves construction/extension/renovation of infrastructure and purchase of digital and other equipment, and hence will not increase the vulnerability of population, ecosystems or infrastructure to climate change.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as the measure will not involve any substantial water-consuming works and will not affect water bodies. Most of the activities take place in already developed areas (urban centres) where waterbodies are already managed accordingly. Further to cross-cutting requirements, all necessary measures to protect any waterbodies during construction works will be applied. There are no negative impacts on marine resources.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Cross-cutting requirements of Table 1 can ensure sufficient protection of biodiversity and ecosystems.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure requires the economic operators carrying out construction works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>The measure includes technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability.</p> <p>Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> – The operators carrying out the construction works are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the construction works are required to ensure that components and materials that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. – Measures will be taken to reduce noise, dust and pollutant emissions during construction works.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> <li>– The use of energy efficient equipment as mandated through cross-cutting requirements listed in Table 1 will make sure that there will be no significant emissions of pollutants during the life cycle of the investment.

Investment 6: Regeneration and Revitalization of Nicosia Inner City

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. The measure will not lead to substantial increases in GHG emissions as it involves construction/renovation of buildings and infrastructure and purchase of equipment. Cross-cutting requirements listed in Table 1 of this assessment can ensure that any construction will be energy efficient and also that energy efficient equipment will be used in the life cycle of this investment, with no significant impact on GHG emissions.
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Further to cross-cutting requirements listed in Table 1, the measure involves construction/extension/renovation of infrastructure and purchase of digital and other equipment, and hence will not increase the vulnerability of population, ecosystems or infrastructure to climate change.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as the measure will not involve any substantial water-consuming works and will not affect water bodies. The activities will take place in an already developed areas (the inner city of Nicosia) where waterbodies are already managed accordingly. Further to cross-cutting requirements, all necessary measures to protect any waterbodies during construction works will be applied. There are no negative impacts on marine resources.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. The activities will take place in an already developed areas (the inner city of Nicosia). In any case, cross-cutting requirements of Table 1 can ensure sufficient protection of biodiversity and ecosystems.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure requires the economic operators carrying out construction works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>The measure includes technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability.</p> <p>Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> – The operators carrying out the construction works are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the construction works are required to ensure that components and materials that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. – Measures will be taken to reduce noise, dust and pollutant emissions during construction works.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> <li>– The use of energy efficient equipment as mandated through cross-cutting requirements listed in Table 1 will make sure that there will be no significant emissions of pollutants during the life cycle of the investment.

Investment 7: Training of judges' court staff

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle.</p> <p>The measure includes no infrastructure investments or construction work, and no SEA/EIA is needed for their implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 8: Upgrading the infrastructure of Courts

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. The measure will not lead to substantial increases in GHG emissions as it involves construction of buildings and other infrastructure and purchase of digital and other equipment. Cross-cutting requirements listed in Table 1 of this assessment can ensure that buildings will be energy efficient and also that energy efficient equipment will be used in the life cycle of this investment, with no significant impact on GHG emissions.
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Further to cross-cutting requirements, the measure involves construction/extension/renovation of buildings and other infrastructure and purchase of equipment, and hence will not increase the vulnerability of population, ecosystems or infrastructure to climate change.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as the measure will not involve any substantial water-consuming works and will not affect water bodies. Most of the activities take place in already developed areas (urban centres) where waterbodies are already managed accordingly. Further to cross-cutting requirements, all necessary measures to protect any waterbodies during construction works will be applied. There are no negative impacts on marine resources.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Cross-cutting requirements of Table 1 can ensure sufficient protection of biodiversity and ecosystems.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure requires the economic operators carrying out construction works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>The measure includes technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability.</p> <p>Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> – The operators carrying out the construction works are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the construction works are required to ensure that components and materials that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. – Measures will be taken to reduce noise, dust and pollutant emissions during construction works.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> <li>– The use of energy efficient equipment as mandated through cross-cutting requirements listed in Table 1 will make sure that there will be no significant emissions of pollutants during the life cycle of the investment.

Investment 9: Aid Scheme for the private and public sector for certification with ISO 37000 (Anti Bribery)

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle. The measure includes no infrastructure investments or construction work, and no SEA/EIA is needed for their implementation. Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Component 3.5: Safeguarding Fiscal and Financial Stability

Reform 1: Completing the legal framework for Crisis Management for Credit Institutions

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 2: Framework and Action Plan for addressing NPLs

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 3: Strategy for addressing inadequacies of the property transaction system (title deeds)

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 4: New legal framework and system of exchange of data and credit

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 5: Action plan for the development of a liability monitoring register

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 6: Enhancement of the Insolvency Framework

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 7: Strategy for Combating Financial Illiteracy

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 8: Enhancing supervision of Insurance and Pension Funds

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 9: Improving tax collection and effectiveness of the Tax Department

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. The measure will not lead to substantial increases in GHG emissions as it involves construction/extension/renovation of buildings and other infrastructure and purchase of digital and other equipment. Cross-cutting requirements listed in Table 1 of this assessment can ensure that buildings will be energy efficient and also that energy efficient equipment will be used in the life cycle of this investment, with no significant impact on GHG emissions.
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Further to cross-cutting requirements of Table 1, the measure involves construction/extension/renovation of buildings and other infrastructure and purchase of digital and other equipment, and hence will not increase the vulnerability of population, ecosystems or infrastructure to climate change.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as the measure will not involve any substantial water-consuming works and will not affect water bodies. Most of the activities take place in already developed urban areas where waterbodies are already managed accordingly. Further to cross-cutting requirements shown in Table 1, all necessary measures to protect any waterbodies during construction works will be applied. There are no negative impacts on marine resources.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Cross-cutting requirements of Table 1 can ensure sufficient protection of biodiversity and ecosystems.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure requires the economic operators carrying out construction works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>The measure includes technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability.</p> <p>Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> – The operators carrying out the construction works are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the construction works are required to ensure that components and materials that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. – Measures will be taken to reduce noise, dust and pollutant emissions during construction works.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> <li>– The use of energy efficient equipment as mandated through cross-cutting requirements listed in Table 1 will make sure that there will be no significant emissions of pollutants during the life cycle of the investment.

Reform 10: Addressing Aggressive Tax Planning

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 1: Enhancement of the Supervisory Function of CYSEC

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle.</p> <p>The measure includes no infrastructure investments or construction work, and no SEA/EIA is needed for their implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 2: Modernisation of Customs and Electronic Payment System

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation	X		
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. This measure involves mainly ICT equipment. Cross-cutting requirements of Table 1 are sufficient to ensure compliance with DNSH about this environmental objective.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. This measure involves mainly ICT equipment. Cross-cutting requirements of Table 1 are sufficient to ensure compliance with DNSH about this environmental objective.
The circular economy, including waste prevention and recycling		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. Cross-cutting requirements of Table 1 about ICT equipment etc. are sufficient to ensure compliance with DNSH about this environmental objective.
Pollution prevention and control to air, water or land		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. Cross-cutting requirements of Table 1 are sufficient to ensure compliance with DNSH about this environmental objective.
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. This measure involves mainly ICT equipment. Cross-cutting requirements can ensure sufficient protection of biodiversity and ecosystems.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>Climate change mitigation:</i> Is the measure expected to lead to significant GHG emissions?</p>	<p align="center">X</p>	<p>The measure is not expected to lead to significant GHG emissions as it involves purchase, installation and operation of digital equipment, for which all cross-cutting requirements listed in Table 1 apply.</p> <p>As the measure also includes the installation and operation of data centres, in addition to cross-cutting requirements, best practices will be implemented, such as the "expected practices" included in the most recent version of the European Code of Conduct on Data Centre Energy Efficiency, or in CEN-CENELEC document CLC TR50600-99-1 "Data centre facilities and infrastructures - Part 99-1: Recommended practices for energy management".</p> <p>For this purpose, specifications on energy efficiency will be requested for any data centre equipment to be procured in this measure.</p>

Policy Axis 4: Towards a Digital Era

Component 4.1: Upgrade Infrastructure for Connectivity

Reform 1: Empower the National Regulatory Authority (OCECPR)

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 2: Empower the national Broadband Competence Office (DEC of the DMRIDP)

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects of the measure across its life cycle.</p> <p>The measure is a reform and includes no infrastructure investments or purchase of equipment, and no SEA/EIA is needed for its implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that the reform complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 1: Expansion of Very High Capacity Networks in underserved areas

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. The measure will not lead to substantial increases in GHG emissions as it involves construction of buildings and other infrastructure and purchase of digital and other equipment. Cross-cutting requirements of Table 1 of this assessment can ensure that buildings will be energy efficient and also that energy efficient equipment will be used in the life cycle of this investment, with no significant impact on GHG emissions.
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Further to cross-cutting requirements, the measure involves construction/extension/renovation of infrastructure and purchase of digital and other equipment, and hence will not increase the vulnerability of population, ecosystems or infrastructure to climate change.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as the measure will not involve any substantial water-consuming works and will not affect water bodies. Further to cross-cutting requirements listed in Table 1 of this assessment, all necessary measures to protect any waterbodies during construction works will be applied. There are no negative impacts on marine resources.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Cross-cutting requirements of Table 1 of this assessment can ensure sufficient protection of biodiversity and ecosystems.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure requires the economic operators carrying out construction works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>The measure includes technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability.</p> <p>Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> – The operators carrying out the construction works are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the construction works are required to ensure that components and materials that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. – Measures will be taken to reduce noise, dust and pollutant emissions during construction works.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> <li>– The use of energy efficient equipment as mandated through cross-cutting requirements listed in Table 1 will make sure that there will be no significant emissions of pollutants during the life cycle of the investment.
<p><i>The protection and restoration of biodiversity and ecosystems:</i> Is the measure expected to be:</p> <p>(i) significantly detrimental to the good condition and resilience of ecosystems; or (ii) detrimental to the conservation status of habitats and species, including those of Union interest?</p>	X	

Investment 2: Enhance building cabling to be “Gigabit-ready” and promote connectivity take-up

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if ‘No’ has been selected</i>
Climate change mitigation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. The measure will not lead to substantial increases in GHG emissions as it involves construction/renovation of buildings and other infrastructure and purchase of digital and other equipment. Cross-cutting requirements can ensure that buildings will be energy efficient and also that energy efficient equipment will be used in the life cycle of this investment, with no significant impact on GHG emissions.
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Further to cross-cutting requirements, the measure involves construction/ renovation of buildings and other infrastructure and purchase of digital and other equipment, and hence will not increase the vulnerability of population, ecosystems or infrastructure to climate change.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as the measure will not involve any substantial water-consuming works and will not affect water bodies. Further to cross-cutting requirements listed in Table 1 of this assessment, all necessary measures to protect any waterbodies during construction works will be applied. There are no negative impacts on marine resources.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Cross-cutting requirements of Table 1 of this assessment can ensure sufficient protection of biodiversity and ecosystems.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure requires the economic operators carrying out construction works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>The measure includes technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability.</p> <p>Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> – The operators carrying out the construction works are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the construction works are required to ensure that components and materials that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. – Measures will be taken to reduce noise, dust and pollutant emissions during construction works.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> <li>– The use of energy efficient equipment as mandated through cross-cutting requirements listed in Table 1 will make sure that there will be no significant emissions of pollutants during the life cycle of the investment.
<p><i>The protection and restoration of biodiversity and ecosystems:</i> Is the measure expected to be:</p> <p>(i) significantly detrimental to the good condition and resilience of ecosystems; or (ii) detrimental to the conservation status of habitats and species, including those of Union interest?</p>	X	

Investment 3: Submarine link to Greece

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	Justification if 'No' has been selected
Climate change mitigation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. The measure will not lead to substantial increases in GHG emissions as it involves construction of infrastructure and purchase/installation of digital and other equipment. Cross-cutting requirements can ensure that buildings will be energy efficient and also that energy efficient equipment will be used in the life cycle of this investment, with no significant impact on GHG emissions.
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Further to cross-cutting requirements, the measure involves construction/extension of infrastructure and purchase/installation of digital and other equipment, and hence will not increase the vulnerability of population, ecosystems or infrastructure to climate change.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as the measure will not involve any substantial water-consuming works and will not affect water bodies. Further to cross-cutting requirements, all necessary measures to protect any waterbodies during construction works will be applied. There are no negative impacts on marine resources.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Cross-cutting requirements can ensure sufficient protection of biodiversity and ecosystems.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure requires the economic operators carrying out construction works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>The measure includes technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability.</p> <p>Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> – The operators carrying out the construction works are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the construction works are required to ensure that components and materials that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. – Measures will be taken to reduce noise, dust and pollutant emissions during construction works.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> – The use of energy efficient equipment as mandated through cross-cutting requirements listed in Table 1 will make sure that there will be no significant emissions of pollutants during the life cycle of the investment.
<p><i>The protection and restoration of biodiversity and ecosystems:</i> Is the measure expected to be:</p> <p>(i) significantly detrimental to the good condition and resilience of ecosystems; or</p> <p>(ii) detrimental to the conservation status of habitats and species, including those of Union interest?</p>	X	

Component 4.2: Promote e-government

Reform 1: Digital Services Factory

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation	X		
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. This measure involves mainly ICT equipment. Cross-cutting requirements of Table 1 are sufficient to ensure compliance with DNSH about this environmental objective.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. This measure involves mainly ICT equipment. Cross-cutting requirements of Table 1 are sufficient to ensure compliance with DNSH about this environmental objective.
The circular economy, including waste prevention and recycling		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. Cross-cutting requirements of Table 1 about ICT equipment etc. are sufficient to ensure compliance with DNSH about this environmental objective.
Pollution prevention and control to air, water or land		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. Cross-cutting requirements of Table 1 are sufficient to ensure compliance with DNSH about this environmental objective.
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. This measure involves mainly ICT equipment. Cross-cutting requirements can ensure sufficient protection of biodiversity and ecosystems.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>Climate change mitigation:</i> Is the measure expected to lead to significant GHG emissions?</p>	<p align="center">X</p>	<p>The measure is not expected to lead to significant GHG emissions as it involves purchase, installation and operation of digital equipment, for which all cross-cutting requirements listed in Table 1 apply.</p> <p>As the measure also includes the installation and operation of data centres, in addition to cross-cutting requirements, best practices will be implemented, such as the "expected practices" included in the most recent version of the European Code of Conduct on Data Centre Energy Efficiency, or in CEN-CENELEC document CLC TR50600-99-1 "Data centre facilities and infrastructures - Part 99-1: Recommended practices for energy management".</p> <p>For this purpose, specifications on energy efficiency will be requested for any data centre equipment to be procured in this measure.</p>

Reform 2: Implementation of Government Cloud-G Cloud

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation	X		
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. This measure involves mainly ICT equipment. Cross-cutting requirements of Table 1 are sufficient to ensure compliance with DNSH about this environmental objective.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. This measure involves mainly ICT equipment. Cross-cutting requirements of Table 1 are sufficient to ensure compliance with DNSH about this environmental objective.
The circular economy, including waste prevention and recycling		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. Cross-cutting requirements of Table 1 about ICT equipment etc. are sufficient to ensure compliance with DNSH about this environmental objective.
Pollution prevention and control to air, water or land		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. Cross-cutting requirements of Table 1 are sufficient to ensure compliance with DNSH about this environmental objective.
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. This measure involves mainly ICT equipment. Cross-cutting requirements can ensure sufficient protection of biodiversity and ecosystems.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>Climate change mitigation:</i> Is the measure expected to lead to significant GHG emissions?</p>	<p align="center">X</p>	<p>The measure is not expected to lead to significant GHG emissions as it involves purchase, installation and operation of digital equipment, for which all cross-cutting requirements listed in Table 1 apply.</p> <p>As the measure also includes the installation and operation of data centres, in addition to cross-cutting requirements, best practices will be implemented, such as the "expected practices" included in the most recent version of the European Code of Conduct on Data Centre Energy Efficiency, or in CEN-CENELEC document CLC TR50600-99-1 "Data centre facilities and infrastructures - Part 99-1: Recommended practices for energy management".</p> <p>For this purpose, specifications on energy efficiency will be requested for any data centre equipment to be procured in this measure.</p>

Reform 3: Police Procedures Digitalization Digipol

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle. The measure includes no significant infrastructure investments or construction work, and no SEA/EIA is needed for their implementation. Cross-cutting requirements about infrastructure work and equipment purchase listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 4: Setting up the Beneficial Ownership Registry in accordance with Directive (EU) 2015/849

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle. The measure includes no significant infrastructure investments or construction work, and no SEA/EIA is needed for their implementation. Cross-cutting requirements about infrastructure work and equipment purchase listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 1: Digitalisation in various Central Government Ministries - Services

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle.</p> <p>The measure includes no significant infrastructure investments or construction work, and no SEA/EIA is needed for their implementation.</p> <p>Cross-cutting requirements about infrastructure work and equipment purchase listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 2: Digitalisation of the Cyprus Ports Authority

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle.</p> <p>The measure includes no significant infrastructure investments or construction work, and no SEA/EIA is needed for their implementation.</p> <p>Cross-cutting requirements about infrastructure work and equipment purchase listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Policy Axis 5: Labour Market, Education and Human Capital

Component 5.1: Educational System Modernization, Upskilling and Retraining

Reform 1: Addressing skills mismatch between education and labour market (Secondary and Higher Education)

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle. The measure includes no significant infrastructure investments or construction work, and no SEA/EIA is needed for their implementation. Cross-cutting requirements about infrastructure work and equipment purchase listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 2: A new teacher and evaluation system

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle. The measure includes no significant infrastructure investments or construction work, and no SEA/EIA is needed for their implementation. Cross-cutting requirements about infrastructure work and equipment purchase listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 3: Extension of free compulsory pre-primary education from the age of four

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle. The measure includes no significant infrastructure investments or construction work, and no SEA/EIA is needed for their implementation. Cross-cutting requirements about infrastructure work and equipment purchase listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 4: Digital transformation of school units with the aim of enhancing skills and skills related to STEM education

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle.</p> <p>The measure includes no significant infrastructure investments or construction work, and no SEA/EIA is needed for their implementation.</p> <p>Cross-cutting requirements about infrastructure work and equipment purchase listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 5: E-Skills Action Plan – Implementation of specific actions

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle.</p> <p>The measure includes no significant infrastructure investments or construction work, and no SEA/EIA is needed for their implementation.</p> <p>Cross-cutting requirements about infrastructure work and equipment purchase listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 1: Construction of 2 Model Technical Schools

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. The measure will not lead to substantial increases in GHG emissions as it involves construction of school buildings and other infrastructure and purchase of equipment. Cross-cutting requirements listed in Table 1 of this assessment can ensure that buildings will be energy efficient and also that energy efficient equipment will be used in the life cycle of this investment, with no significant impact on GHG emissions.
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Further to cross-cutting requirements shown in Table 1, the measure involves construction of school buildings and other infrastructure and purchase of digital and other equipment, and hence will not increase the vulnerability of population, ecosystems or infrastructure to climate change.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as the measure will not involve any substantial water-consuming works and will not affect water bodies. Most of the activities take place in already developed areas where waterbodies are already managed accordingly. Further to cross-cutting requirements of Table 1, all necessary measures to protect any waterbodies during construction works will be applied. There are no negative impacts on marine resources.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Cross-cutting requirements of Table 1 can ensure sufficient protection of biodiversity and ecosystems.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure requires the economic operators carrying out construction works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>The measure includes technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability.</p> <p>Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> – The operators carrying out the construction works are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the construction works are required to ensure that components and materials that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. – Measures will be taken to reduce noise, dust and pollutant emissions during construction works.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> <li>– The use of energy efficient equipment as mandated through cross-cutting requirements listed in Table 1 will make sure that there will be no significant emissions of pollutants during the life cycle of the investment.

Investment 2: Skilling, Reskilling and Upskilling

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle.</p> <p>The measure includes no significant infrastructure investments or construction work, and no SEA/EIA is needed for their implementation.</p> <p>Cross-cutting requirements about infrastructure work and equipment purchase listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Component 5.2: Labour Market

Reform 1: Reform of the Social Insurance System and Restructuring of the Social Insurance Services

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle. The measure includes no significant infrastructure investments or construction work, and no SEA/EIA is needed for their implementation. Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Reform 2: Promotion of flexible forms of employment including teleworking

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	<p>The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle.</p> <p>The measure includes no significant infrastructure investments or construction work, and no SEA/EIA is needed for their implementation.</p> <p>Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.</p>
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 1: Improving the Effectiveness of the Department of Labour and Public Employment Services

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The measure has no or an insignificant foreseeable impact on any one of the six environmental objectives related to the direct and primary indirect effects across its life cycle. The measure includes no significant infrastructure investments or construction work, and no SEA/EIA is needed for their implementation. Cross-cutting requirements listed in Table 1 will be implemented and are considered to be sufficient for ensuring that this investment complies with the DNSH principle and no further substantive assessment is needed.
Climate change adaptation		X	
The sustainable use and protection of water and marine resources		X	
The circular economy, including waste prevention and recycling		X	
Pollution prevention and control to air, water or land		X	
The protection and restoration of biodiversity and ecosystems		X	

Investment 2: Establishment of Multifunctional Centres and enhancement of the availability and affordability of Child Centres

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. The measure will not lead to substantial increases in GHG emissions as it involves construction/extension/renovation of buildings and other infrastructure and purchase of equipment. Cross-cutting requirements listed in Table 1 of this assessment can ensure that buildings will be energy efficient and also that energy efficient equipment will be used in the life cycle of this investment, with no significant impact on GHG emissions.
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Further to cross-cutting requirements of Table 1, the measure involves construction/extension/renovation of buildings and other infrastructure and purchase of equipment, and hence will not increase the vulnerability of population, ecosystems or infrastructure to climate change.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as the measure will not involve any substantial water-consuming works and will not affect water bodies. Most of the activities take place in already developed areas where waterbodies are already managed accordingly. Further to cross-cutting requirements shown in Table 1, all necessary measures to protect any waterbodies during construction works will be applied. There are no negative impacts on marine resources.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Cross-cutting requirements of Table 1 can ensure sufficient protection of biodiversity and ecosystems.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure requires the economic operators carrying out construction works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>The measure includes technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability.</p> <p>Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> – The operators carrying out the construction works are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the construction works are required to ensure that components and materials that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. – Measures will be taken to reduce noise, dust and pollutant emissions during construction works.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> <li>– The use of energy efficient equipment as mandated through cross-cutting requirements listed in Table 1 will make sure that there will be no significant emissions of pollutants during the life cycle of the investment.

Investment 3: Establishment of Home structures for children, adolescent with conduct disorders and persons with disabilities and long-term care for the elderly

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. The measure will not lead to substantial increases in GHG emissions as it involves construction/extension/renovation of buildings and other infrastructure and purchase of equipment. Cross-cutting requirements of Table 1 can ensure that buildings will be energy efficient and also that energy efficient equipment will be used in the life cycle of this investment, with no significant impact on GHG emissions.
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Further to cross-cutting requirements shown in Table 1, the measure involves construction/extension/renovation of buildings and other infrastructure and purchase of equipment, and hence will not increase the vulnerability of population, ecosystems or infrastructure to climate change.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as the measure will not involve any substantial water-consuming works and will not affect water bodies. Most of the activities take place in already developed areas where waterbodies are already managed accordingly. Further to cross-cutting requirements listed in Table 1, all necessary measures to protect any waterbodies during construction works will be applied. There are no negative impacts on marine resources.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Cross-cutting requirements of Table 1 can ensure sufficient protection of biodiversity and ecosystems.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure requires the economic operators carrying out construction works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>The measure includes technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability.</p> <p>Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> – The operators carrying out the construction works are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the construction works are required to ensure that components and materials that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. – Measures will be taken to reduce noise, dust and pollutant emissions during construction works.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> – The use of energy efficient equipment as mandated through cross-cutting requirements listed in Table 1 will make sure that there will be no significant emissions of pollutants during the life cycle of the investment.
<p><i>The protection and restoration of biodiversity and ecosystems:</i> Is the measure expected to be:</p> <p>(i) significantly detrimental to the good condition and resilience of ecosystems; or</p> <p>(ii) detrimental to the conservation status of habitats and species, including those of Union interest?</p>	X	

Investment 4: Child Centres in Municipalities

The competent authorities (i.e. the Municipalities of Agios Athanasios, Ayia Napa, Paralimni and Yermasoyia) must register the building of their respective Child Centre and its operation in the EMAS Register under the Eco-Management and Audit Scheme according to Regulation 1221/2009/EC and Law 10(I)/2012.

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. The measure will not lead to substantial increases in GHG emissions as it involves construction/extension/renovation of buildings and other infrastructure and purchase of digital and other equipment. Cross-cutting requirements of Table 1 of this assessment can ensure that buildings will be energy efficient and also that energy efficient equipment will be used in the life cycle of this investment, with no significant impact on GHG emissions.
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Further to cross-cutting requirements listed in Table 1, the measure involves construction/extension/renovation of buildings and other infrastructure and purchase of digital and other equipment, and hence will not increase the vulnerability of population, ecosystems or infrastructure to climate change.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as the measure will not involve any substantial water-consuming works and will not affect water bodies. Most of the activities take place in already developed areas where waterbodies are already managed accordingly. Further to cross-cutting requirements shown in Table 1, all necessary measures to protect any waterbodies during construction works will be applied. There are no negative impacts on marine resources.

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Cross-cutting requirements of Table 1 can ensure sufficient protection of biodiversity and ecosystems.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure requires the economic operators carrying out construction works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>The measure includes technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability.</p> <p>Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> – The operators carrying out the construction works are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the construction works are required to ensure that components and materials that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. – Measures will be taken to reduce noise, dust and pollutant emissions during construction works.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> <li>– The use of energy efficient equipment as mandated through cross-cutting requirements listed in Table 1 will make sure that there will be no significant emissions of pollutants during the life cycle of the investment.

Investment 5: Apostolou Louka Special Needs School & Red Cross Recovery Special Needs School

Part 1 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
Climate change mitigation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. The measure will not lead to substantial increases in GHG emissions as it involves construction/extension/renovation of buildings and other infrastructure and purchase of digital and other equipment. Cross-cutting requirements of Table 1 of this assessment can ensure that buildings will be energy efficient and also that energy efficient equipment will be used in the life cycle of this investment, with no significant impact on GHG emissions.
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Further to cross-cutting requirements listed in Table 1, the measure involves construction/extension/renovation of buildings and other infrastructure and purchase of digital and other equipment, and hence will not increase the vulnerability of population, ecosystems or infrastructure to climate change.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across their life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as the measure will not involve any substantial water-consuming works and will not affect water bodies. Most of the activities take place in already developed areas where waterbodies are already managed accordingly. Further to cross-cutting requirements shown in Table 1, all necessary measures to protect any waterbodies during construction works will be applied. There are no negative impacts on marine resources.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		

<i>Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure</i>	Yes	No	<i>Justification if 'No' has been selected</i>
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across its life cycle. Cross-cutting requirements of Table 1 can ensure sufficient protection of biodiversity and ecosystems.

Part 2 of the DNSH checklist, in line with the Commission Notice C(2021) 1054 final

Questions	No	Substantive justification
<p><i>The circular economy, including waste prevention and recycling:</i> Is the measure expected to:</p> <p>(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or</p> <p>(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or</p> <p>(iii) cause significant and long-term harm to the environment in respect to the circular economy?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure requires the economic operators carrying out construction works to ensure that at least 70% (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.</p> <p>The measure includes technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability.</p> <p>Building designs and construction techniques will support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p>
<p><i>Pollution prevention and control to air, water or land:</i> Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?</p>	X	<p>As mentioned in the description of the measure, the requirement for adherence to the DNSH principle as detailed here will be included in all procurement procedures.</p> <p>The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because:</p> <ul style="list-style-type: none"> – The operators carrying out the construction works are required to ensure that components and materials used do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006. – The operators carrying out the construction works are required to ensure that components and materials that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. – Measures will be taken to reduce noise, dust and pollutant emissions during construction works.

Questions	No	Substantive justification
		<ul style="list-style-type: none"> <li>– The use of energy efficient equipment as mandated through cross-cutting requirements listed in Table 1 will make sure that there will be no significant emissions of pollutants during the life cycle of the investment.

ANNEX 4

Management and Control System (Greek)

ANNEX 4: Management and Control System (Greek)

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ΑΠ	Άξονας Προτεραιότητας
ΓΔ ΕΠΣΑ	Γενική Διεύθυνση Ευρωπαϊκών Προγραμμάτων, Συντονισμού και Ανάπτυξης
ΓΛτΔ	Γενικό Λογιστήριο της Δημοκρατίας
ΔΕΠ	Διεύθυνση Επαληθεύσεων και Πιστοποίησης του ΓΛτΔ
ΔΣ	Δημόσια Σύμβαση
ΕΔΕΤ	Ευρωπαϊκά Διαρθρωτικά και Επενδυτικά Ταμεία
ΕΕ	Ευρωπαϊκή Επιτροπή
ΕΕΠΠ	Έντυπο Ενημέρωσης Προόδου Παρέμβασης
ΕΥ	Ελεγκτική Υπηρεσία
ΚΔΠ	Κανονιστική Διοικητική Πράξη
ΚΕ	Κρατικές Ενισχύσεις
ΚΚ	Κεντρική Κυβέρνηση
ΜΑΑ	Μηχανισμός Ανάκαμψης και Ανθεκτικότητας
ΔΧΔ	Διευθύνσεις Χρηματοοικονομικής Διαχείρισης
ΠΣΠ	Πληροφοριακό Σύστημα Παρακολούθησης του ΣΑΑ
ΣΑ	Συντονιστική Αρχή
ΣΑΑ	Σχέδιο Ανάκαμψης και Ανθεκτικότητας
ΣΠΕ	Σύστημα Παρακολούθησης και Ελέγχου (το παρόν έγγραφο)
ΣΕΛΚ	Σύνδεσμος Εγκεκριμένων Λογιστών Κύπρου
ΣΧ	Σχέδιο Χορηγιών
ΔΠΠ	Δέσμευση Προγραμματισμού Παρέμβασης
ΥΕΕ	Υπηρεσία Εσωτερικού Ελέγχου
ΥΜΕΕ	Υπουργείο Μεταφορών Επικοινωνιών και Έργων
ΦΠ	Φορέας Παρακολούθησης
ΦΥ	Φορέας Υλοποίησης
FIMAS	Ολοκληρωμένο Σύστημα Διοικητικής και Οικονομικής Πληροφόρησης

Γλωσσάριο (για την ελληνική έκδοση)

Άξονας Προτεραιότητας	Priority Axis
Αρμόδιος Λειτουργός	Responsible Officer
Αρχή Δημοσίων Συμβάσεων	Public Procurement Authority
Γενικό Λογιστήριο της Δημοκρατίας (ΓΛΤΔ)	Treasury of the Republic of Cyprus
Γενικός Ελεγκτής	Auditor General
Γραμματειακό Προσωπικό Λογιστηρίου	Accounting Support Staff
Δημόσια Σύμβαση (ΔΣ)	Public Procurement
Δημοσιονομικός Κανονισμός	Financial Regulation
Διαδρομή ελέγχου	Audit trail
Διευθύνσεις Χρηματοοικονομικής Διαχείρισης (ΔΧΔ)	Financial Management Directorates (FMDs)
Διεύθυνση Επαληθεύσεων και Πιστοποίησης του Γενικού Λογιστηρίου της Δημοκρατίας (ΔΕΠ)	Verifications and Certification Directorate of the Treasury of the Republic of Cyprus (VCD)
Εθνικός Συντονιστικός Φορέας για την Καταπολέμηση της Απάτης κατά των συμφερόντων της Ευρωπαϊκής Ένωσης	Anti-Fraud Coordination Service (AFCOS)
Εθνικός Συντονιστικός φορέας για τις επαληθεύσεις και ελέγχους για την εφαρμογή του ΣΑΑ	the national audit and control coordinator for the implementation of the RRP
Ελεγκτική Υπηρεσία (ΕΥ)	Audit Office
Ελέγχων Λειτουργός	Controlling Officer
Ευρωπαϊκό Ελεγκτικό Συνέδριο	European Court of Auditors
έλεγχος	control
εξωτερικός έλεγχος	external audit
επαλήθευση	verification
Επιχειρησιακή Ρύθμιση	Operational Arrangement
εσωτερικός έλεγχος	internal audit
επιμερισμένη διαχείριση	shared management
Επιτροπή Παρακολούθησης	Monitoring Committee
Ευρωπαϊκά Διαρθρωτικά και Επενδυτικά Ταμεία (ΕΔΕΤ)	European Structural and Investment Funds (ESIF)
Ευρωπαϊκή Εισαγγελία	European Public Prosecutor's Office (EPPO)
Ευρωπαϊκή Υπηρεσία Καταπολέμησης της Απάτης	European Anti-Fraud Office (OLAF)

Κανονιστική Διοικητική Πράξη (ΚΔΠ)	Regulatory Administrative Act
Κρατική Ενίσχυση	State Aid
Λογιστικό Προσωπικό	Accounting Staff
Μηχανισμός Ανάκαμψης και Ανθεκτικότητας (ΜΑΑ)	Recovery and Resilience Facility (RRF)
Ολοκληρωμένο Σύστημα Διοικητικής και Οικονομικής Πληροφόρησης (FIMAS)	Financial Information and Management Accounting System
παρέμβαση	measure
πεδίο παρέμβασης	intervention field
πιστοποίηση	certification
Σύνδεσμος Εγκεκριμένων Λογιστών Κύπρου (ΣΕΛΚ)	Institute of Certified Public Accountants of Cyprus (ICPAC)
Συντονιστής Κοστολόγησης	Costing Coordinator
Συντονιστική Αρχή (ΣΑ)	Coordinator
Σύστημα Παρακολούθησης και Ελέγχου (ΣΠΕ)	Monitoring and Control System (MCS)
Σχέδιο Ανάκαμψης και Ανθεκτικότητας (ΣΑΑ)	Recovery and Resilience Plan (RRP)
Σχέδιο Χορηγιών (ΣΧ)	Grant/Aid Scheme
πραγματικός δικαιούχος	ultimate beneficial owner (UBO)
τελικός αποδέκτης χρηματοδότησης / ενίσχυσης	final recipient
Υπηρεσία Εσωτερικού Ελέγχου (ΥΕΕ)	Internal Audit Service
Υπουργείο Μεταφορών Επικοινωνιών και Έργων	Ministry of Transport Communications and Works
Φορέας Παρακολούθησης (ΦΠ)	Monitoring Body/Unit
Φορέας Υλοποίησης (ΦΥ)	Project Promoter
χρηστή οικονομική διαχείριση	sound financial management

1 Εισαγωγή

1.1 Σκοπός του Εγγράφου

Το παρόν έγγραφο αποτελεί την περιγραφή του Συστήματος Παρακολούθησης και Ελέγχου (ΣΠΕ) της εφαρμογής του Μηχανισμού Ανάκαμψης και Ανθεκτικότητας (ΜΑΑ) στην Κυπριακή Δημοκρατία μέσω της υλοποίησης του Σχεδίου Ανάκαμψης και Ανθεκτικότητας (ΣΑΑ) της χώρας για την περίοδο 2021-2026.

Το ΣΠΕ αποτελεί εσωτερικό σύστημα της Κυπριακής Δημοκρατίας και καταρτίστηκε σύμφωνα με τις απαιτήσεις του Κανονισμού (ΕΕ) 2021/241 του Ευρωπαϊκού Κοινοβουλίου και του Συμβουλίου της 12ης Φεβρουαρίου 2021 «για τη θέσπιση Μηχανισμού Ανάκαμψης και Ανθεκτικότητας» και των Εγγράφων Καθοδήγησης της Ευρωπαϊκής Επιτροπής (ΕΕ) προς τα κράτη-μέλη για τον σχεδιασμό και την υλοποίηση των εθνικών ΣΑΑ¹, ενώ ευθυγραμμίζεται με τις διατάξεις του Κανονισμού (ΕΕ, Ευρατόμ) 2018/1046 του Ευρωπαϊκού Κοινοβουλίου και του Συμβουλίου της 18ης Ιουλίου 2018 «σχετικά με τους δημοσιονομικούς κανόνες που εφαρμόζονται στον γενικό προϋπολογισμό της Ένωσης» (Δημοσιονομικού Κανονισμού).

Σκοπός του ΣΠΕ είναι η θέσπιση, σε εθνικό επίπεδο:

α) των απαιτούμενων διαδικασιών και

β) των αρμόδιων φορέων

που διασφαλίζουν τη χρηστή δημοσιονομική διαχείριση και τη διενέργεια των απαραίτητων ελέγχων για την τήρηση του εφαρμοστέου ενωσιακού και εθνικού δικαίου που σχετίζεται με την προστασία του οικονομικού συμφέροντος της Ένωσης καθ' όλη τη διάρκεια της υλοποίησης των παρεμβάσεων που χρηματοδοτούνται από τον ΜΑΑ.

Ειδικό στόχο του ΣΠΕ και κύριο γνώμονα για τον σχεδιασμό του συνεκτικού δικτύου διαδικασιών που περιλαμβάνει, αποτελεί η **πρόληψη, ανίχνευση** και **αντιμετώπιση** κινδύνων απάτης, διαφθοράς και σύγκρουσης συμφερόντων, καθώς και η αποφυγή διπλής χρηματοδότησης από τον ΜΑΑ και άλλα υλοποιούμενα προγράμματα της Ένωσης.

Για την παρακολούθηση και τον έλεγχο της εφαρμογής του ΜΑΑ στην Κύπρο αξιοποιήθηκαν κατά το δυνατόν:

- Υφιστάμενες διαδικασίες παρακολούθησης και ελέγχου που εφαρμόζονται στο πλαίσιο υλοποίησης προγραμμάτων και έργων χρηματοδοτούμενων είτε από τον κρατικό προϋπολογισμό είτε μέσω συγχρηματοδότησης από ευρωπαϊκά ταμεία (κυρίως από τα ΕΔΕΤ),
- Υφιστάμενοι φορείς με αρμοδιότητες παρακολούθησης και ελέγχου στο πλαίσιο υλοποίησης προγραμμάτων και έργων χρηματοδοτούμενων από τον κρατικό προϋπολογισμό και συγχρηματοδοτούμενων από ευρωπαϊκούς πόρους και στελέχη αυτών που διαθέτουν την κατάλληλη εμπειρία και ικανότητα.

¹ European Commission, Commission Staff Working Document, Guidance to Member States, Recovery and Resilience Plans, SWD(2021) 12 final, 22.1.2021, Parts 1 and 2.

1.2 Θεσμοθέτηση και Τροποποιήσεις του ΣΠΕ

Το ΣΠΕ τίθεται σε ισχύ με την Απόφαση του Υπουργικού Συμβουλίου, με την οποία εγκρίνεται το Σχέδιο Ανάκαμψης και Ανθεκτικότητας. Πιο συγκεκριμένα, με αυτήν την Απόφαση:

- εγκρίνονται και τίθενται σε ισχύ οι διαδικασίες που αυτό περιγράφει
- ορίζονται οι αρμοδιότητες των εμπλεκόμενων στις διαδικασίες φορέων
- εξουσιοδοτεί τον Υπουργό Οικονομικών να προβαίνει σε οποιοσδήποτε απαραίτητες τεχνικής φύσεως τροποποιήσεις των διαδικασιών, σε συνεννόηση με τους εμπλεκόμενους Υπουργούς, χωρίς επαναφορά του θέματος στο Υπουργικό Συμβούλιο.

Σε κάθε τροποποίηση του ΣΠΕ, ενημερώνεται σχετικά η ΕΕ η οποία διατηρεί το δικαίωμα να ζητήσει πρόσθετες πληροφορίες για την τεκμηρίωση της τροποποίησης, καθώς και να δώσει κατευθύνσεις και οδηγίες, εάν απαιτείται, ώστε να διασφαλίζεται ότι εξακολουθούν να πληρούνται όλες οι απαιτήσεις του Κανονισμού του ΜΑΑ.

1.3 Δομή και Περιεχόμενο – Επιτελική Σύνοψη

Το ΣΠΕ δομείται στα ακόλουθα κεφάλαια:

- **Κεφάλαιο 1:** Η παρούσα εισαγωγή, η δομή και το περιεχόμενο του ΣΠΕ και η επιτελική σύνοψη κάθε Κεφαλαίου.
- **Κεφάλαιο 2:** Περιγραφή του Συστήματος Διακυβέρνησης του ΣΠΕ, όπου αναφέρονται όλοι οι φορείς που εμπλέκονται στην παρακολούθηση και τον έλεγχο της υλοποίησης του ΣΑΑ με τα κύρια χαρακτηριστικά τους και τις βασικές τους αρμοδιότητες, οι οποίες αναλύονται περαιτέρω στο επόμενο Κεφάλαιο. Συγκεκριμένα:

Συστήνεται **Επιτροπή Παρακολούθησης του ΣΑΑ**, για σκοπούς παρακολούθησης της προόδου υλοποίησης του συνολικού ΣΑΑ και την επίλυση θεμάτων και αντιμετώπιση κινδύνων, ειδικών ή οριζόντιων, που ενδέχεται να έχουν επίπτωση στην ομαλή υλοποίηση του ΣΑΑ.

Ως **Συντονιστική Αρχή (ΣΑ)** του ΣΑΑ ορίζεται η Διεύθυνση Στρατηγικής Ανάπτυξης και Ανταγωνιστικότητας της Γενικής Διεύθυνσης Ευρωπαϊκών Προγραμμάτων, Συντονισμού και Ανάπτυξης (ΓΔ ΕΠΣΑ). Η συνεχής συνεργασία της Διεύθυνσης με τις υπόλοιπες Διευθύνσεις της ΓΔ ΕΠΣΑ και το Υπουργείο Οικονομικών διασφαλίζει τον συντονισμό του συνόλου των προγραμμάτων που χρηματοδοτούνται από ευρωπαϊκούς και εθνικούς πόρους, καθώς και την αποφυγή διπλής χρηματοδότησης δράσεων από διαφορετικά προγράμματα.

Η ΣΑ έχει τη συνολική ευθύνη για τον συντονισμό και την παρακολούθηση της υλοποίησης του ΣΑΑ και για τη διασφάλιση της τήρησης των διαδικασιών του ΣΠΕ και της εθνικής νομοθεσίας από το σύνολο των εμπλεκόμενων, ενώ αποτελεί το σημείο επαφής και ανταλλαγής πληροφοριών με την ΕΕ. Η ΣΑ είναι επίσης αρμόδια για την **παρακολούθηση και πιστοποίηση της επίτευξης των στόχων και οροσέμων των παρεμβάσεων του ΣΑΑ** και συντονίζει τους ΦΥ για την υλοποίηση των παρεμβάσεων ευθύνης τους σύμφωνα με το χρονοδιάγραμμα του ΣΑΑ και για την έγκαιρη υποβολή εκ μέρους τους όλων των πληροφοριών του Άρθρου 22(2)(d) του

Κανονισμού του ΜΑΑ που απαιτούνται για τον έλεγχο διπλής χρηματοδότησης και σύγκρουσης συμφερόντων.

Επιπλέον η ΣΑ, ως **Εθνικός Συντονιστικός Φορέας για τις επαληθεύσεις και ελέγχους για την εφαρμογή του ΣΑΑ** συγκεντρώνει όλα τα αποτελέσματα των ελεγκτικών διαδικασιών που διενεργούνται από τους ελεγκτικούς φορείς, καθώς και όλων των περιπτώσεων σοβαρών παρατυπιών, συμπεριλαμβανομένων και των περιπτώσεων ή υπονοιών απάτης, διαφθοράς και σύγκρουσης συμφερόντων και των ενεργειών αντιμετώπισής τους, που απαιτούνται για την κατάρτιση της διαχειριστικής δήλωσης και της σύνοψης λογιστικών ελέγχων που συνοδεύει κάθε Αίτηση Πληρωμής.

Η ΣΑ συνεπικουρείται στο έργο της παρακολούθησης της υλοποίησης του ΣΑΑ από τους **Φορείς Παρακολούθησης (ΦΠ)**, φορείς με μεγάλη εμπειρία στην υλοποίηση συγχρηματοδοτούμενων και εθνικών έργων, οι οποίοι έχουν οριστεί ειδικά για την εκτέλεση καθηκόντων παρακολούθησης και πιστοποίησης της επίτευξης των στόχων και οροσήμων του ΣΑΑ, για τμήμα των παρεμβάσεων του Σχεδίου που εμπίπτει στους τομείς αρμοδιότητάς τους.

Όλες οι παρεμβάσεις (επενδύσεις και μεταρρυθμίσεις) του ΣΑΑ υλοποιούνται από **Φορείς Υλοποίησης (ΦΥ)** είτε της Κεντρικής Κυβέρνησης είτε εκτός αυτής, οι οποίοι ασκούν όλα τα καθήκοντα που απορρέουν από την υφιστάμενη εθνική και ευρωπαϊκή νομοθεσία τα οποία ασκούν και για την υλοποίηση οποιουδήποτε συγχρηματοδοτούμενου ή εθνικού έργου (συμπεριλαμβανομένων και των καθηκόντων πρωτοβάθμιου ελέγχου και επαλήθευσης φυσικού και οικονομικού αντικειμένου των παρεμβάσεων ευθύνης τους). Επιπλέον των συνήθων καθηκόντων τους, ειδικά όταν υλοποιούν παρεμβάσεις του ΣΑΑ, οι ΦΥ έχουν τις επιπρόσθετες υποχρεώσεις της υλοποίησης των παρεμβάσεων ευθύνης τους σύμφωνα με τις δεσμεύσεις που περιλαμβάνονται στο εγκεκριμένο ΣΑΑ, καθώς και της τακτικής ενημέρωσης της ΣΑ και των ΦΠ (όπου υπάρχουν) για την πρόοδο επίτευξης των στόχων και οροσήμων του ΣΑΑ, με την παροχή όλων των απαραίτητων στοιχείων τεκμηρίωσης.

Οι **αρμοδιότητες ελέγχου** της υλοποίησης των παρεμβάσεων του ΣΑΑ, σε όλα τα επίπεδα και για όλους τους τύπους ελεγκτικών διαδικασιών (εκ των προτέρων επαληθεύσεις για την πιστοποίηση συμβατότητας με πολιτικές / εκ των προτέρων πρωτοβάθμιοι έλεγχοι - εντός των ΦΥ / εκ των υστέρων δευτεροβάθμιοι - ανεξάρτητοι εσωτερικοί έλεγχοι - internal audit / εκ των υστέρων τριτοβάθμιοι - ανεξάρτητοι εξωτερικοί έλεγχοι - external audit) ανήκουν στους ίδιους φορείς που έχουν τις ίδιες ελεγκτικές αρμοδιότητες και στο πλαίσιο της υλοποίησης οποιουδήποτε έργου που υλοποιείται με πόρους του Κρατικού Προϋπολογισμού, σύμφωνα με την υφιστάμενη εθνική νομοθεσία, με τις κατάλληλες προσαρμογές για τον έλεγχο των παρεμβάσεων του ΣΑΑ όπου αυτό απαιτείται. Πιο συγκεκριμένα:

- Κατά τον σχεδιασμό του ΣΑΑ, υπό την ευθύνη και τον συντονισμό της ΣΑ και με την υποστήριξη όλων των αρμόδιων Διευθύνσεων της ΓΔ ΕΠΣΑ και του Υπουργείου Οικονομικών, διενεργούνται όλοι οι απαραίτητοι έλεγχοι για την εκ των προτέρων αποφυγή διπλής χρηματοδότησης των παρεμβάσεων του ΣΑΑ από άλλα ευρωπαϊκά ή εθνικά προγράμματα.
- Πριν την υποβολή του ΣΑΑ προς έγκριση, αρμόδιες **Αρχές Οριζόντιων Πολιτικών** πιστοποιούν τη συμβατότητα του συνολικού ΣΑΑ με τις οριζόντιες εθνικές και ευρωπαϊκές

πολιτικές για τη διαφύλαξη, προστασία και βελτίωση του περιβάλλοντος, την ισότητα και την απουσία κάθε μορφής διάκρισης. Επίσης πιστοποιείται η συμμόρφωση με την αρχή του “Do no significant harm”, για κάθε παρέμβαση του ΣΑΑ διακριτά. Ο Συντονιστής Κοστολόγησης επικυρώνει την κοστολόγηση των παρεμβάσεων του ΣΑΑ.

- Πριν την ανάθεση κάθε δημόσιας σύμβασης πέραν καθορισμένων ορίων και πριν την έναρξη της εφαρμογής κάθε Σχεδίου Χορηγιών, οι αντίστοιχες αρμόδιες **Αρχές Οριζόντιων Πολιτικών** πιστοποιούν τη **συμμόρφωση με τις οριζόντιες πολιτικές για τις δημόσιες συμβάσεις και τις κρατικές ενισχύσεις**, όπως εφαρμόζεται για κάθε έργο / σχέδιο χορηγιών που υλοποιείται στο πλαίσιο του Κρατικού Προϋπολογισμού και με πρόσθετες διαδικασίες ειδικά για τις παρεμβάσεις του ΣΑΑ. Επίσης, οι τελικοί αποδέκτες ενισχύσεων του ΣΑΑ δεσμεύονται, πριν την έναρξη των έργων τους, για τη συνεχή **τήρηση της αρχής του “Do no significant harm”**.
- Πριν την έναρξη οποιουδήποτε έργου και πριν τη διενέργεια οποιασδήποτε δαπάνης, ενεργοποιείται ο **εσωτερικός ελεγκτικός μηχανισμός κάθε ΦΥ**, για τον έλεγχο της νομιμότητας και κανονικότητας κάθε δαπάνης και για την επαλήθευση της υλοποίησης του αντίστοιχου φυσικού αντικείμενου στο οποία αφορά η δαπάνη, όπως εφαρμόζεται για κάθε παρέμβαση που υλοποιείται στο πλαίσιο του Κρατικού Προϋπολογισμού. Στον εσωτερικό μηχανισμό των ΦΥ της Κεντρικής Κυβέρνησης συμμετέχουν ο Προϊστάμενος του Οικονομικού Φορέα, ο Ελέγχων Λειτουργός, ο Αρμόδιος Λειτουργός που ορίζεται σε επίπεδο παρέμβασης, και οι Διευθύνσεις Χρηματοοικονομικής Διαχείρισης του ΓΛΤΔ που έχουν τοποθετηθεί σε κάθε Υπουργείο. Ανάλογος μηχανισμός εφαρμόζεται και στους Φορείς εκτός Κεντρικής Κυβέρνησης. Ειδικά για τα Σχέδια Χορηγιών, οι ΦΥ ελέγχουν τη διπλή χρηματοδότηση επιμέρους δαπανών σε επίπεδο παραστατικών, είτε μέσω αυτοματοποιημένων ελέγχων των πληροφοριακών συστημάτων που διαθέτουν είτε, εάν δεν διαθέτουν συστήματα, μέσω της σφράγισης των πρωτότυπων παραστατικών κατά τη διενέργεια επιτόπιων επαληθεύσεων.
- Η ανεξάρτητη **Υπηρεσία Εσωτερικού Ελέγχου (ΥΕΕ)** έχει την αρμοδιότητα διενέργειας εκ των υστέρων εσωτερικών ελέγχων (internal audit) στις παρεμβάσεις του ΣΑΑ, καθώς και ελέγχου της διαδικασίας επαλήθευσης της επίτευξης των στόχων και οροσήμων του ΣΑΑ, μέσω κατάλληλων μεθόδων δειγματοληψίας.
- Η ανεξάρτητη **Ελεγκτική Υπηρεσία (ΕΥ)**, είναι αρμόδια για τη διενέργεια ανεξάρτητου, αξιόπιστου και τεκμηριωμένου οικονομικού (financial), διαχειριστικού (performance) και κανονιστικού (compliance) εκ των υστέρων (και σε ορισμένες περιπτώσεις σε πραγματικό χρόνο – real time audit) εξωτερικού ελέγχου (external audit) για όλα τα έργα του Κρατικού Προϋπολογισμού (εντός και εκτός Κεντρικής Κυβέρνησης), μέσω κατάλληλης μεθόδου δειγματοληψίας η οποία συνάδει με τα πρότυπα του INTOSAI και στην οποία λαμβάνεται πρόνοια ώστε το επιλεγμένο δείγμα να περιλαμβάνει οπωσδήποτε ικανό αριθμό παρεμβάσεων του ΣΑΑ.

Ο Εθνικός Συντονιστικός Φορέας για την καταπολέμηση της απάτης κατά των συμφερόντων της Ευρωπαϊκής Ένωσης, ο Γενικός Εισαγγελέας της Δημοκρατίας και η Αστυνομία συμβάλλουν στην αντιμετώπιση κινδύνων διαφθοράς, απάτης και συγκρούσεων συμφερόντων, ενώ όλοι οι φορείς που εμπλέκονται στο ΣΠΕ και ειδικά οι φορείς με ελεγκτικές

αρμοδιότητες συμβάλουν στην πρόληψη και την έγκαιρη ανίχνευση τέτοιων κινδύνων καθ' όλη τη διάρκεια υλοποίησης του ΣΑΑ.

Όλοι οι φορείς που εμπλέκονται σε όλες τις διαδικασίες του ΣΠΕ διαθέτουν **επαρκή οργάνωση και ικανό αριθμό στελεχών με σημαντική εμπειρία και κατάλληλα προσόντα**, που θα αξιοποιηθούν και για την άσκηση των καθηκόντων τους στο πλαίσιο της υλοποίησης παρεμβάσεων του ΣΑΑ.

Επιπρόσθετες αρμοδιότητες που αφορούν ειδικά στην υλοποίηση των παρεμβάσεων του ΣΑΑ ανατίθενται στην ΣΑ, στους ΦΠ και στους ΦΥ, καθώς και στην ΥΕΕ όσον αφορά τον έλεγχο της διαδικασίας επαλήθευσης στόχων και οροσήμων. Οι ΦΥ θα ασκούν τις εν λόγω αρμοδιότητες με την αξιοποίηση του υφιστάμενου προσωπικού τους το οποίο κρίνεται επαρκές, καθώς ήδη ασκεί παρόμοιες αρμοδιότητες στο πλαίσιο παρεμβάσεων που συγχρηματοδοτούνται από τα ΕΔΕΤ. Σε περιπτώσεις όπου κρίθηκε απαραίτητη η στελέχωση των ΦΥ με πρόσθετο προσωπικό για υλοποίηση των παρεμβάσεων (ειδικά σε περιπτώσεις σχεδίων χορηγιών) αυτό εξασφαλίζεται με διαδικασία πρόσληψης εκτάκτων ορισμένου χρόνου για τη διάρκεια του έργου ή με αγορά υπηρεσιών. Το Υφυπουργείο Έρευνας, Καινοτομίας και Ψηφιακής Πολιτικής, λόγω του πλήθους των παρεμβάσεων που παρακολουθεί με την ιδιότητα του ΦΠ, ενισχύεται με επιπρόσθετο προσωπικό ειδικά για τον σκοπό αυτό. Όσον αφορά τη ΣΑ, το υφιστάμενο προσωπικό της έχει τα κατάλληλα προσόντα και την απαιτούμενη εμπειρία για τη διασφάλιση της ομαλής και απρόσκοπτης υλοποίησης όλων των ενεργειών που απαιτούνται μέχρι την έναρξη και κατά την αρχική περίοδο υλοποίησης του ΣΑΑ, ενώ πρόκειται άμεσα να στελεχωθεί από επιπρόσθετο δυναμικό ειδικά για τους σκοπούς του συντονισμού και της παρακολούθησης των παρεμβάσεων του ΣΑΑ καθ' όλη τη διάρκεια υλοποίησής του. Τέλος, αμέσως μετά την οριστικοποίηση του ΣΑΑ και του χρονικού προγραμματισμού των παρεμβάσεών του, θα αξιολογηθεί η ανάγκη για πρόσληψη νέου έκτακτου προσωπικού ορισμένου χρόνου ή για την αγορά υπηρεσιών για την υποστήριξη του έργου των ΥΕΕ και ΕΥ στο πλαίσιο του ΣΑΑ.

Κατάλληλη διάκριση καθηκόντων έχει διασφαλιστεί στην περίπτωση του Υφυπουργείου Έρευνας, Καινοτομίας και Ψηφιακής Πολιτικής, το οποίο είναι ταυτόχρονα ΦΠ και ΦΥ, καθώς τα καθήκοντα παρακολούθησης για τους σκοπούς του ΣΑΑ ασκούν άλλα στελέχη από τα στελέχη με αρμοδιότητες υλοποίησης παρεμβάσεων. Αντίστοιχες ρυθμίσεις έγιναν και στη ΓΔ ΕΠΣΑ για σκοπούς εκτέλεσης των αρμοδιοτήτων της ως Συντονιστικής Αρχής του ΣΑΑ.

- **Κεφάλαιο 3:** Περιγραφή των διαδικασιών του ΣΠΕ, όπου αναλύονται τα βήματα που ακολουθούνται για την εφαρμογή κάθε διαδικασίας που απαιτείται για την επίτευξη των στόχων του ΣΠΕ και του ΜΑΑ. Περιγράφονται οι διαδικασίες:
 - **Έναρξης και προγραμματισμού της υλοποίησης των παρεμβάσεων του ΣΑΑ**, όπου περιγράφεται η διαδικασία χρηματοδότησης των έργων από τον Κρατικό Προϋπολογισμό και στη συνέχεια εξειδικεύεται και αναλύεται ο προγραμματισμός των στόχων και οροσήμων που περιλαμβάνονται στο εγκεκριμένο ΣΑΑ για κάθε παρέμβαση, ενώ οι ΦΥ δεσμεύονται να υλοποιήσουν τις παρεμβάσεις ευθύνης τους σύμφωνα με αυτόν και με τα οριζόμενα στο παρόν ΣΠΕ. Στις διαδικασίες έναρξης συγκαταλέγονται και οι διαδικασίες επιλογής αναδόχων / αντισυμβαλλόμενων / τελικών αποδεκτών ενισχύσεων που

εφαρμόζουν οι ΦΥ σύμφωνα με την εθνική και ευρωπαϊκή νομοθεσία για τις δημόσιες συμβάσεις και τις κρατικές ενισχύσεις.

- **Παρακολούθησης της υλοποίησης του ΣΑΑ**, όπου περιγράφεται η διαδικασία της παρακολούθησης της υλοποίησης κάθε παρέμβασης του ΣΑΑ από την ευθύνη της ΣΑ και των ΦΠ (όπου έχουν οριστεί), καθώς και της παρακολούθησης της υλοποίησης του συνολικού ΣΑΑ από την ΣΑ, σε σύγκριση με τις δεσμεύσεις του εγκεκριμένου Σχεδίου. Η παρακολούθηση επιτυγχάνεται μέσω της αξιοποίησης των πληροφοριών που υποβάλλουν σε τακτική βάση (κάθε τρίμηνο) οι ΦΥ σύμφωνα με τις δεσμεύσεις τους. Το σημαντικότερο τμήμα των υποβαλλόμενων πληροφοριών αφορά στην πρόοδο της επίτευξης των στόχων και οροσήμων του ΣΑΑ και στην παροχή στοιχείων τεκμηρίωσης της επίτευξής τους, ωστόσο στην ενημέρωση των ΣΑ/ΦΠ περιλαμβάνονται και στοιχεία που αφορούν στην επίτευξη ενδιάμεσων σταδίων, καθώς και στον εντοπισμό, την πρόληψη και αντιμετώπιση κινδύνων και προβλημάτων που ενδέχεται να έχουν επίπτωση στην έγκαιρη επίτευξη των παρακολουθούμενων παρεμβάσεων.
- **Επαληθεύσεων και ελέγχων**, όπου περιγράφονται σε λεπτομέρεια όλες οι ελεγκτικές διαδικασίες που διενεργούνται σε κάθε επίπεδο και σε κάθε χρονική στιγμή, μετά την έγκριση του ΣΑΑ, από όλους τους ελεγκτικούς φορείς που αναφέρθηκαν στο Κεφάλαιο 2, στο πλαίσιο των εθνικών διαδικασιών για τον έλεγχο παρεμβάσεων που χρηματοδοτούνται από τον Κρατικό Προϋπολογισμό, και οι οποίες εφαρμόζονται και στην περίπτωση παρεμβάσεων του ΣΑΑ. Σε αυτές περιλαμβάνονται:
 - A. Εκ των προτέρων έλεγχοι (ex ante controls):**
 - Έλεγχοι συμβατότητας των υλοποιούμενων παρεμβάσεων με τις οριζόντιες εθνικές και ευρωπαϊκές πολιτικές για τις δημόσιες συμβάσεις και τις κρατικές ενισχύσεις από τις αρμόδιες οριζόντιες αρχές
 - Επαληθεύσεις φυσικού και οικονομικού αντικειμένου επενδύσεων και μεταρρυθμίσεων του ΣΑΑ από τους ελεγκτικούς μηχανισμούς των ΦΥ
 - Επαληθεύσεις προόδου επίτευξης στόχων και οροσήμων του ΣΑΑ από τη ΣΑ και τους ΦΠ, όπου έχουν οριστεί (επιπρόσθετες επαληθεύσεις ειδικά για τις παρεμβάσεις του ΣΑΑ)
 - B. Εκ των υστέρων έλεγχοι (ex post audits):**
 - Ανεξάρτητος εσωτερικός έλεγχος (internal audit) από την Υπηρεσία Εσωτερικού Ελέγχου και ανεξάρτητος εξωτερικός έλεγχος (external audit) από την Ελεγκτική Υπηρεσία διά του Γενικού Ελεγκτή της Δημοκρατίας.
- **Πρόληψης, ανίχνευσης και αντιμετώπισης κινδύνων απάτης, διαφθοράς, σύγκρουσης συμφερόντων και διπλής χρηματοδότησης**, όπου περιγράφεται η εμπλοκή του Εθνικού Φορέα για την καταπολέμηση της απάτης κατά των συμφερόντων της Ένωσης, της Γενικής Εισαγγελίας και της Αστυνομίας, συμπληρωματικά με τους ελεγκτικούς φορείς και υπό τον συντονισμό της ΣΑ, για το σκοπό αποφυγής τέτοιων κινδύνων και έγκαιρης αντιμετώπισής τους στην περίπτωση που εμφανιστούν.
- **Υποβολής Αιτήσεων Πληρωμής και Εκθέσεων Προόδου**, όπου περιγράφονται οι ενέργειες της ΣΑ σχετικά με την υποβολή των Αιτήσεων Πληρωμής και των συνοδευτικών τους

εγγράφων, καθώς και με την υποβολή Εκθέσεων Προόδου στο πλαίσιο του Ευρωπαϊκού Εξαμήνου.

- **Κεφάλαιο 4:** Συνοπτική περιγραφή των λειτουργικοτήτων που θα περιλαμβάνει το υπό σχεδιασμό Πληροφοριακό Σύστημα Παρακολούθησης που θα υποστηρίξει την εφαρμογή των διαδικασιών παρακολούθησης και ελέγχου της υλοποίησης του ΣΑΑ². Περιγράφονται:
 - οι ανάγκες και απαιτήσεις που το ΠΣΠ καλείται να καλύψει, και τα βασικά λειτουργικά του χαρακτηριστικά,
 - οι φορείς που συμμετέχουν στην ενημέρωσή του με την κάθε απαραίτητη πληροφορία και οι φορείς που έχουν πρόσβαση σε αυτό για την άσκηση των καθηκόντων τους,
 - τα βασικά συστατικά μέρη (modules) του ΠΣΠ (προγραμματισμός ΣΑΑ, έναρξη και προγραμματισμός επενδύσεων και μεταρρυθμίσεων, παρακολούθηση - συμπεριλαμβανομένων και αναφορών προόδου για σκοπούς παρακολούθησης, ελεγκτικές ενέργειες ΥΕΕ και ΕΥ, Αιτήσεις Πληρωμής και Εκθέσεις Προόδου προς ΕΕ),
 - το ενδεικτικό χρονοδιάγραμμα μέχρι τη θέση του ΠΣΠ σε πλήρη παραγωγική λειτουργία.

Στο **Παράρτημα I** δίνονται τα οργανογράμματα των σημαντικότερων φορέων που εμπλέκονται στις διαδικασίες παρακολούθησης και ελέγχου του ΣΑΑ (Συντονιστική Αρχή, Φορείς Παρακολούθησης, και Ελεγκτικοί Φορείς, δηλ. Ελεγκτικοί Μηχανισμοί Φορέων Υλοποίησης, Υπηρεσία Εσωτερικού Ελέγχου και Ελεγκτική Υπηρεσία).

Στο **Παράρτημα II** δίνεται η τεκμηρίωση της κάλυψης του συνόλου των απαιτήσεων του Κανονισμού 241/2021 από τις αντίστοιχες ενότητες του ΣΠΕ.

Στο **Παράρτημα III** δίνεται κατάλογος των Φορέων Υλοποίησης των παρεμβάσεων του ΣΑΑ, ανά κατηγορία (εντός ή εκτός Κεντρικής Κυβέρνησης).

Στο **Παράρτημα IV** επισυνάπτονται (σε μορφή αρχείων excel) υποδείγματα εντύπων και αναφορών τα οποία χρησιμοποιούνται για τη συλλογή και τήρηση των απαιτούμενων πληροφοριών από τους αρμόδιους φορείς μέχρι την έναρξη της παραγωγικής λειτουργίας του ΠΣΠ.

Στο **Παράρτημα V** επισυνάπτεται ο εθνικός Νόμος που Προνοεί Περί της Δημοσιονομικής Ευθύνης και του Δημοσιονομικού Πλαισίου (Ν. 20(Ι)/2014) ο οποίος, καθώς και όλη η νομοθεσία στην οποία αυτός αναφέρεται, εφαρμόζεται για κάθε παρέμβαση που χρηματοδοτείται από τον Κρατικό Προϋπολογισμό και επομένως και για την υλοποίηση των παρεμβάσεων του ΣΑΑ.

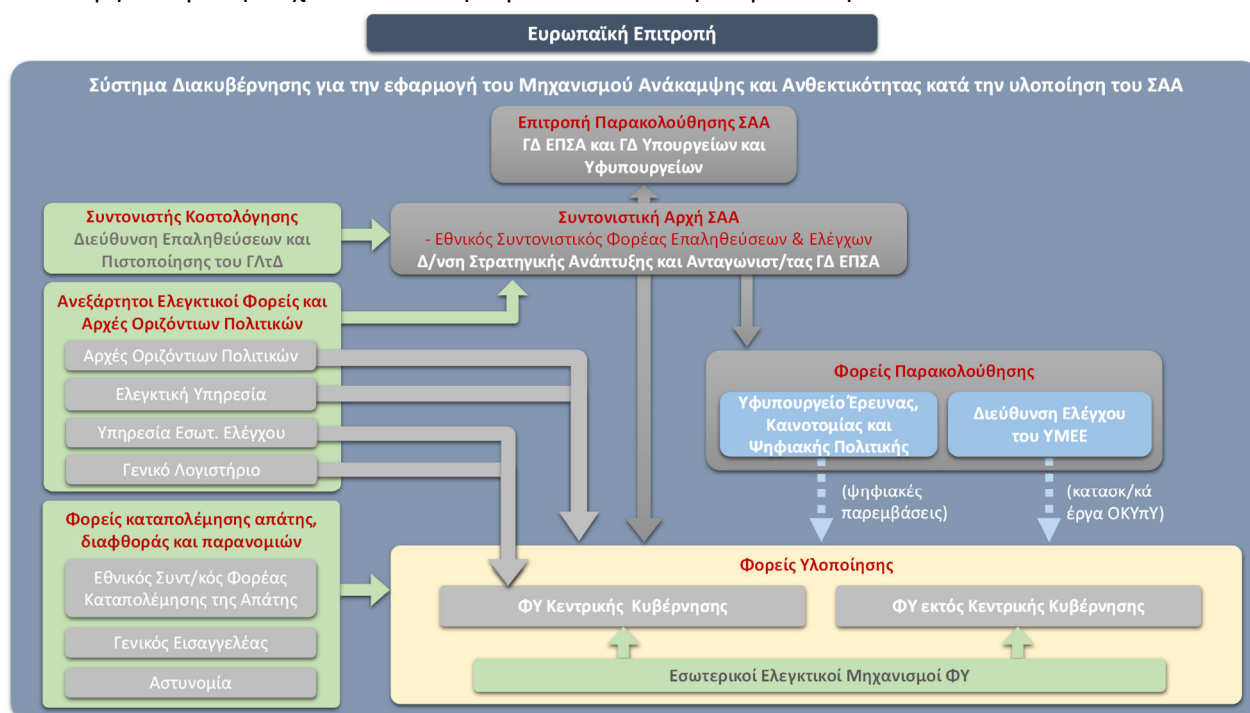
² Μέχρι την έναρξη της παραγωγικής λειτουργίας του ΠΣΠ του ΣΑΑ, η συλλογή και επεξεργασία των στοιχείων που απαιτούνται στο πλαίσιο των διαδικασιών διενεργείται μέσω ειδικά διαμορφωμένων εργαλείων excel.

2 Σύστημα Διακυβέρνησης

2.1 Σχήμα Διακυβέρνησης

Το Σύστημα Διακυβέρνησης για την εφαρμογή του Μηχανισμού Ανάκαμψης και Ανθεκτικότητας στην Κυπριακή Δημοκρατία, όπως φαίνεται στο σχήμα που ακολουθεί, απαρτίζεται από:

- Την Επιτροπή Παρακολούθησης του ΣΑΑ, με πρόεδρο τον Γενικό Διευθυντή της ΓΔ ΕΠΣΑ και μέλη τους Γενικούς Διευθυντές Υπουργείων και Υφυπουργείων
- Τη Συντονιστική Αρχή του ΣΑΑ, η οποία αναλαμβάνει τον συνολικό συντονισμό και την παρακολούθηση υλοποίησης του ΣΑΑ, τον ρόλο του Εθνικού Συντονιστικού Φορέα για τις επαληθεύσεις και ελέγχους καθώς και την επικοινωνία με την Ευρωπαϊκή Επιτροπή, για λογαριασμό της Κυπριακής Δημοκρατίας.
- Τον Συντονιστή Κοστολόγησης, που επικυρώνει την κοστολόγηση των παρεμβάσεων του ΣΑΑ και αποτελεί κεντρικό σημείο επαφής με την Ευρωπαϊκή Επιτροπή για θέματα κοστολόγησης.
- Τους Φορείς Παρακολούθησης, που αναλαμβάνουν την παρακολούθηση μέρους του ΣΑΑ.
- Τους Φορείς Υλοποίησης επενδύσεων και μεταρρυθμίσεων του ΣΑΑ, οι οποίοι δύναται να επιβλέπονται απευθείας από της ΣΑ ή/και από τους ΦΠ, και τους εσωτερικούς ελεγκτικούς μηχανισμούς τους, που ασκούν τις αρμοδιότητές τους σύμφωνα με την ισχύουσα εθνική νομοθεσία. Τους Ανεξάρτητους Ελεγκτικούς Φορείς της Κυπριακής Δημοκρατίας, που ασκούν τις αρμοδιότητές τους σύμφωνα με την ισχύουσα εθνική νομοθεσία, και τις Αρχές Οριζόντιων Πολιτικών που διασφαλίζουν τη συμμόρφωση του ΣΑΑ με τις οριζόντιες εθνικές και ευρωπαϊκές πολιτικές.
- Τους Ανεξάρτητους Ελεγκτικούς Φορείς, τις Αρχές Οριζόντιων Πολιτικών και τους Φορείς καταπολέμησης απάτης, διαφθοράς και παρανομιών, που ασκούν τις αρμοδιότητές τους σύμφωνα με την ισχύουσα εθνική νομοθεσία και στην περίπτωση του ΣΑΑ.



Στις επόμενες παραγράφους του παρόντος Κεφαλαίου παρουσιάζονται αναλυτικά οι φορείς του σχήματος διακυβέρνησης, με τα βασικά τους χαρακτηριστικά και τις κύριες αρμοδιότητές τους.

2.2 Επιτροπή Παρακολούθησης ΣΑΑ

2.2.1 Σύσταση Επιτροπής Παρακολούθησης

Με Υπουργική Απόφαση εγκρίνεται η σύσταση Επιτροπής Παρακολούθησης του ΣΑΑ, για σκοπούς παρακολούθησης της πορείας υλοποίησης του ΣΑΑ.

Στην Επιτροπή Παρακολούθησης του ΣΑΑ προεδρεύει ο Γενικός Διευθυντής της ΓΔ ΕΠΣΑ ή εκπρόσωπός του, και μετέχουν σε αυτήν οι Γενικοί Διευθυντές ή εκπρόσωποι τους, των:

- Υπουργείου Οικονομικών,
- Υπουργείου Γεωργίας, Αγροτικής Ανάπτυξης και Περιβάλλοντος ,
- Υπουργείου Ενέργειας, Εμπορίου και Βιομηχανίας ,
- Υπουργείου Μεταφορών, Επικοινωνιών και Έργων
- Υφυπουργείου Έρευνας, Καινοτομίας και Ψηφιακής Στρατηγικής,
- Υπουργείου Δικαιοσύνης και Δημοσίας Τάξεως,
- Υπουργείου Εξωτερικών,
- Υπουργείου Εργασίας, Πρόνοιας και Κοινωνικών Ασφαλίσεων,
- Υπουργείου Εσωτερικών,
- Υπουργείου Παιδείας, Πολιτισμού, Αθλητισμού και Νεολαίας και
- Υπουργείου Υγείας.

2.2.2 Ρόλος και αρμοδιότητες Επιτροπής Παρακολούθησης

Ρόλος της Επιτροπής Παρακολούθησης του ΣΑΑ είναι η κεντρική παρακολούθηση της προόδου υλοποίησης του συνολικού ΣΑΑ, με σκοπό:

- την ενημέρωση, εκ μέρους της Συντονιστικής Αρχής, όλων των Υπουργείων και Υφυπουργείων που συμμετέχουν στο ΣΑΑ για τη συνολική πρόοδο του προγράμματος,
- την έγκαιρη επίλυση τυχόν καθυστερήσεων ή άλλων προβλημάτων ή κινδύνων που εντοπίζονται κατά την υλοποίηση του ΣΑΑ, είτε στις παρεμβάσεις αρμοδιότητας συγκεκριμένων φορέων είτε σε οριζόντια θέματα που αφορούν στην εφαρμογή του ΣΠΕ.

Η Επιτροπή Παρακολούθησης θα συνεδριάζει τουλάχιστον 1 φορά κάθε τρεις μήνες, καθώς και εκτάκτως όποτε παρίσταται ανάγκη, και οπωσδήποτε πριν την υποβολή προς την ΕΕ των Αιτήσεων Πληρωμής και των Εκθέσεων Προόδου που προβλέπονται βάσει του Κανονισμού του ΣΑΑ.

Πέραν των τακτικών ή έκτακτων συνεδριάσεων της, η Επιτροπή Παρακολούθησης δύναται να διενεργεί γραπτή διαδικασία λήψης αποφάσεων για επείγοντα θέματα που χρήζουν άμεσης αντιμετώπισης, με την υποστήριξη της Συντονιστικής Αρχής.

2.3 Συντονιστική Αρχή

2.3.1 Ορισμός Συντονιστικής Αρχής

Ως Συντονιστική Αρχή (ΣΑ) για την υλοποίηση του εθνικού ΣΑΑ ορίζεται η Γενική Διεύθυνση Ευρωπαϊκών Προγραμμάτων, Συντονισμού και Ανάπτυξης (ΓΔ ΕΠΣΑ) και ειδικότερα η Διεύθυνση Στρατηγικής Ανάπτυξης και Ανταγωνιστικότητας η οποία δύναται να υποβοηθείται στην εκτέλεση των αρμοδιοτήτων της και από άλλες διευθύνσεις της ΓΔ ΕΠΣΑ.

2.3.2 Ρόλος και αρμοδιότητες Συντονιστικής Αρχής

Η ΣΑ έχει τη συνολική ευθύνη για τον συντονισμό και την παρακολούθηση της υλοποίησης του ΣΑΑ και για τη διασφάλιση της τήρησης των διαδικασιών του ΣΠΕ και της εθνικής νομοθεσίας από το σύνολο των εμπλεκόμενων, ενώ αποτελεί το σημείο επαφής και ανταλλαγής πληροφοριών με την ΕΕ στο πλαίσιο της εφαρμογής του ΜΑΑ στην Κυπριακή Δημοκρατία.

Οι αρμοδιότητες της ΣΑ συνοψίζονται στα ακόλουθα:

- Συντονισμός των διαπραγματεύσεων με την Ευρωπαϊκή Επιτροπή, σε συνεργασία με το Υπουργείο Οικονομικών, καθώς και των διαβουλεύσεων σε θέματα του ΜΑΑ και της εφαρμογής του στην Κυπριακή Δημοκρατία μέσω του ΣΑΑ.
- Κατάρτιση και υποβολή στην Ευρωπαϊκή Επιτροπή του ΣΑΑ και τυχόν αναθεωρήσεών του.
- Συνολική ευθύνη για την παρακολούθηση της υλοποίησης του ΣΑΑ και της επίτευξης των στόχων και οροσήμων του.
- Παρακολούθηση της υλοποίησης των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ (συμπεριλαμβανομένων και όσων παρακολουθούνται και από τους Φορείς Παρακολούθησης που έχουν οριστεί ειδικά για τον σκοπό αυτό – βλ. παρ. 2.6).
- Πιστοποίηση της προόδου επίτευξης των στόχων και οροσήμων για το σύνολο των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ (στηριζόμενη και στην εργασία που εκτελείται από τους Φορείς Παρακολούθησης που έχουν οριστεί ειδικά για τον σκοπό αυτό – βλ. παρ. 2.6), με τη διενέργεια διοικητικών και, εάν απαιτηθεί, επιτόπιων επαληθεύσεων.
- Υποστήριξη των εμπλεκόμενων φορέων στην υλοποίηση ενεργειών επίλυσης προβλημάτων και αντιμετώπισης κινδύνων που εντοπίζονται κατά τη διάρκεια υλοποίησης των παρεμβάσεων του ΣΑΑ.
- Συντονισμός της εκτέλεσης των καθηκόντων υλοποίησης και παρακολούθησης των παρεμβάσεων του ΣΑΑ.

- Συγκέντρωση των αποτελεσμάτων της εκτέλεσης των καθηκόντων επαληθεύσεων και εσωτερικού (control) και εξωτερικού (audit) ελέγχου από τους αρμόδιους ελεγκτικούς φορείς σύμφωνα με το ΣΠΕ και την εθνική και ενωσιακή νομοθεσία, καθώς και όλων των περιπτώσεων σοβαρών παρατυπιών, συμπεριλαμβανομένων και των περιπτώσεων ή υπονοιών απάτης, διαφθοράς και σύγκρουσης συμφερόντων και των ενεργειών αντιμετώπισής τους, ως **Εθνικός Συντονιστικός Φορέας για τις επαληθεύσεις και ελέγχους για την εφαρμογή του ΣΑΑ** .
- Ενημέρωση του Εθνικού Φορέα για την Καταπολέμηση της Απάτης **κατά των συμφερόντων της Ευρωπαϊκής Ένωσης** (AFCOS) σε περιπτώσεις που διαπιστώνεται πράξη ή υπόνοια για πράξη απάτης, διαφθοράς ή σύγκρουσης συμφερόντων και παρακολούθηση των ενεργειών αντιμετώπισης για το σύνολο του ΣΑΑ.
- Συντονισμός του προγραμματισμού των επενδύσεων και μεταρρυθμίσεων που χρηματοδοτούνται από τον ΜΑΑ με προγράμματα και παρεμβάσεις που χρηματοδοτούνται από ευρωπαϊκά ταμεία και χρηματοδοτικά μέσα στο πλαίσιο άλλων Πολιτικών της ΕΕ, και ιδίως της Πολιτικής Συνοχής, και από τον κρατικό προϋπολογισμό, και διασφάλιση της αποφυγής διπλής χρηματοδότησης.
- Συντονισμός των συνεδριάσεων και υποστήριξη της Επιτροπής Παρακολούθησης του ΣΑΑ.
- Κατάρτιση και υποβολή Αιτήσεων Πληρωμής, Διαχειριστικής Δήλωσης και Σύνοψης Λογιστικών Ελέγχων (summary of audits) προς την ΕΕ.
- Ετοιμασία και υποβολή προς την ΕΕ Εκθέσεων προόδου υλοποίησης του ΣΑΑ στο πλαίσιο του Ευρωπαϊκού Εξαμήνου, σύμφωνα με τα οριζόμενα στο Άρθρο 27 του Κανονισμού του ΜΑΑ.
- Υποστήριξη των ελεγκτικών οργάνων της ΕΕ στην άσκηση των καθηκόντων τους στο πλαίσιο του ΣΑΑ.

2.3.3 Οργάνωση και στελέχωση Συντονιστικής Αρχής

Η ΣΑ διαρθρώνεται στις ακόλουθες δύο Μονάδες:

- Μονάδα Συντονισμού 1 (1 επικεφαλής και 8 στελέχη) με κύριες αρμοδιότητες την πιστοποίηση και επαλήθευση της επίτευξης στόχων και ορόσημων των παρεμβάσεων/ μεταρρυθμίσεων του ΣΑΑ και τον συντονισμό των ΦΥ για την υλοποίηση των παρεμβάσεων ευθύνης τους σύμφωνα με το χρονοδιάγραμμα του ΣΑΑ. Κάθε στέλεχος της Μονάδας Συντονισμού 1 αναλαμβάνει να παρακολουθεί συγκεκριμένους ΦΥ, τους οποίους και υποστηρίζει στη χρήση του ΠΣΠ και των λοιπών εργαλείων της ΣΑ για τη συλλογή των απαιτούμενων πληροφοριών. Ένα στέλεχος της Μονάδας ορίζεται ως αρμόδιο για θέματα ΠΣΠ και αποτελεί το σημείο επαφής της ΣΑ με τον ανάδοχο που θα υλοποιήσει το ΠΣΠ, για την επίλυση τεχνικών ζητημάτων. Η Μονάδα Συντονισμού 1 αναλαμβάνει και την εκπόνηση των Εκθέσεων Προόδου που αποστέλλονται στην ΕΕ.
- Μονάδα Συντονισμού 2 (1 επικεφαλής και 3 στελέχη) με κύριες αρμοδιότητες την κατάρτιση των αιτήσεων πληρωμής, καθώς και την προετοιμασία και υποβολή της διαχειριστικής

δήλωσης και της σύνοψης λογιστικών ελέγχων που τις συνοδεύουν. Η Μονάδα Συντονισμού 2 ασκεί και τις αρμοδιότητες της ΣΑ ως Εθνικού Συντονιστικού Φορέα για τις επαληθεύσεις και ελέγχους για την εφαρμογή του ΣΑΑ, συγκεντρώνοντας τα αποτελέσματα από το έργο των ελεγκτικών φορέων που αφορά στις παρεμβάσεις του ΣΑΑ καθώς και όλων των περιπτώσεων σοβαρών παρατυπιών, συμπεριλαμβανομένων και των περιπτώσεων ή υπονοιών απάτης, διαφθοράς και σύγκρουσης συμφερόντων και των ενεργειών αντιμετώπισής τους. Επίσης συγκεντρώνει και επεξεργάζεται όλες τις πληροφορίες του Άρθρου 22(2)(d) του Κανονισμού του ΜΑΑ που υποβάλλουν οι ΦΥ και που απαιτούνται για τον έλεγχο διπλής χρηματοδότησης και σύγκρουσης συμφερόντων.

Και οι δύο Μονάδες Συντονισμού της ΣΑ συμμετέχουν, ανάλογα με τις αρμοδιότητές τους, στον συντονισμό και την υποστήριξη των συνεδριάσεων της Επιτροπής Παρακολούθησης του ΣΑΑ. Συγκεκριμένα, προετοιμάζουν όλο το απαραίτητο υλικό όπου αποτυπώνεται η συνολική πρόοδος υλοποίησης του ΣΑΑ και τα θέματα προς επίλυση, και αποστέλλουν το υλικό στα μέλη της Επιτροπής Παρακολούθησης πριν από κάθε συνεδρίαση. Ειδικά για τις συνεδριάσεις που διενεργούνται πριν την υποβολή Αιτήσεων Πληρωμής ή Εκθέσεων Προόδου, στο υλικό προετοιμασίας περιλαμβάνονται και προσχέδια των εγγράφων που πρόκειται να υποβληθούν στην ΕΕ. Επιπρόσθετα, οι δύο Μονάδες υποστηρίζουν τον Πρόεδρο της Επιτροπής Παρακολούθησης στη διενέργεια γραπτής διαδικασίας λήψης αποφάσεων για επείγοντα θέματα που χρήζουν άμεσης αντιμετώπισης.

Για κάθε Μονάδα Συντονισμού έχει οριστεί ως επικεφαλής ένα ανώτερο στέλεχος της ΣΑ (Senior Planning Officer ή Coordination Officer A), το οποίο έχει στην ευθύνη του την ομαλή λειτουργία της Μονάδας και την κατάλληλη κατανομή των εργασιών στα στελέχη της, ενώ επιλαμβάνεται κάθε θέματος που προκύπτει, καθοδηγώντας και υποστηρίζοντας τα στελέχη της Μονάδας.

Οι δύο επικεφαλής των Μονάδων Συντονισμού συνεργάζονται στενά μεταξύ τους και αναφέρονται στον **Διευθυντή Συντονισμού (Coordinator Director)** ο οποίος ηγείται όλου του προσωπικού της ΣΑ και, σε συνεργασία με τους Συντονιστές των Μονάδων, διενεργεί τον έλεγχο της τήρησης όλων των υποχρεώσεων της ΣΑ απέναντι στην ΕΕ. Τον ρόλο του Διευθυντή Συντονισμού αναλαμβάνει η Διευθύντρια της Διεύθυνσης Στρατηγικής Ανάπτυξης και Ανταγωνιστικότητας.

Η λειτουργία της Διεύθυνσης Στρατηγικής Ανάπτυξης και Ανταγωνιστικότητας, σε συνδυασμό με τις λειτουργίες των λοιπών Δ/νσεων της ΓΔ ΕΠΣΑ (και ειδικά της Δ/σης Πολυετούς Δημοσιονομικού Πλαισίου και Πολιτικής Συνοχής, της Δ/σης Δημοσίων Επενδύσεων και της Δ/σης Ευρωπαϊκών Προγραμμάτων) και τη μεταξύ τους συνεχή και απρόσκοπτη συνεργασία υπό τον **Γενικό Διευθυντή (Permanent Secretary) της ΓΔ ΕΠΣΑ**, διασφαλίζουν τον συντονισμό του συνόλου των δράσεων που χρηματοδοτούνται από ευρωπαϊκούς ή εθνικούς πόρους και την αποφυγή διπλής χρηματοδότησης κατά τη φάση του σχεδιασμού κάθε νέου προγράμματος.

Το στελεχιακό δυναμικό της ΣΑ, πέραν του Γενικού Διευθυντή της ΓΔ ΕΠΣΑ και του Διευθυντή Συντονισμού, αποτελείται από 13 εξειδικευμένα στελέχη της Διεύθυνσης Στρατηγικής Ανάπτυξης και Ανταγωνιστικότητας της ΓΔ ΕΠΣΑ, εκ των οποίων τα 7 (1 Senior Planning Officer, 2 Coordination Officers A και 3 Planning Officers) διαθέτουν υψηλά προσόντα (πτυχία και μεταπτυχιακά σε συναφή με τις αρμοδιότητές τους αντικείμενα) και πολυετή εμπειρία στον συντονισμό, την παρακολούθηση, τον έλεγχο και τη διαχείριση προγραμμάτων και έργων της Κυπριακής Δημοκρατίας, τόσο σε εθνικό όσο και σε ευρωπαϊκό επίπεδο.

Τη στελέχωση της ΣΑ συμπληρώνουν 2 Coordination Officers οι οποίοι θα προσληφθούν εντός του Μαΐου 2021 και 4 μη μόνιμοι υπάλληλοι που θα προσληφθούν εντός του 2021, όλοι πανεπιστημιακού επιπέδου με ειδικευση στους τομείς των οικονομικών, δημόσιας διοίκησης, διοίκησης επιχειρήσεων, λογιστικής, δικαίου, πολιτικών επιστημών, ευρωπαϊκών σπουδών ή άλλων συναφών αντικειμένων. Ειδικά η Μονάδα Συντονισμού 1 μπορεί να υποστηρίζεται και από το προσωπικό άλλων Διευθύνσεων της ΓΔ ΕΠΣΑ, όποτε αυτό απαιτηθεί στο μέλλον.

Το οργανόγραμμα της ΣΑ, καθώς και συνοπτικά βιογραφικά στοιχεία του Γενικού Διευθυντή της ΓΔ ΕΠΣΑ και του Διευθυντή Συντονισμού της ΣΑ παρουσιάζονται στο Παράρτημα Ι του παρόντος εγγράφου (οργανόγραμμα Νο 1).

2.4 Συντονιστής Κοστολόγησης

2.4.1 Ορισμός Συντονιστή Κοστολόγησης

Ως Συντονιστής Κοστολόγησης για το ΣΑΑ της κυπριακής Δημοκρατίας ορίζεται η Διεύθυνση Επαληθεύσεων και Πιστοποίησης (ΔΕΠ) του Γενικού Λογιστηρίου της Κυπριακής Δημοκρατίας.

2.4.2 Ρόλος του Συντονιστή Κοστολόγησης

Ρόλος του Συντονιστή Κοστολόγησης είναι:

- Η επικύρωση της κοστολόγησης των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ
- Να αποτελεί το κεντρικό σημείο επαφής για την ΕΕ σε θέματα κοστολόγησης και να παρέχει σε αυτήν όλες τις σχετικές πληροφορίες ή στοιχεία τεκμηρίωσης που μπορεί να ζητηθούν για τις εκτιμήσεις κόστους των παρεμβάσεων του ΣΑΑ.

Παράλληλα, οι αρμοδιότητες που έχει η ΔΕΠ στο πλαίσιο άλλων ευρωπαϊκών προγραμμάτων καθιστούν τη συγκεκριμένη Διεύθυνση κατάλληλη για τον ρόλο του Συντονιστή Κοστολόγησης του ΣΑΑ, καθώς:

- Ο ρόλος της ΔΕΠ ως Αρχής Πιστοποίησης, ως κεντρικού Φορέα διοικητικών Επαληθεύσεων Δαπανών για τα ΕΠ των ΕΔΕΤ και ως Αρμόδια Αρχή Εξουσιοδότησης Επαληθευτών Προγραμμάτων Εδαφικής Συνεργασίας, και ειδικότερα η συμμετοχή του προσωπικού της ΔΕΠ σε διοικητικές και επιτόπιες επαληθεύσεις έργων που συγχρηματοδοτούνται μέσω επιμερισμένης διαχείρισης, αποτέλεσαν πρόσθετη δικλίδα ασφαλείας για την αποφυγή της διπλής χρηματοδότησης κατά το στάδιο ετοιμασίας των προτάσεων και μέχρι την έγκριση του ΣΑΑ.
- Η συμμετοχή της ΔΕΠ στην ανάπτυξη της Διαδικασίας Αξιολόγησης Κινδύνων Απάτης που χρησιμοποιήθηκε τόσο για τα ΕΠ των ΕΔΕΤ όσο και για το ΣΑΑ, καθώς και ο ρόλος της ως Εθνικός Συντονιστικός Φορέας για θέματα απάτης κατά των συμφερόντων της Ευρωπαϊκής Ένωσης (AFCOS), ρόλο τον οποίο ασκεί και στο πλαίσιο της υλοποίησης του ΣΑΑ, διασφαλίζουν την ευαισθητοποίηση των στελεχών της σε θέματα παρατυπιών και απάτης.

2.4.3 Οργάνωση και στελέχωση του Συντονιστή Κοστολόγησης

Η ΔΕΠ:

- Διευθύνεται από έναν ανώτερο λογιστή, Fellow Chartered Certified Accountant (FCCA) και κάτοχο των πτυχίων BSc Hons Management Sciences και Master of Public Sector Management, με περισσότερα από εικοσιπέντε χρόνια εργασιακής εμπειρίας, ο οποίος διαδραματίζει ηγετικό ρόλο στον έλεγχο και τη συμμόρφωση με την εθνική και ευρωπαϊκή νομοθεσία, σε διάφορους τομείς, οργανισμούς και θέματα.
- Στελεχώνεται με έναν (1) ανώτερο λογιστή, εννέα (9) ειδικούς λογιστές και έναν (1) βοηθό λογιστή, με πολύχρονη εμπειρία στη δημοσιονομική διαχείριση και έλεγχο συγχρηματοδοτούμενων έργων και προγραμμάτων, στην ανάλυση κόστους επενδύσεων και μεταρρυθμίσεων, σε επαληθεύσεις οικονομικού αντικειμένου και διαδικασιών εκτέλεσης δημοσίων συμβάσεων και κρατικών ενισχύσεων. Επιπρόσθετα, συμμετέχουν στο Δίκτυο Απλοποίησης για την ανάπτυξη μεθοδολογιών απλουστευμένων επιλογών κόστους για συγχρηματοδοτούμενα προγράμματα.

Όλα τα στελέχη της ΔΕΠ είναι ειδικευμένοι Λογιστές (είτε μέλη του Ινστιτούτου Ορκωτών Λογιστών στην Αγγλία και Ουαλία, είτε της Ένωσης Ορκωτών Λογιστών) και επίσης μέλη του Συνδέσμου Εγκεκριμένων Λογιστών Κύπρου (ΣΕΛΚ).

Ο επικεφαλής της ΔΕΠ μαζί με τρεις (3) ειδικούς λογιστές, εκτελούν τη λειτουργία του συντονισμού κοστολόγησης για όλες τις παρεμβάσεις του ΣΑΑ.

2.5 Αρχές Οριζόντιων Πολιτικών

2.5.1 Ορισμός Αρχών Οριζόντιων Πολιτικών

Σε σχέση με τις οριζόντιες εθνικές και ευρωπαϊκές πολιτικές για τις κρατικές ενισχύσεις, τις δημόσιες συμβάσεις, το περιβάλλον, την ισότητα, και τη μη διάκριση, ως αρμόδιες Αρχές για τον έλεγχο της συμβατότητας των υλοποιούμενων παρεμβάσεων του ΣΑΑ με αυτές ορίζονται οι φορείς που αναγράφονται στον ακόλουθο πίνακα:

Οριζόντια Πολιτική	Αρμόδια Αρχή	Ρόλος
Κρατικές Ενισχύσεις	Έφορος Ελέγχου Κρατικών Ενισχύσεων	Αποτελεί τον κρατικό συντονιστικό φορέα για θέματα κρατικών ενισχύσεων. Σύμφωνα με τον Περί Ελέγχου των Κρατικών Ενισχύσεων Νόμο του 2001 (Ν.23(Ι)/2001). Κάθε Αρμόδια Αρχή, πριν από την ολοκλήρωση της διαδικασίας έγκρισης κρατικής ενίσχυσης, έχει υποχρέωση να κοινοποιεί προσχέδιο της εν λόγω ενίσχυσης στον Έφορο για έγκριση ή

		γνωμοδότηση ή και απλή ενημέρωση ανάλογα με την περίπτωση.
Δημόσιες Συμβάσεις	Γενικό Λογιστήριο της Δημοκρατίας – Διεύθυνση Δημοσίων Συμβάσεων	Αποτελεί την αρμόδια αρχή δημοσίων συμβάσεων για το εθνικό νομοθετικό πλαίσιο και την εναρμόνισή του με το αντίστοιχο νομοθετικό πλαίσιο της Ένωσης. Ελέγχει τις διαδικασίες σύναψης δημοσίων συμβάσεων για κάθε σύμβαση άνω του καθορισμένου ορίου και πιστοποιεί τη συμβατότητά τους με την εθνική και ευρωπαϊκή νομοθεσία περί δημοσίων συμβάσεων.
Περιβάλλον	Τμήμα Περιβάλλοντος του Υπουργείου Γεωργίας, Αγροτικής Ανάπτυξης και Περιβάλλοντος	Γνωμοδοτεί για τη συμμόρφωση του συνολικού ΣΑΑ με τις οριζόντιες πολιτικές για τη διαφύλαξη, προστασία και βελτίωση του περιβάλλοντος και τη βιώσιμη ανάπτυξη. Η γνωμοδότηση ολοκληρώνεται πριν την υποβολή του ΣΑΑ στην ΕΕ προς έγκριση. Επίσης, διενεργεί εκ των προτέρων αξιολόγηση για κάθε μία από τις παρεμβάσεις του ΣΑΑ σε σχέση με τη συμβατότητα με την πολιτική για το “Do no significant harm”, καθώς η συμβατότητα αυτή αποτελεί κριτήριο για την έγκριση του ΣΑΑ.
Ισότητα μεταξύ ανδρών και γυναικών	Υπουργείο Δικαιοσύνης και Δημοσίας Τάξης	Γνωμοδοτεί σχετικά με την συμμόρφωση του συνολικού ΣΑΑ με τις οριζόντιες πολιτικές για την ισότητα. Η γνωμοδότηση ολοκληρώνεται πριν την υποβολή του ΣΑΑ στην ΕΕ προς έγκριση.
Μη Διάκριση	Τμήμα Εργασίας του Υπουργείου Εργασίας, Πρόνοιας και Κοινωνικών Ασφαλίσεων	Γνωμοδοτεί σχετικά με την απουσία κάθε διάκρισης εξαιτίας του φύλου, της φυλής ή της εθνικής καταγωγής, της θρησκείας ή των πεποιθήσεων, της ύπαρξης αναπηρίας, της ηλικίας ή του γενετήσιου προσανατολισμού στο συνολικό ΣΑΑ. Η γνωμοδότηση ολοκληρώνεται πριν την υποβολή του ΣΑΑ στην ΕΕ προς έγκριση.

2.6 Φορείς Παρακολούθησης (ΦΠ)

2.6.1 Ορισμός Φορέων Παρακολούθησης

Ως Φορείς Παρακολούθησης (ΦΠ) ορίζονται συγκεκριμένοι φορείς της κεντρικής κυβέρνησης, στους οποίους ανατίθεται η εκτέλεση καθηκόντων παρακολούθησης και πιστοποίησης της επίτευξης των στόχων και οροσήμων του ΣΑΑ, για τμήμα των παρεμβάσεων του Σχεδίου.

Πιο συγκεκριμένα, ανατίθενται:

- Στο **Υφυπουργείο Έρευνας, Καινοτομίας και Ψηφιακής Πολιτικής**: η παρακολούθηση της υλοποίησης και η πιστοποίηση της επίτευξης στόχων και οροσήμων του ΣΑΑ για όλες τις ψηφιακές παρεμβάσεις του ΣΑΑ.
- Στη **Διεύθυνση Ελέγχου του Υπουργείου Μεταφορών, Επικοινωνιών και Έργων**: η παρακολούθηση της υλοποίησης και η πιστοποίηση της επίτευξης στόχων και οροσήμων του ΣΑΑ τεχνικών / κατασκευαστικών παρεμβάσεων που υλοποιούνται από τον Οργανισμό Κρατικών Υπηρεσιών Υγείας (ΟΚΥΠΥ).

2.6.2 Ρόλος και αρμοδιότητες Φορέων Παρακολούθησης

Ρόλος των ΦΠ είναι η εκτέλεση καθηκόντων παρακολούθησης και πιστοποίησης της επίτευξης των στόχων και οροσήμων για τις παρεμβάσεις του ΣΑΑ που εμπíπτουν στην ευθύνη τους.

Οι αρμοδιότητες των ΦΠ συνοψίζονται στα ακόλουθα:

- Παρακολούθηση της υλοποίησης των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ που εμπíπτουν στην ευθύνη τους.
- Πιστοποίηση της προόδου επίτευξης των στόχων και οροσήμων των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ που εμπíπτουν στην ευθύνη τους, με τη διενέργεια διοικητικών και, εάν απαιτηθεί, επιτόπιων επαληθεύσεων.
- Παρακολούθηση της προόδου ενεργειών επίλυσης προβλημάτων και αντιμετώπισης κινδύνων που εντοπίζονται κατά τη διάρκεια υλοποίησης των παρεμβάσεων ευθύνης τους.
- Υποστήριξη των Φορέων Υλοποίησης στην επίλυση προβλημάτων και αντιμετώπιση κινδύνων που εντοπίζονται κατά τη διάρκεια υλοποίησης των παρεμβάσεων ευθύνης τους.
- Υποστήριξη της ΣΑ στην κατάρτιση των Αιτήσεων Πληρωμής και των Εκθέσεων Προόδου υλοποίησης του ΣΑΑ, εάν απαιτηθεί, για τις παρεμβάσεις ευθύνης τους.
- Ενημέρωση του Εθνικού Φορέα για την Καταπολέμηση της Απάτης κατά των συμφερόντων της Ευρωπαϊκής Ένωσης (AFCOS) μέσω της ΣΑ σε περιπτώσεις που διαπιστώνεται πράξη ή υπόνοια για πράξη απάτης, διαφθοράς ή σύγκρουσης συμφερόντων, και παρακολούθηση των ενεργειών αντιμετώπισης για τις παρεμβάσεις ευθύνης τους.
- Χρήση του ΠΣΠ του ΣΑΑ για την άσκηση των καθηκόντων τους, σύμφωνα με τα οριζόμενα στο ΣΠΕ.

Οι Φορείς Παρακολούθησης λειτουργούν υπό την ευθύνη της Συντονιστικής Αρχής.

2.6.3 Οργάνωση και στελέχωση Φορέων Παρακολούθησης

2.6.3.1 Υφυπουργείο Έρευνας, Καινοτομίας και Ψηφιακής Πολιτικής

Το Υφυπουργείο Έρευνας, Καινοτομίας και Ψηφιακής Πολιτικής έχει μακρόχρονη εμπειρία στην επιτυχή υλοποίηση και παρακολούθηση ψηφιακών δράσεων, παρόμοιου μεγέθους και πολυπλοκότητας με αυτά που καλείται να παρακολουθήσει, ως Φορέας Παρακολούθησης, στο πλαίσιο του ΣΑΑ. Συνολικά το Υφυπουργείο εκτιμάται ότι θα παρακολουθήσει την πρόοδο επίτευξης των στόχων και οροσήμων για πάνω από 20 έργα που περιλαμβάνονται στο ΣΑΑ, συνολικού προϋπολογισμού περίπου 77 εκ. ευρώ.

Καθώς το Υφυπουργείο αποτελεί ταυτόχρονα και Φορέα Υλοποίησης παρεμβάσεων ηλεκτρονικής διακυβέρνησης και έργων υποδομών και ευρυζωνικότητας του ΣΑΑ, για τον διαχωρισμό των καθηκόντων του έχει ορίσει συγκεκριμένους ρόλους σε κάθε στέλεχος, όπως φαίνεται στο ακόλουθο διάγραμμα:



Συγκεκριμένα, καθήκοντα ΦΠ για τις παρεμβάσεις του ΣΑΑ αναλαμβάνουν στελέχη του Υφυπουργείου ως ακολούθως:

- 1 Program/Project Manager
- 1 Support Officer (Administrative/ Ειδικός Πληροφορικής),

ενώ, καθήκοντα ΦΥ των παρεμβάσεων του ΣΑΑ αναλαμβάνουν άλλα στελέχη του Υφυπουργείου, ως ακολούθως:

- Για τα Έργα Ηλεκτρονικής Διακυβέρνησης: 1 Program/Project Manager, 1 Support Officer (Administrative/ Ειδικός Πληροφορικής), 7 Αναλυτές/Προγραμματιστές, 1 Ειδικός

Πληροφορικής/Τεχνικός Αναλυτής και 1 Αναλυτής/προγραμματιστής ειδικός σε θέματα Geographic Information Systems

- Για τα Έργα Υποδομών και Ευρυζωνικότητας: 1 Program/Project Manager (υφιστάμενο προσωπικό) και 3 Μηχανικοί Τηλεπικοινωνιών και Δικτύων

Το συνολικό οργανόγραμμα του Υφυπουργείου Έρευνας, Καινοτομίας και Ψηφιακής Πολιτικής παρουσιάζεται στο Παράρτημα Ι του παρόντος εγγράφου (οργανόγραμμα Νο 2).

2.6.3.2 Διεύθυνση Ελέγχου του Υπουργείου Μεταφορών, Επικοινωνιών και Έργων

Η Διεύθυνση Ελέγχου του Υπουργείου Μεταφορών, Επικοινωνιών και Έργων ασκεί τις αρμοδιότητες παρακολούθησης και πιστοποίησης της επίτευξης των στόχων και οροσήμων για τις παρεμβάσεις του ΣΑΑ που εμπíπτουν στην ευθύνη της μέσω του προσωπικού της, το οποίο αριθμεί συνολικά 28 άτομα και διαρθρώνεται στις ακόλουθες κατηγορίες:

- Ανώτεροι Λειτουργοί Ελέγχου (3 άτομα: 2 πολιτικοί μηχανικοί, εκ των οποίων ο ένας εκτελεστικός μηχανικός, και 1 μηχανολόγος μηχανικός)
- Λειτουργοί Ελέγχου (13 άτομα: 9 πολιτικοί μηχανικοί, 2 ηλεκτρολόγοι μηχανικοί και 2 μηχανολόγοι μηχανικοί)
- Ανώτεροι Τεχνικοί (7 άτομα: τεχνικοί πολιτικής μηχανικής)
- Τεχνικοί (5 άτομα: 1 μηχανικός μηχανολογίας, 1 τεχνικός μηχανολογίας και 3 τεχνικοί ηλεκτρολογίας).

Τόσο οι Λειτουργοί όσο και οι Τεχνικοί της Διεύθυνσης έχουν τα κατάλληλα επαγγελματικά προσόντα και εμπειρία, καλύπτοντας όλο το φάσμα των ειδικοτήτων που απαιτούνται για την άσκηση των αρμοδιοτήτων της Διεύθυνσης (πολιτικοί μηχανικοί, μηχανολόγοι μηχανικοί και ηλεκτρολόγοι μηχανικοί).

Όλοι οι Λειτουργοί κατέχουν πτυχίο Πανεπιστημίου. Οι Τεχνικοί είναι όλοι κάτοχοι πτυχίου ΑΤΙ και πολλοί και κάτοχοι Πτυχίου Πανεπιστημίου, παρόλο που αυτό δεν είναι απαραίτητο, για τη θέση που κατέχουν.

Το ανωτέρω προσωπικό, εκτός από αυτό που έχει προσληφθεί ως ορισμένου χρόνου ειδικά για τα συγχρηματοδοτούμενα έργα, εμπλέκεται και στη παρακολούθηση των παρεμβάσεων του ΣΑΑ είτε σε μικρό είτε σε μεγάλο βαθμό.

Το συνολικό οργανόγραμμα της Διεύθυνσης Ελέγχου του ΥΜΕΕ και τα αναλυτικά προσόντα των Λειτουργών της παρουσιάζονται στο Παράρτημα Ι του παρόντος εγγράφου (οργανόγραμμα Νο 3).

2.7 Φορείς Υλοποίησης (ΦΥ)

2.7.1 Κατηγορίες Φορέων Υλοποίησης

Ως Φορείς Υλοποίησης (ΦΥ) νοούνται για το ΣΑΑ οι φορείς που υλοποιούν επενδύσεις και μεταρρυθμίσεις του ΣΑΑ, είτε αυτές αφορούν σε έργα που υλοποιούνται μέσω συμβάσεων, είτε σε Σχέδια Χορηγιών, είτε σε μεταρρυθμίσεις που υλοποιούνται με ίδιους πόρους³ ή που χρηματοδοτούνται από τον εθνικό προϋπολογισμό ή άλλες πηγές. Οι ΦΥ ανήκουν σε δύο (2) κατηγορίες:

- **ΦΥ Κεντρικής Κυβέρνησης (ΦΥ ΚΚ)**, δηλαδή Υπουργεία, Υφυπουργεία, Τμήματα, συνταγματικές εξουσίες και υπηρεσίες ή ανεξάρτητα γραφεία που περιλαμβάνονται στον προϋπολογισμό της Δημοκρατίας και
- **ΦΥ εκτός Κεντρικής Κυβέρνησης (ΦΥ εκτός ΚΚ)**, όπως Δήμοι, Αρχές Τοπικής Αυτοδιοίκησης, Συμβούλια, εποπτευόμενοι δημόσιοι ή ιδιωτικοί οργανισμοί.

Επισημαίνεται ότι οι ΦΥ που υλοποιούν επενδύσεις ή μεταρρυθμίσεις του ΣΑΑ που αφορούν σε έργα, είτε αυτά υλοποιούνται μέσω συμβάσεων είτε με ίδιους πόρους του ΦΥ (δηλαδή κάθε τύπου παρέμβαση πλην Σχεδίων Χορηγιών), αποτελούν και τους τελικούς αποδέκτες χρηματοδότησης (final recipients) από τους πόρους του ΜΑΑ, ενώ στην περίπτωση των Σχεδίων Χορηγιών τελικοί αποδέκτες της χρηματοδότησης του ΜΑΑ είναι οι τελικοί αποδέκτες της ενίσχυσης (δημόσιοι ή ιδιωτικοί οργανισμοί, ΜΚΟ, ή φυσικά πρόσωπα).

Κατάλογος των Φορέων Υλοποίησης των παρεμβάσεων του ΣΑΑ ανά κατηγορία και τύπο και με στοιχεία των αρμόδιων Φορέων Παρακολούθησης, όπου αυτοί έχουν οριστεί, παρατίθεται στο Παράρτημα ΙΙΙ.

2.7.2 Ρόλος και αρμοδιότητες Φορέων Υλοποίησης

Ρόλος των Φορέων Υλοποίησης (ΦΥ) είναι η υλοποίηση των παρεμβάσεων ευθύνης τους, σε συμφωνία με τις δεσμεύσεις του εγκεκριμένου ΣΑΑ, και με την εφαρμογή της ισχύουσας εθνικής και ενωσιακής νομοθεσίας.

Οι αρμοδιότητες των ΦΥ συνοψίζονται στα ακόλουθα:

- Υλοποίηση των παρεμβάσεων ευθύνης τους, σύμφωνα με το χρονοδιάγραμμα και τις δεσμεύσεις του εγκεκριμένου ΣΑΑ και επιλογή αναδόχων ή τελικών αποδεκτών ενισχύσεων σύμφωνα με την εθνική και ευρωπαϊκή νομοθεσία
- Παροχή όλων των απαραίτητων πληροφοριών, προς την ΣΑ ή τον αρμόδιο ΦΠ, εφόσον έχει οριστεί, για την πρόοδο όλων των σταδίων υλοποίησης και ειδικά την πρόοδο της επίτευξης των στόχων και οροσήμων των παρεμβάσεων ευθύνης τους, καθώς και για περιπτώσεις

³ Κάθε επένδυση ή μεταρρύθμιση μπορεί να περιλαμβάνει περισσότερα του ενός έργα ή Σχέδια Χορηγιών, ιδίως όταν πρόκειται για συμπληρωματικά ή αλληλεξαρτώμενα έργα/σχέδια που οδηγούν στην επίτευξη κοινών στόχων και οροσήμων του ΣΑΑ.

παρατυπιών και υπονοιών απάτης, διαφθοράς και σύγκρουσης συμφερόντων που εντοπίζουν κατά την εκτέλεση των καθηκόντων τους, σύμφωνα με τις διαδικασίες του ΣΠΕ.

- Παρακολούθηση και επαλήθευση του φυσικού και οικονομικού αντικειμένου των παρεμβάσεων ευθύνης τους
- Εντοπισμός κινδύνων καθυστερήσεων και θεμάτων προς επίλυση και ενημέρωση των αρμόδιων φορέων για την αντιμετώπισή τους, καθώς και της ΣΑ ή του ΦΠ, εάν έχει οριστεί
- Υποδοχή όλων των εθνικών και ευρωπαϊκών ελεγκτικών οργάνων και διευκόλυνσή τους στην άσκηση των καθηκόντων τους
- Συμμόρφωση σε τυχόν υποδείξεις για διορθωτικές ενέργειες από οποιοδήποτε εθνικό ή ευρωπαϊκό ελεγκτικό όργανο
- Ενημέρωση του ΠΣΠ με τα δεδομένα και έγγραφα των παρεμβάσεων ευθύνης τους, σύμφωνα με τα οριζόμενα στις διαδικασίες του ΣΠΕ.

Σύμφωνα με το το Άρθρο 12 του περί της Δημοσιονομικής Ευθύνης και του Δημοσιονομικού Πλαισίου Νόμου Ν.20(Ι)/2014, οι προϊστάμενοι των ΦΥ Κεντρικής Κυβέρνησης εποπτεύουν την υλοποίηση του προϋπολογισμού των ΦΥ που είναι κάτω από την αρμοδιότητά τους.

Την τελική ευθύνη για τη διασφάλιση της ορθολογικής διαχείρισης των δημόσιων οικονομικών από τις οντότητες Γενικής Κυβέρνησης έχει ο Υπουργός Οικονομικών, σε συνεργασία με τους αρμόδιους Υπουργούς, μέσω της άσκησης των αρμοδιοτήτων του που προβλέπονται από τις διατάξεις του Ν. 20(Ι)/2014 και οποιουδήποτε άλλου σχετικού νόμου.

2.8 Ελεγκτικοί Φορείς

2.8.1 Ελεγκτικοί Μηχανισμοί Φορέων Υλοποίησης

Οι Φορείς Υλοποίησης, πέραν του ρόλου και των αρμοδιοτήτων τους για την υλοποίηση των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ (βλ. παρ. 2.7.2), διαθέτουν και **εσωτερικούς μηχανισμούς για την εκ των προτέρων επαλήθευση και τον έλεγχο** (ex ante controls) της υλοποίησης των παρεμβάσεων ευθύνης τους.

Η οργάνωση του Ελεγκτικού Μηχανισμού κάθε ΦΥ Κεντρικής Κυβέρνησης (ΚΚ) διαρθρώνεται ως εξής:

- Προϊστάμενος Οικονομικού Φορέα
- Ελέγχων Λειτουργός
- Αρμόδιος Λειτουργός (συμπεριλαμβανομένων ομάδων έργου, Επιτροπών Παραλαβής)
- Διευθύνσεις Χρηματοοικονομικής Διαχείρισης του ΓΛτΔ που είναι τοποθετημένες σε κάθε Υπουργείο

- Γραμματειακό προσωπικό του Λογιστηρίου του ΦΥ που υποστηρίζει τις ΔΧΔ.

Ένα τυπικό οργανόγραμμα Ελεγκτικού Μηχανισμού ΦΥ ΚΚ δίνεται στο Παράρτημα Ι του παρόντος εγγράφου (οργανόγραμμα Νο 4).

Στις παραγράφους που ακολουθούν, παρουσιάζονται τα όργανα που συμμετέχουν στους ελεγκτικούς μηχανισμούς των ΦΥ ΚΚ, με τις βασικές τους ελεγκτικές αρμοδιότητες.

2.8.1.1 Προϊστάμενος Οικονομικού Φορέα⁴

Οι προϊστάμενοι των οικονομικών φορέων, σύμφωνα με τον Νόμο που προνοεί περί της δημοσιονομικής ευθύνης και του δημοσιονομικού πλαισίου (Ν. 20(Ι)2014), τηρουμένων των σχετικών διατάξεων του Συντάγματος, έχουν τις ακόλουθες αρμοδιότητες:

(α) συμμετέχουν στην ετοιμασία της δημοσιονομικής πολιτικής, με την προσκόμιση πληροφοριών, κατόπιν διαβούλευσης με τον Υπουργό Οικονομικών·

(β) συμμετέχουν στην κατάρτιση του Προϋπολογισμού με την υποβολή εκτιμήσεων και προτάσεων κατόπιν διαβούλευσης με τον Υπουργό Οικονομικών·

(γ) αξιολογούν τις επενδύσεις και μεταρρυθμίσεις των οικονομικών φορέων που είναι κάτω από την αρμοδιότητά τους και των τμημάτων τους, σύμφωνα με τον παρόντα Νόμο και οποιοδήποτε άλλο νόμο·

(δ) εποπτεύουν την υλοποίηση του προϋπολογισμού των οικονομικών φορέων που είναι κάτω από την αρμοδιότητά τους, έτσι ώστε να διασφαλίζουν ότι τέτοια υλοποίηση –

(i) εμπίπτει στα πλαίσια των πιστώσεων του προϋπολογισμού τους· και

(ii) δεν αποκλίνει από τους δημοσιονομικούς κανόνες και πολιτική·

(ε) μεταφέρουν πιστώσεις του Προϋπολογισμού, σύμφωνα με τις διατάξεις του άρθρου 63, διασφαλίζοντας την αποτελεσματική διαχείριση του προϋπολογισμού τους, ώστε να συνάδει με τους δημοσιονομικούς κανόνες και πολιτική·

(στ) συντάσσουν και υποβάλλουν στον Υπουργό Οικονομικών μηνιαίες εκθέσεις αναφορικά με την υλοποίηση του προϋπολογισμού τους και των τμημάτων τους, σύμφωνα με τις διατάξεις του εδαφίου (2) του άρθρου 60· και

(ζ) εποπτεύουν τους Ελέγχοντες Λειτουργούς των υπουργείων και των τμημάτων τους και διασφαλίζουν τους απαραίτητους πόρους για την εύρυθμη λειτουργία τους.

2.8.1.2 Ελέγχων Λειτουργός

Ο Ελέγχων Λειτουργός, σύμφωνα με τον Περί της Δημοσιονομικής Ευθύνης και του Δημοσιονομικού Πλαισίου Νόμο (Ν. 20(Ι)2014) ορίζεται στον εκάστοτε περί Προϋπολογισμού Νόμο

⁴ «προϊστάμενος οικονομικού φορέα» σημαίνει τον υπουργό, στις περιπτώσεις υπουργείων και τμημάτων τους, τον επικεφαλής υπηρεσίας στις περιπτώσεις συνταγματικών υπηρεσιών και ανεξάρτητων υπηρεσιών και τους γενικούς διευθυντές ή τον Αρχιπρωτοκολλητή ή πρόσωπο σε παρόμοια θέση στις περιπτώσεις συνταγματικών εξουσιών (Ν. 20(Ι)2014)

και έχει τις αρμοδιότητες και ευθύνες που ορίζονται στο Άρθρο 13 του εν λόγω Νόμου, καθώς και στο Άρθρο 7 του Νόμου 38(Ι)/2014:

- εκτελεί τα καθήκοντα που προβλέπονται στον περί της Διαχείρισης των Εσόδων και Δαπανών και του Λογιστικού της Δημοκρατίας Νόμο και οποιαδήποτε άλλα καθήκοντα του ανατίθενται από τον προϊστάμενο του οικονομικού φορέα, για όλες τις παρεμβάσεις που υλοποιεί ο ΦΥ, περιλαμβανομένων και των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ·
- έχει την ευθύνη υλοποίησης του οικείου προϋπολογισμού στη βάση των αρχών της χρηστής χρηματοοικονομικής διαχείρισης, η οποία περιλαμβάνει την (i) Αρχή της Οικονομίας· (ii) Αρχή της Αποδοτικότητας· (iii) Αρχή της Αποτελεσματικότητας·
- αναπτύσσει και εφαρμόζει κατάλληλες δομές ώστε να εφαρμόζονται διαδικασίες ελέγχου που να διασφαλίζουν την ορθότητα και άμεση πληρωμή των δαπανών των υπό την ευθύνη τους επενδύσεων και μεταρρυθμίσεων του ΣΑΑ.
- καθοδηγεί το προσωπικό των ΔΧΔ του Γενικού Λογιστηρίου που είναι τοποθετημένο στους ΦΥ σε σχέση με χρηματοοικονομικά θέματα. Νοείται ότι, αυτό δεν εμποδίζει το προσωπικό των ΔΧΔ του Γενικού Λογιστηρίου να ακολουθεί τις λογιστικές οδηγίες, τις εγκυκλίους και τα πρότυπα που καθορίζει ο Γενικός Λογιστής.

Σε σχέση με την εκτέλεση κάθε είδους δέσμευσης⁵ στο πλαίσιο της υλοποίησης έργων, και επομένως και των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ ευθύνης του, ο Ελέγχων Λειτουργός:

- ορίζει και εποπτεύει τους Αρμόδιους Λειτουργούς που διαχειρίζονται τις επενδύσεις και μεταρρυθμίσεις του ΣΑΑ
- δίνει την τελική έγκριση για την καταβολή πληρωμών σε αναδόχους / προμηθευτές / τελικούς αποδέκτες ενισχύσεων από τις ΔΧΔ
- διασφαλίζει τη συμβατότητα των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ ευθύνης του με το σύνολο της ισχύουσας εθνικής και ευρωπαϊκής νομοθεσίας.

2.8.1.3 Αρμόδιος Λειτουργός

Οι αρμοδιότητες και τα καθήκοντα του Αρμόδιου Λειτουργού⁶ συνοψίζονται στα ακόλουθα:

- Επαλήθευση και παραλαβή (ή απόρριψη) του φυσικού και οικονομικού αντικειμένου των επενδύσεων/ μεταρρυθμίσεων του ΣΑΑ

⁵ «δέσμευση» σημαίνει, ρητή ή σιωπηρή, αλλά νομικά εκτελεστή σύμβαση ή συμφωνία για την πραγματοποίηση πληρωμών σε άλλο συμβαλλόμενο μέρος, με αντάλλαγμα την παράδοση αγαθών ή την παροχή υπηρεσιών ή για εκπλήρωση άλλων υποχρεώσεων, και περιλαμβάνει αλλά δεν περιορίζεται σε (α) συμφωνίες για διενέργεια πληρωμών, με αντάλλαγμα την προμήθεια συγκεκριμένων αγαθών ή υπηρεσιών, (β) συμφωνίες με συνεχιζόμενη πρόνοια, οι οποίες απαιτούν μια σειρά από πληρωμές για απροσδιόριστο χρονικό διάστημα, και (γ) οποιαδήποτε εκτελεστή απόφαση, η οποία προνοεί για την καταβολή πληρωμής (Ν.20(Ι)2014). (Στις περιπτώσεις σχεδίων χορηγιών σημαίνει τη Συμφωνία Χρηματοδότησης).

⁶ Σύμφωνα με την ΚΔΠ 138/2016

- Έλεγχος/ πιστοποίηση της νομιμότητας και κανονικότητας των διαδικασιών που ακολουθήθηκαν για τη διενέργεια κάθε δαπάνης
- Έλεγχος/ πιστοποίηση ότι έχουν εξασφαλιστεί όλες οι απαραίτητες εγκρίσεις, εκεί όπου χρειάζεται (π.χ. εγκρίσεις Υπουργείου Οικονομικών, Κεντρικής Επιτροπής Αλλαγών και Απαιτήσεων, Τμηματικής Επιτροπής Αλλαγών και Απαιτήσεων)

2.8.1.4 Διευθύνσεις Χρηματοοικονομικής Διαχείρισης του ΓΛΤΔ

Αρμοδιότητες και εξουσίες του Γενικού Λογιστή.

Τηρουμένων των διατάξεων της παραγράφου 1 του άρθρου 127 του Συντάγματος, ο Γενικός Λογιστής διευθύνει και επιβλέπει όλες τις λογιστικές εργασίες, τις σχετικές με τα χρηματικά διαθέσιμα και τα άλλα στοιχεία του ενεργητικού των οποίων η διαχείριση γίνεται από τη Δημοκρατία και προς τις υποχρεώσεις που αναλήφθηκαν από τη Δημοκρατία ή για λογαριασμό της και δέχεται και διενεργεί οποιαδήποτε πληρωμή χρημάτων της Δημοκρατίας.

Για εκπλήρωση των υποχρεώσεων του, δυνάμει του εδαφίου (1), ο Γενικός Λογιστής εκτελεί τέτοια καθήκοντα, όπως καθορίζονται από τις διατάξεις του Νόμου 20(Ι)/2014 και του Νόμου 38(Ι)/2014, όπως αυτοί εκάστοτε τροποποιούνται ή αντικαθίστανται και οποιοδήποτε άλλο νόμο.

Ο Γενικός Λογιστής, προχώρησε στη σύσταση των Διευθύνσεων Χρηματοοικονομικής Διαχείρισης (ΔΧΔ) σε κάθε Υπουργείο.

Οι αρμοδιότητες των **ΔΧΔ του ΓΛΤΔ που τοποθετούνται σε κάθε Υπουργείο**, και ειδικότερα των Μονάδων Λογιστικής Εργασίας και Συμμόρφωσης που υπάγονται σε αυτές, συνοψίζονται στα ακόλουθα:

- Διεκπεραίωση πληρωμών, μετά την έγκριση του Ελέγχοντα Λειτουργού, σε αναδόχους / προμηθευτές / τελικούς αποδέκτες ενισχύσεων, με την υποστήριξη του γραμματειακού προσωπικού του Λογιστηρίου του ΦΥ
- Καθοδήγηση και κατάρτιση του γραμματειακού προσωπικού των Λογιστηρίων των ΦΥ
- Διασφάλιση της συμμόρφωσης του Υπουργείου και των Τμημάτων / Υπηρεσιών με το σχετικό νομοθετικό και κανονιστικό πλαίσιο που διέπει τη λογιστική εργασία.

2.8.2 Υπηρεσία Εσωτερικού Ελέγχου (ΥΕΕ)

2.8.2.1 Ρόλος και αρμοδιότητες ΥΕΕ

Η **Υπηρεσία Εσωτερικού Ελέγχου**, της οποίας προΐσταται ο **Έφορος Εσωτερικού Ελέγχου** συστάθηκε με τον περί Εσωτερικού Ελέγχου Νόμο του 2003 [Ν. 114(Ι)/2003].

Η Υπηρεσία είναι η αρμόδια κεντρική αρχή για τη διενέργεια του εσωτερικού ελέγχου στη Δημόσια Υπηρεσία, με την παροχή ανεξάρτητης, αντικειμενικής και συμβουλευτικής δραστηριότητας, που να προσθέτει αξία στον ελεγχόμενο οργανισμό, μέσω της βελτίωσης της λειτουργίας των συστημάτων

διαχείρισης και ελέγχου και της αποτελεσματικότητας των διαδικασιών διαχείρισης κινδύνων και διακυβέρνησης. Η Υπηρεσία και ο Έφορος Εσωτερικού Ελέγχου είναι ανεξάρτητοι από τις Διευθύνσεις των ελεγχόμενων οργανισμών.

Ο ρόλος της ΥΕΕ είναι συμβουλευτικός προς τις διευθύνσεις των Υπουργείων/ Υφυπουργείων/ Τμημάτων/ Υπηρεσιών, για την εφαρμογή των κατάλληλων διαδικασιών, έτσι ώστε η λειτουργία της Δημόσιας Υπηρεσίας να γίνεται πιο παραγωγική και να είναι προσανατολισμένη σε αποτελέσματα, διασφαλίζοντας την ορθή διαχείριση και εξοικονόμηση του δημόσιου χρήματος.

Σύμφωνα με το άρθρο 5 του περί Εσωτερικού Ελέγχου Νόμου του 2003 και 2014, ο Έφορος Εσωτερικού Ελέγχου «είναι αρμόδιος για τη διενέργεια του εσωτερικού ελέγχου για όλους τους ελεγχόμενους οργανισμούς. Για το σκοπό αυτό ο Έφορος έχει εξουσία να –

- i. εξετάζει και να αξιολογεί την επάρκεια και αποτελεσματικότητα των συστημάτων εσωτερικού ελέγχου.*
- ii. εξετάζει και να αξιολογεί τα συστήματα που έχουν καθοριστεί για να διασφαλιστεί η συμμόρφωση με πολιτικές, σχεδιασμούς και διαδικασίες, νομικές υποχρεώσεις και κανονισμούς.*
- iii. εξετάζει και να αξιολογεί τον τρόπο διαχείρισης των υποχρεώσεων, τον τρόπο διασφάλισης των στοιχείων ενεργητικού και επαλήθευσης της ύπαρξης τέτοιων στοιχείων.*
- iv. εξετάζει και να αξιολογεί την οικονομικότητα, αποδοτικότητα και αποτελεσματικότητα των διάφορων δραστηριοτήτων και διαδικασιών.*
- v. εξετάζει τη λειτουργία των προγραμμάτων, σχεδίων, δραστηριοτήτων για να εξακριβωθεί εάν τα αποτελέσματα τους είναι συμβατά με τους καθορισμένους στόχους και σκοπούς και εάν οι εργασίες ή τα προγράμματα εκτελούνται όπως είχαν προγραμματιστεί.*
- vi. αξιολογεί την επάρκεια των καθορισμένων συστημάτων διαχείρισης και ελέγχου*
- vii. παρέχει συμβουλές για τα κατάλληλα συστήματα ελέγχου και για άλλα λογιστικά και λειτουργικά θέματα.*
- viii. αξιολογεί την αξιοπιστία, σχετικότητα και ακεραιότητα της οικονομικής και λειτουργικής πληροφόρησης.*
- ix. διεξάγει ειδικές μελέτες και ελέγχους για οποιοδήποτε θέμα που επηρεάζει την ακεραιότητα, τα συμφέροντα, την απώλεια εσόδων και τη λειτουργική αποδοτικότητα του ελεγχόμενου οργανισμού*
- x. αξιολογεί την ποιότητα της διαδικασίας λήψης αποφάσεων και του περιβάλλοντος πληροφοριών.*
- xi. οποιαδήποτε άλλη εργασία εμπίπτει στα πλαίσια του εσωτερικού ελέγχου.»*

Βάσει των πιο πάνω αρμοδιοτήτων, η Υπηρεσία θα διεξάγει και ελέγχους στο ΣΠΕ του ΣΑΑ, ως εξής:

A) Εσωτερικό έλεγχο, βάσει ετήσιου προγράμματος, με ειδικό άξονα για τους φορείς υλοποίησης των παρεμβάσεων του ΣΑΑ

Β) Έλεγχο συστημάτων (system audit) των πρόσθετων φορέων που δημιουργήθηκαν για την εφαρμογή του ΣΑΑ (ΣΑ, ΦΠ)

Γ) Επιπρόσθετο έλεγχο επαλήθευσης στόχων και οροσήμων του ΣΑΑ σε επίπεδο ΣΑ

Επιπρόσθετα, σύμφωνα με το άρθρο 12 του Ν. 114(Ι)/2003, αν, στα πλαίσια του ελέγχου, αποκαλυφθούν περιστάσεις που εγείρουν υποψίες για πιθανή απάτη ή παρατυπία ή σημαντική ζημιά στα στοιχεία ενεργητικού του ελεγχόμενου οργανισμού ή του κράτους, ο Έφορος απαιτείται να δράσει άμεσα για να σταματήσει τέτοια δραστηριότητα. Σε τέτοια περίπτωση, θα ετοιμάζεται μια ειδική έκθεση, η οποία θα κοινοποιείται έγκαιρα στις κατά περίπτωση αρμόδιες αρχές.

Πέραν των πιο πάνω και όσον αφορά τις παρεμβάσεις του ΣΑΑ, εάν στα πλαίσια του ελέγχου, αποκαλυφθούν περιστάσεις που εγείρουν υποψίες για πιθανή απάτη, διαφθορά, σύγκρουση συμφερόντων, ή παρατυπία ή σημαντική ζημιά στα στοιχεία ενεργητικού του ελεγχόμενου οργανισμού ή του κράτους, η ειδική έκθεση θα αποστέλλεται στη ΣΑ και στον Εθνικό Φορέα για την Καταπολέμηση της Απάτης κατά των συμφερόντων της Ευρωπαϊκής Ένωσης (AFCOS).

Ο Έφορος Εσωτερικού Ελέγχου, σύμφωνα με το άρθρο 80(4) του Ν.20(Ι)/2014, καθορίζει τα πρότυπα εσωτερικού ελέγχου, τα οποία εφαρμόζει η Υπηρεσία Εσωτερικού Ελέγχου.

2.8.2.2 Οργάνωση και στελέχωση ΥΕΕ

Η ΥΕΕ διαρθρώνεται ως ακολούθως:

- Έφορος Εσωτερικού Ελέγχου της Δημοκρατίας
- Τμήμα Διοίκησης
- Τομέας Εσωτερικού Ελέγχου Κρατικών Υπηρεσιών
- Τομέας Ελέγχου Συγχρηματοδοτούμενων Προγραμμάτων της Ευρωπαϊκής Ένωσης

Η δραστηριότητα διεξαγωγής εσωτερικού ελέγχου σε επενδύσεις/ μεταρρυθμίσεις του ΣΑΑ θα αναληφθεί από τον Τομέα Εσωτερικού Ελέγχου Κρατικών Υπηρεσιών ως τον καθ' ύλην αρμόδιο Τομέα για τη διεξαγωγή εσωτερικού ελέγχου σε συστήματα διαχείρισης και ελέγχου στη Δημόσια Υπηρεσία.

Ο συνολικός αριθμός Λειτουργών Εσωτερικού Ελέγχου όλων των ιεραρχικών βαθμίδων, που απασχολούνται στον Τομέα Εσωτερικού Ελέγχου, ανέρχεται σήμερα σε δεκατρείς (13) [Πρώτος Λειτουργός (1), Ανώτερος Λειτουργός (1), Λειτουργοί Εσωτερικού Ελέγχου Α' (3), Λειτουργοί Εσωτερικού Ελέγχου (8)].

Το Υπουργικό Συμβούλιο, αναγνωρίζοντας τη σημασία της Υπηρεσίας Εσωτερικού Ελέγχου για τη Δημοκρατία, αποφάσισε στις 23 Μαρτίου 2021, να την ενισχύσει περαιτέρω με επιπλέον πέντε (5) Λειτουργούς Εσωτερικού Ελέγχου και δύο (2) Λειτουργούς Εσωτερικού Ελέγχου Α' στο άμεσο μέλλον. Οι λειτουργοί αυτοί θα απασχοληθούν στον Τομέα Εσωτερικού Ελέγχου Κρατικών Υπηρεσιών. Βάσει των πιο πάνω, αναμένεται ότι όλοι οι Λειτουργοί του Τομέα Εσωτερικού Ελέγχου Κρατικών Υπηρεσιών θα απασχοληθούν και με τη διεξαγωγή εσωτερικού ελέγχου σε παρεμβάσεις του ΣΑΑ. Επιπρόσθετα, αμέσως μετά την οριστικοποίηση του ΣΑΑ και του χρονικού προγραμματισμού των παρεμβάσεών του, θα αξιολογηθεί η ανάγκη για πρόσληψη νέου έκτακτου προσωπικού ορισμένου χρόνου ή για την αγορά υπηρεσιών για την υποστήριξη του έργου της ΥΕΕ στο πλαίσιο του ΣΑΑ.

Στον πιο κάτω Πίνακα παρουσιάζονται ο αριθμός των Λειτουργιών του Τομέα Εσωτερικού Ελέγχου Κρατικών Υπηρεσιών και τα προσόντα τους, όπως αυτά εγκρίθηκαν στον προϋπολογισμό του 2021:

	Position	No. of Staff as per approved Budget	Qualifications
1	Internal Audit Officers	8	Bachelors/Masters Degrees, Qualified Accountants, Internal Audit
2	Internal Audit Officer A'	3	Bachelors/Masters Degrees, Qualified Accountants, Internal Audit, Fraud Examiner
3	Senior Internal Audit Officer	1	Bachelors/Masters Degrees, Qualified Accountants, Internal Audit
4	Chief Internal Audit Officer	1	Bachelors/Masters Degrees, Qualified Accountants, Internal Audit Professional Qualifications
	Total	13	

Όλο το προσωπικό εσωτερικού ελέγχου διαθέτει πτυχία πανεπιστημίου ή / και κατάλληλα επαγγελματικά προσόντα. Η πλειοψηφία αυτών είναι ειδικευμένοι Λογιστές (είτε μέλη του Ινστιτούτου Ορκωτών Λογιστών στην Αγγλία και Ουαλία, είτε της Ένωσης Ορκωτών Λογιστών) και επίσης μέλη του Συνδέσμου Εγκεκριμένων Λογιστών Κύπρου (ΣΕΛΚ). Σημαντικό μέρος του προσωπικού είναι πιστοποιημένοι ως Εσωτερικοί Ελεγκτές, Ελεγκτές Απάτης (Fraud Examiners) και ελεγκτές Τεχνολογιών Πληροφορικής (IT Audit).

Επιπλέον, σχεδόν όλοι έχουν προηγούμενη ελεγκτική εμπειρία στον ιδιωτικό και δημόσιο τομέα και έχουν επίσης την εμπειρία των τρεχουσών και προηγούμενων περιόδων προγραμματισμού όσον αφορά τον έλεγχο των συγχρηματοδοτούμενων προγραμμάτων, όπου η Υπηρεσία Εσωτερικού Ελέγχου ενεργεί επίσης ως Αρχή Ελέγχου.

Η Υπηρεσία έχει επίσης απονεμηθεί το καθεστώς Εγκεκριμένου Εργοδότη Συνεχούς Επαγγελματικής Ανάπτυξης από την Ένωση Ορκωτών Λογιστών από το 2010. Από αυτή την άποψη, η Υπηρεσία παρέχει συνεχείς ευκαιρίες εκπαίδευσης και ανάπτυξης σε όλους τους υπαλλήλους της κάθε χρόνο.

Το οργανόγραμμα της Υπηρεσίας Εσωτερικού Ελέγχου δίνεται στο Παράρτημα Ι του παρόντος εγγράφου (οργανόγραμμα Νο 5).

2.8.3 Ελεγκτική Υπηρεσία της Κυπριακής Δημοκρατίας

2.8.3.1 Ρόλος και αρμοδιότητες Ελεγκτικής Υπηρεσίας

Βάσει του άρθρου 115 του Συντάγματος της Κυπριακής Δημοκρατίας ο Πρόεδρος και ο Αντιπρόεδρος της Δημοκρατίας διορίζουν από κοινού δύο ικανά και κατάλληλα πρόσωπα ως Γενικό Ελεγκτή και Βοηθό Γενικού Ελεγκτή. Ο Γενικός Ελεγκτής είναι προϊστάμενος της **Ελεγκτικής Υπηρεσίας της Δημοκρατίας** και ο Βοηθός Γενικού Ελεγκτή έπεται αυτού. Η Ελεγκτική Υπηρεσία της

Δημοκρατίας είναι ανεξάρτητη υπηρεσία της Δημοκρατίας και μη υπαγόμενη σε οποιοδήποτε Υπουργείο.

Ρόλος της Ελεγκτικής Υπηρεσίας είναι η διενέργεια ανεξάρτητου, αξιόπιστου και τεκμηριωμένου οικονομικού, διαχειριστικού και κανονιστικού ελέγχου (ex post external audit) στον δημόσιο και ευρύτερο δημόσιο τομέα, για σκοπούς δημόσιου απολογισμού, βέλτιστης διαχείρισης των δημόσιων πόρων και καταπολέμησης φαινομένων διαφθοράς και διαπλοκής. Τον ρόλο αυτό ασκεί και για τις παρεμβάσεις του ΣΑΑ και τους φορείς που εμπλέκονται στην υλοποίηση και παρακολούθηση του ΣΠΕ.

Το άρθρο 116 του Συντάγματος της Κυπριακής Δημοκρατίας ορίζει ότι ο Γενικός Ελεγκτής ελέγχει, εν ονόματι της Δημοκρατίας, όλες τις εισπράξεις και πληρωμές και όλους τους λογαριασμούς χρηματικών διαθεσίμων και άλλου ενεργητικού ή άλλων υποχρεώσεων που αναλαμβάνει η Δημοκρατία ή που δημιουργούνται για λογαριασμό της. Για τον σκοπό αυτό, ο Γενικός Ελεγκτής έχει δικαίωμα να επιθεωρεί και να ελέγχει όλα τα σχετικά βιβλία, αρχεία και καταστάσεις, καθώς και τους χώρους όπου φυλάγεται το πιο πάνω ενεργητικό. Επίσης, ο Γενικός Ελεγκτής ασκεί κάθε άλλη εξουσία ή εκτελεί οποιαδήποτε άλλα καθήκοντα ή υποχρεώσεις που καθορίζονται ή του ανατίθενται διά Νόμου.

Σύμφωνα με το άρθρο 81 του περί της Δημοσιονομικής Ευθύνης και του Δημοσιονομικού Πλαισίου Νόμου (Ν.20(I)/2014), ο Γενικός Ελεγκτής διεξάγει τον εξωτερικό έλεγχο των λογαριασμών της Δημοκρατίας. Σύμφωνα με το άρθρο 81(2) ο Γενικός Ελεγκτής διεξάγει τον εξωτερικό έλεγχο στη βάση διεθνώς αναγνωρισμένων προτύπων ελέγχου που ο ίδιος αποφασίζει.

Όπως ρητά αναφέρεται στις Ελεγκτικές Οδηγίες που έχουν εκδοθεί από τον Γενικό Ελεγκτή, οι έλεγχοι της Ελεγκτικής Υπηρεσίας διεξάγονται σύμφωνα με τα Διεθνή Πρότυπα Ελέγχου (ISAs) που εκδίδονται από τη Διεθνή Ομοσπονδία Λογιστών (IFAC) και τα Διεθνή Πρότυπα Ελέγχου Ανώτατων Ελεγκτικών Ιδρυμάτων (ISSAIs) που εκδίδει ο Διεθνής Οργανισμός Ανώτατων Ελεγκτικών Ιδρυμάτων (INTOSAI), ο οποίος είναι ένας αυτόνομος, ανεξάρτητος, μη-πολιτικοποιημένος Οργανισμός, με ειδικό συμβουλευτικό καθεστώς προς το Οικονομικό και Κοινωνικό Συμβούλιο (ECOSOC) του Οργανισμού Ηνωμένων Εθνών.

Τα ISSAIs διαχωρίζουν τους ελέγχους που διενεργούνται από τα Ανώτατα Ελεγκτικά Ιδρύματα σε τρεις κατηγορίες, τους οικονομικούς ελέγχους (“financial audit”), τους ελέγχους συμμόρφωσης (“compliance audit”) και τους διαχειριστικούς ελέγχους (“performance audit”). Για τους ελέγχους αυτούς υπάρχει αριθμός ελεγκτικών προτύπων που είναι κοινά και αριθμός ελεγκτικών προτύπων που αφορούν ειδικά στην κάθε κατηγορία ελέγχου.

Σύμφωνα με τον περί της Λογιστικής και Δημοσιονομικής Διαχείρισης και Χρηματοοικονομικού Ελέγχου της Δημοκρατίας Νόμο (Ν.38(I)/2014), ο ελέγχων λειτουργός κάθε Κονδυλίου οφείλει να διασφαλίσει την ορθότητα και νομιμότητα των εισπράξεων και πληρωμών και την αποτελεσματικότητα, αποδοτικότητα και οικονομία της υλοποίησης του οικείου Προϋπολογισμού, στη βάση των αρχών της χρηστής χρηματοοικονομικής διαχείρισης (άρθρα 7(1) και 8). Για τον σκοπό αυτό, η Ελεγκτική Υπηρεσία προχωρεί σε οικονομικούς και διαχειριστικούς ελέγχους, όπως και ελέγχους συμμόρφωσης Υπουργείων, Τμημάτων και Υπηρεσιών της Δημόσιας Υπηρεσίας και του ευρύτερου δημόσιου τομέα.

Ο περί της Καταθέσεως Στοιχείων και Πληροφοριών στον Γενικό Ελεγκτή της Δημοκρατίας Νόμος (Ν.113(Ι)/2002) παρέχει σαφείς εξουσίες στον Γενικό Ελεγκτή να ζητά στοιχεία σε οποιαδήποτε μορφή, περιλαμβανομένης και της ηλεκτρονικής μορφής, επεξηγήσεις και πληροφορίες, γραπτές ή προφορικές, που κατά την κρίση του μπορούν να τον υποβοηθήσουν στην εκτέλεση του έργου του.

2.8.3.2 Οργάνωση και στελέχωση Ελεγκτικής Υπηρεσίας

Η ΕΥ διαρθρώνεται ως ακολούθως:

- Γενικός Ελεγκτής
- Βοηθός Γενικού Ελεγκτή
- Διοίκηση
- Αρχείο
- Λογιστήριο
- Μονάδα Μεθοδολογίας και Ποιοτικού Ελέγχου
- Διευθύνσεις Ελέγχου

Στον έλεγχο των επενδύσεων/ μεταρρυθμίσεων του ΣΑΑ εμπλέκεται το σύνολο των ως άνω Οργανωτικών Οντοτήτων. Επιπρόσθετα, αμέσως μετά την οριστικοποίηση του ΣΑΑ και του χρονικού προγραμματισμού των παρεμβάσεων του, θα αξιολογηθεί η ανάγκη για πρόσληψη νέου έκτακτου προσωπικού ορισμένου χρόνου ή για την αγορά υπηρεσιών για την υποστήριξη του έργου της ΕΥ στο πλαίσιο του ΣΑΑ.

Το στελεχιακό δυναμικό της ΕΥ είναι πολυπληθές, εξειδικευμένο και με μεγάλη εμπειρία στην άσκηση των αρμοδιοτήτων σε φορείς και έργα που χρηματοδοτούνται τόσο από τον Κρατικό Προϋπολογισμό όσο και με συγχρηματοδότηση από ευρωπαϊκά ταμεία. Πιο συγκεκριμένα, το πλήθος και το προφίλ των στελεχών της ΕΥ έχει ως εξής:

Πλήθος Στελεχών:

- Συνολικό Πλήθος: 135
- Πλήθος Ελεγκτών: 117
- Πλήθος Στελεχών Υποστήριξης: 18

Προφίλ Στελεχικού Δυναμικού:

- Εξειδικευμένοι Λογιστές: 57 (εκ των οποίων 16 είναι έκτακτοι)
- Μηχανικοί: 11
- Εξειδικευμένοι σε θέματα Πληροφορικής: 8
- Θεματική Εξειδίκευση: Από μερικούς μήνες έως 39 έτη
- Εμπειρογνώμονες: Ελεγκτές με εξειδίκευση στα οικονομικά, έλεγχο συμμόρφωσης και επιδόσεων, καθώς και τεχνικούς ελέγχους (Ειδικευμένοι Λογιστές, Μηχανικοί και εκπαιδευμένο προσωπικό πληροφορικής).

Το οργανόγραμμα της Ελεγκτικής Υπηρεσίας δίνεται στο Παράρτημα Ι του παρόντος εγγράφου (οργανόγραμμα Νο 6).

2.9 Φορείς Πρόληψης, Ανίχνευσης και Αντιμετώπισης Κινδύνων Διαφθοράς, Απάτης και Συγκρούσεων Συμφερόντων

2.9.1 Εθνικός Συντονιστικός Φορέας για την καταπολέμηση της απάτης κατά των συμφερόντων της Ευρωπαϊκής Ένωσης (AFCOS)

Ο *Εθνικός Συντονιστικός Φορέας για την καταπολέμηση της απάτης κατά των συμφερόντων της Ευρωπαϊκής Ένωσης* (στο εξής: AFCOS), συστάθηκε βάσει της Απόφασης του Υπουργικού Συμβουλίου με αρ.56.370 και ημερομηνία 12/9/2002. Επιπρόσθετα, σύμφωνα με την Απόφαση του Υπουργικού Συμβουλίου με αρ.61.895 και ημερομηνίας 21/4/2005, Το Γενικό Λογιστήριο της Δημοκρατίας, ορίστηκε ως «Σημείο επαφής» του Φορέα με την Ευρωπαϊκή Υπηρεσία Καταπολέμησης της Απάτης (στο εξής: OLAF) για σκοπούς υποβολής των Εκθέσεων Παρατυπιών.

Ο AFCOS, σύμφωνα με τις ανωτέρω Υπουργικές Αποφάσεις, έχει:

- την Γενική Λογίστρια ως πρόεδρο, και αποτελείται από τα ακόλουθα μέλη, ή εκπροσώπους τους:
- τον Γενικό Εισαγγελέα,
- τον Γενικό Ελεγκτή,
- τον Αρχηγό της Αστυνομίας,
- τον Επίτροπο Κυπριακού Οργανισμού Πληρωμών,
- τον Γενικό Διευθυντή της Γενικής Διεύθυνσης Ευρωπαϊκών Προγραμμάτων, Συντονισμού και Ανάπτυξης,
- τον Έφορο Εσωτερικού Ελέγχου,
- τον Διευθυντή Τμήματος Τελωνείων.

Ο AFCOS έχει τις ακόλουθες αρμοδιότητες και εξουσίες:

- Εξαιρουμένου του περί εφαρμογής του Κανονισμού (ΕΕ) αριθ. 2017/1939 του Συμβουλίου της 12^{ης} Οκτωβρίου 2017, σχετικά με την εφαρμογή Ενισχυμένης Συνεργασίας για τη Σύσταση της Ευρωπαϊκής Εισαγγελίας (EPPO), έχει οριστεί ως η Αρμόδια Αρχή, σε εθνικό επίπεδο, όσον αφορά τον συντονισμό της καταπολέμησης της **απάτης**, της **διαφθοράς**, της **σύγκρουσης συμφερόντων** και **κάθε άλλης παράνομης δραστηριότητας**, που λαμβάνει χώρα σε διεθνές επίπεδο, η οποία μπορεί να πλήττει τα οικονομικά συμφέροντα της Ευρωπαϊκής Ένωσης.

- Συνεργάζεται με την Ευρωπαϊκή Υπηρεσία Καταπολέμησης της Απάτης (OLAF) και την υποστηρίζει στην αποτελεσματική εκτέλεση των καθηκόντων της.
- Συντονίζει τις άλλες αρμόδιες αρχές της Κυπριακής Δημοκρατίας για σκοπούς εφαρμογής του ευρωπαϊκού κανονιστικού πλαισίου που αφορά στις έρευνες που πραγματοποιούνται από την OLAF με σκοπό την προστασία των οικονομικών συμφερόντων της Ένωσης⁷.
- Κατόπιν σχετικής αίτησης της OLAF, παρέχει στους υπαλλήλους της Υπηρεσίας, σύμφωνα με τις εθνικές διατάξεις, την αναγκαία υποστήριξη για την αποτελεσματική εκτέλεση των καθηκόντων τους, λαμβάνει τα κατάλληλα προληπτικά μέτρα ή άλλα μέτρα σύμφωνα με την οικεία νομοθεσία, σε συνεργασία με τις άλλες αρμόδιες αρχές, κυρίως για τη διαφύλαξη αποδεικτικών στοιχείων, σύμφωνα με την παράγραφο 7 του Άρθρου 7 του Κανονισμού (ΕΕ, Ευρατόμ) αριθ. 883/2013.
- Συνεργάζεται στενά με την OLAF για τη διεξαγωγή επιτόπιων ελέγχων και εξακριβώσεων στην Δημοκρατία και συμμετέχει αν το επιθυμεί στους επιτόπιους αυτούς ελέγχους και εξακριβώσεις ή/και οι επιτόπιοι έλεγχοι και εξακριβώσεις διενεργούνται από κοινού από τους υπαλλήλους της OLAF και του AFCOS, σύμφωνα με το άρθρο 4 του Κανονισμού (ΕΚ) Αριθ. 2185/96 (από κοινού έλεγχοι).
- Για τους σκοπούς εφαρμογής του Άρθρου 5 του Κανονισμού (Ευρατόμ, ΕΚ) Αριθ. 2185/96, εξουσιοδοτημένος λειτουργός του AFCOS, ο οποίος ορίζεται από τον AFCOS ανάλογα με το ζήτημα το οποίο διερευνούν οι εξουσιοδοτημένοι υπάλληλοι της OLAF, μαζί με εξουσιοδοτημένους υπαλλήλους της OLAF, δύνανται σε οποιοδήποτε εύλογο χρόνο, να εισέρχονται σε υποστατικά (με εξαίρεση κατοικία) και να επιθεωρούν και να ερευνούν το υποστατικό και να έχουν πρόσβαση σε αρχεία, έγγραφα ή στοιχεία (έστω και αν αυτά τηρούνται σε μηχανογραφημένη μορφή), σε περιπτώσεις εύλογης υποψίας για διάπραξη αδικημάτων απάτης, διαφθοράς ή σύγκρουσης συμφερόντων.
- Στα πλαίσια συγχρηματοδοτούμενων προγραμμάτων επιμερισμένης ευθύνης με την Ευρωπαϊκή Επιτροπή, και στο πλαίσιο του Σχεδίου Ανάκαμψης και Ανθεκτικότητας ενημερώνει την Ευρωπαϊκή Επιτροπή και την OLAF για περιπτώσεις παρατυπιών με υποψία απάτης, διαφθοράς ή σύγκρουσης συμφερόντων.

Επισημαίνεται ότι κατά την τρέχουσα περίοδο βρίσκεται υπό ετοιμασία ο «Περί του Εθνικού Συντονιστικού Φορέα για την Καταπολέμηση της Απάτης κατά των Οικονομικών Συμφερόντων της Ευρωπαϊκής Ένωσης Νόμος» στον οποίο πρόκειται να ενσωματωθούν οι ανωτέρω αρμοδιότητες του Φορέα βάσει των εν ισχύ Υπουργικών Αποφάσεων και του παρόντος ΣΠΕ.

2.9.2 Γενικός Εισαγγελέας της Δημοκρατίας και Αστυνομία

Οι συνταγματικές εξουσίες του Γενικού Εισαγγελέα όσον αφορά τις ποινικές διώξεις (στις οποίες εμπíπτουν και οι περιπτώσεις παρατυπιών με υπόνοια απάτης, διαφθοράς και σύγκρουσης συμφερόντων) οφείλονται στην ανάγκη ελέγχου και συντονισμού του μηχανισμού εφαρμογής του ποινικού δικαίου από ένα ανεξάρτητο και υπεύθυνο έναντι της Πολιτείας Δημόσιο Κατήγορο, προς

⁷ Κανονισμός (Ευρατόμ, ΕΚ) αριθ. 2185.96 και Κανονισμός (ΕΕ, Ευρατόμ) αριθ. 883.2013.

αποφυγή, μεταξύ άλλων, καταχρήσεως του δικαιώματος ιδιωτικής ποινικής δίωξης και για την αντικειμενικότερη και αρτιότερη απόδοση του συστήματος ποινικής δικαιοσύνης και την προστασία του δημοσίου συμφέροντος.

Οι περισσότερες ποινικές υποθέσεις προσάγονται ενώπιον του δικαστηρίου από τους δημόσιους κατηγορούς οι οποίοι υπάγονται επίσης στον Γενικό Εισαγγελέα και ενεργούν σύμφωνα με την νομική καθοδήγηση του Γραφείου του Γενικού Εισαγγελέα. Οι ποινικές δίωξεις που τυγχάνουν χειρισμού από Νομικούς Λειτουργούς του Γραφείου του Γενικού Εισαγγελέα αφορούν σε υποθέσεις του Κακουργιοδικείου και σε ορισμένες άλλες υποθέσεις όπου εγείρονται σοβαρά θέματα δημοσίας τάξεως.

Σύμφωνα με τις συνταγματικές διατάξεις, η εξουσία για τη θέσπιση, τη διεξαγωγή, τη συνέχιση ή τη διακοπή όλων των ποινικών δίωξεων ανήκει στον Γενικό Εισαγγελέα και στον Αναπληρωτή Γενικό Εισαγγελέα. Ωστόσο, η Αστυνομία είναι αυτή που επιλαμβάνεται πάντοτε της ανίχνευσης ενός εγκλήματος. Ο Γενικός Εισαγγελέας μπορεί να ζητήσει και αυτεπάγγελτα τη διερεύνηση εγκλήματος από την Αστυνομία, για να μπορέσει να αποφανθεί βάσει των περισυλλεγόντων από την αστυνομική έρευνα στοιχείων κατά πόσον δικαιολογείται η υπ' αυτού ποινική δίωξη οποιουδήποτε προσώπου. Στην περίπτωση αυτή, η Αστυνομία περισυλλέγει με έρευνες και ανακρίσεις, σύμφωνα με τις οδηγίες του Γενικού Εισαγγελέα, όλα τα σχετικά με το έγκλημα στοιχεία τα οποία έχουν ζητηθεί από αυτόν και τα θέτει ενώπιον του για να μπορέσει να αποφανθεί για την προσαγωγή της υπόθεσης ενώπιον του Δικαστηρίου και γενικά για την ακολουθητέα νομική διαδικασία. Το Γραφείο του Γενικού Εισαγγελέα καθοδηγεί την Αστυνομία κατά την εκτέλεση των καθηκόντων της και παρέχει σε αυτή την αναγκαία νομική βοήθεια.

Επιπρόσθετα, ως εκ της ιδιότητας του Γενικού Εισαγγελέα ως Νομικού Συμβούλου του Κράτους και ως Δημόσιου Κατήγορου εξουσιοδοτημένου όπως ελέγχει οποιαδήποτε ποινική διαδικασία, η Αστυνομία ζητεί πάντοτε την καθοδήγηση και βοήθειά του σε σχέση με οποιοδήποτε πρόβλημα το οποίο αυτή αντιμετωπίζει στην εκτέλεση των καθηκόντων της, προς εναρμόνιση των ενεργειών της προς το Νόμο και αποτελεσματικότερη άσκηση των λειτουργιών της.

Ο Γενικός Εισαγγελέας της Δημοκρατίας αποτελεί την αρμόδια αρχή για την εφαρμογή του Κανονισμού (ΕΕ) 2017/1939 και κοινοποιεί τις απαραίτητες πληροφορίες στην Ευρωπαϊκή Εισαγγελία, σύμφωνα με τις διατάξεις του άρθρου 117 του Κανονισμού και τις πρόνοιες του περί της Εφαρμογής του Κανονισμού (ΕΕ) 2017/1939 του Συμβουλίου, της 12ης Οκτωβρίου 2017, σχετικά με την Εφαρμογή Ενισχυμένης Συνεργασίας για τη Σύσταση της Ευρωπαϊκής Εισαγγελίας, Νόμος του 2021 (Ν. 2(Ι)/2021) (ΕΡΡΟ)⁸.

⁸ http://cyllaw.org/nomoi/indexes/2021_1_2.html

3 ΔΙΑΔΙΚΑΣΙΕΣ ΕΦΑΡΜΟΓΗΣ ΣΧΕΔΙΟΥ ΑΝΑΚΑΜΨΗΣ ΚΑΙ ΑΝΘΕΚΤΙΚΟΤΗΤΑΣ

3.1 Έναρξη και Προγραμματισμός Υλοποίησης Παρεμβάσεων του ΣΑΑ

3.1.1 Εισαγωγή

Για κάθε παρέμβαση του εγκεκριμένου ΣΑΑ, και σύμφωνα με τις απαιτήσεις του Κανονισμού του ΜΑΑ, έχουν οριστεί και προγραμματιστεί χρονικά (σε επίπεδο ημερολογιακού τριμήνου) συγκεκριμένοι στόχοι (targets) και ορόσημα (milestones) που σηματοδοτούν την πρόοδο υλοποίησης κάθε παρέμβασης και του ΣΑΑ ως συνολικού προγράμματος. Η τήρηση του χρονικού προγραμματισμού των στόχων και οροσήμων του εγκεκριμένου ΣΑΑ είναι εξαιρετικής σημασίας, καθώς με βάση την επίτευξη των προγραμματισμένων στόχων και οροσήμων πραγματοποιούνται και οι πληρωμές του κράτους-μέλους κατά τη διάρκεια εφαρμογής του προγράμματος.

Είναι, επομένως, εξαιρετικά σημαντικό, πριν την έναρξη της υλοποίησης κάθε παρέμβασης να διασφαλίζεται η πλήρωση όλων των προϋποθέσεων που θα οδηγήσουν στην έγκαιρη έναρξη και ομαλή υλοποίηση κάθε παρέμβασης.

Με τον όρο «Έναρξη και προγραμματισμός υλοποίησης παρεμβάσεων του ΣΑΑ» νοείται το σύνολο των ενεργειών που απαιτούνται μετά την έγκριση του ΣΑΑ και μέχρι την έναρξη της υλοποίησης κάθε παρέμβασης (επένδυσης ή μεταρρύθμισης) του ΣΑΑ, με στόχο:

- τη διασφάλιση της συμβατότητας των παρεμβάσεων του ΣΑΑ με τις οριζόντιες εθνικές και ενωσιακές πολιτικές για τις κρατικές ενισχύσεις, τις δημόσιες συμβάσεις και την αρχή “Do No Significant Harm”, συμβατότητα που ελέγχεται και καθ’ όλη την περίοδο υλοποίησης των παρεμβάσεων,
- την εκ των προτέρων δέσμευση των αρμόδιων Φορέων Υλοποίησης των παρεμβάσεων του ΣΑΑ:
 - για την υλοποίηση των παρεμβάσεων ευθύνης τους σύμφωνα με τα οριζόμενα στο εγκεκριμένο ΣΑΑ
 - για την τήρηση του συνόλου των υποχρεώσεών τους, όπως αυτές απορρέουν από τον Κανονισμό του ΜΑΑ, την εθνική και ευρωπαϊκή νομοθεσία και το ΣΠΕ, καθ’ όλη τη διάρκεια υλοποίησης των παρεμβάσεων.

Η διαδικασία έναρξης και προγραμματισμού περιλαμβάνει τις ακόλουθες ενέργειες:

- Ένταξη των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ στον Κρατικό Προϋπολογισμό
- Απόφαση για μεταφορά πιστώσεων

- Προγραμματισμός Επένδυσης ή Μεταρρύθμισης
- Επιλογή αναδόχων / τελικών αποδεκτών ενισχύσεων.

3.1.2 Ένταξη των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ στον Κρατικό Προϋπολογισμό

Για σκοπούς της επιλογής και υλοποίησης επενδύσεων / μεταρρυθμίσεων του ΣΑΑ, απαραίτητη προϋπόθεση είναι η συμμόρφωση με

(α) τις αρχές της διαχείρισης των δημόσιων οικονομικών, σύμφωνα με τις διατάξεις του άρθρου 4 του Ν.20(Ι)/2014 και

(β) τους δημοσιονομικούς κανόνες που προβλέπονται στο άρθρο 40 του Ν.20(Ι)/2014 ή άλλους κανόνες και πολιτικές που ορίζονται στο εκάστοτε Στρατηγικό Πλαίσιο Δημοσιονομικής Πολιτικής, όσον αφορά τη χρηματοδότηση των επενδύσεων/ μεταρρυθμίσεων.

Στο πλαίσιο αυτό, για τις επενδύσεις και μεταρρυθμίσεις που συμπεριλαμβάνονται στο ΣΑΑ της Κυπριακής Δημοκρατίας και για την ένταξή τους στον Κρατικό Προϋπολογισμό, ακολουθούνται τα βήματα που ορίζονται στα άρθρα 84 έως 86 του Ν.20(Ι)/2014, σύμφωνα με τα οποία ισχύουν τα ακόλουθα:

A) Προεπιλογή Έργου (άρθρο 84 Ν.20(Ι)/2014)

Όταν προϊστάμενος οικονομικού φορέα σκοπεύει να προτείνει την υλοποίηση ενός έργου, ο εν λόγω προϊστάμενος συντάσσει και υποβάλλει στον Υπουργό Οικονομικών (στο εξής: Υπουργός), έκθεση με τις παραμέτρους του έργου, οι οποίες καθορίζονται σε οδηγίες του Υπουργού, η οποία περιλαμβάνει:

- περιγραφή των στόχων, των δραστηριοτήτων και των αναμενόμενων αποτελεσμάτων του έργου
- τις εκτιμήσεις των συνολικών δημόσιων εσόδων και δαπανών, καθώς και κάθε άλλη χρήση των δημόσιων πόρων για το έργο
- αξιολόγηση κατά πόσο το έργο είναι σύμφωνο με τις προτεραιότητες πολιτικής της Κυβέρνησης
- οποιαδήποτε άλλα θέματα δύνανται να καθορίζονται από τον Υπουργό.

Η γνώμη του Υπουργού που λαμβάνεται σύμφωνα με τα παραπάνω, περιλαμβάνει εκτίμηση του κατά πόσο το έργο είναι οικονομικά προσιτό και οικονομικά βιώσιμο, με βάση προκαταρκτικές εκτιμήσεις.

B) Αξιολόγηση Έργου (άρθρο 85 Ν.20(Ι)/2014)

Ο προϊστάμενος του οικονομικού φορέα που προτίθεται να εφαρμόσει το έργο που θεωρείται οικονομικά βιώσιμο, συντάσσει και υποβάλλει στον Υπουργό έκθεση αξιολόγησης έργου για όλα τα έργα που έχουν προεπιλεγεί σύμφωνα με την προηγούμενη παράγραφο (Προεπιλογή Έργου).

Η έκθεση αξιολόγησης έργου περιλαμβάνει μελέτη σκοπιμότητας που εκπονείται σύμφωνα με κατευθυντήριες γραμμές του Υπουργού και διαβιβάζεται σε αυτόν για αξιολόγηση.

Ο Υπουργός, με οδηγίες του, καθορίζει τα κριτήρια του κατά πόσο το έργο είναι οικονομικά προσιτό και οικονομικά βιώσιμο. Ο Υπουργός τηρεί και δημοσιεύει, από καιρό σε καιρό, κατάλογο με όλα τα έργα που ικανοποιούν τα κριτήρια, και τα έργα που περιλαμβάνονται στον κατάλογο αυτό είναι επιλέξιμα για περίληψη στον Προϋπολογισμό, σύμφωνα με τις διαδικασίες που προβλέπονται στο άρθρο 86 του Ν 20(Ι)/2014 και περιγράφονται στη συνέχεια.

Γ) Επιλογή Έργου (άρθρο 86 Ν.20(Ι)/2014)

Ο προϊστάμενος οικονομικού φορέα δύναται να προτείνει στον Υπουργό έργο για συμπερίληψη στον Προϋπολογισμό που είναι υπό την ευθύνη του, νοουμένου ότι το προτεινόμενο έργο περιλαμβάνεται στον κατάλογο με τα επιλέξιμα για περίληψη στον Προϋπολογισμό έργα, τον οποίο τηρεί ο Υπουργός.

Πρόταση έργου περιλαμβάνεται στην πρόταση προϋπολογισμού του οικονομικού φορέα, σε μορφή που καθορίζεται στην εκάστοτε εγκύκλιο ετοιμασίας του προϋπολογισμού.

Σε περίπτωση που προτείνεται έργο για συμπερίληψη στον Προϋπολογισμό, ο Υπουργός δύναται να περιλάβει το εν λόγω έργο στον Προϋπολογισμό, μόνο εάν:

- το έργο θεωρείται ότι προσφέρει οικονομική ανταποδοτικότητα από την άποψη των οικονομικών, κοινωνικών και περιβαλλοντικών κριτηρίων, όπως ορίζεται από αυτόν· και
- η έγκριση του έργου δεν προκαλεί υπέρβαση των ανώτατων οροφών.

Ο Υπουργός καταρτίζει πίνακα, ο οποίος συμπεριλαμβάνεται στα έγγραφα του Προϋπολογισμού, και περιλαμβάνει:

- κατάλογο όλων των έργων που προτείνονται στον Προϋπολογισμό για έγκριση
- προβλέψεις των ετήσιων δαπανών και εσόδων στον Προϋπολογισμό για κάθε έργο που προτείνεται να συμπεριληφθεί σε αυτόν («νέο έργο»), για όλη την περίοδο υλοποίησης του έργου
- ενημέρωση των προβλέψεων των ετήσιων δαπανών και εσόδων για τα έργα που έχουν εγκριθεί στους προϋπολογισμούς προηγούμενων ετών («υφιστάμενα έργα») για όλη την περίοδο υλοποίησης των έργων αυτών
- επεξήγηση, σε περίπτωση σημαντικής απόκλισης, των λόγων της απόκλισης μεταξύ των προβλέψεων των ετήσιων δαπανών που αναφέρονται ανωτέρω, οι οποίες παρουσιάζονται στον τρέχοντα Προϋπολογισμό και σε προϋπολογισμούς προηγούμενων ετών
- σύνοψη των ετήσιων δαπανών και εσόδων όλων των υφιστάμενων και των νέων έργων·
- σύνοψη των αποτελεσμάτων της παρακολούθησης, σύμφωνα με τις διατάξεις του εδαφίου (3) του άρθρου 88 του Ν. 20(ι)/2014, για όλα τα υφιστάμενα έργα και
- οποιαδήποτε άλλα θέματα δύναται να καθορίζονται από τον Υπουργό.

Ο Υπουργός υποβάλλει κατάσταση, κατά προτεραιότητα, των έργων που έχουν επιλεγεί, στο Υπουργικό Συμβούλιο, στα πλαίσια της διαδικασίας υποβολής του Προϋπολογισμού και του Μεσοπρόθεσμου Δημοσιονομικού Πλαισίου, για έγκριση.

Επισημαίνεται ότι:

- Για όλες τις επενδύσεις/ μεταρρυθμίσεις με κόστος €2 εκ. ευρώ και άνω (συμπ. ΦΠΑ) που προτείνονται για ένταξη στον Κρατικό Προϋπολογισμό, ετοιμάζεται Σημείωμα Έργου (Project Concept Note – PCN) από τον ΦΥ που προτείνει την επένδυση/ μεταρρύθμιση και υποβάλλεται στην ΓΔ ΕΠΣΑ για γνωμοδότηση. Για την συμπερίληψη της επένδυσης/ μεταρρύθμισης στον Προϋπολογισμό πρέπει να υπάρχουν Σημειώματα Έργου που να έχουν γνωμοδοτηθεί θετικά από τη ΓΔ ΕΠΣΑ. Για επενδύσεις/ μεταρρυθμίσεις με κόστος μικρότερο των €2 εκ. ευρώ δεν απαιτείται εγκεκριμένο Σημείωμα Έργου, εκτός αν ο Υπουργός Οικονομικών αποφασίσει διαφορετικά.
- Για όλες τις επενδύσεις/ μεταρρυθμίσεις με κόστος €15 εκ. ευρώ και άνω (συμπ. ΦΠΑ) για τα οποία έχει γνωμοδοτηθεί θετικά το Σημείωμα Έργου, πρέπει επιπρόσθετα να εκπονείται Μελέτη Βιωσιμότητας και να υποβάλλεται στη ΓΔ ΕΠΣΑ για ανεξάρτητη αξιολόγηση. Η Μελέτη Βιωσιμότητας πρέπει να εκπονείται σύμφωνα με την μεθοδολογία που καταγράφεται στο Εγχειρίδιο για την Προεπιλογή και Αξιολόγηση Δημόσιων Επενδυτικών Έργων που είναι αναρτημένο στην ιστοσελίδα της ΓΔ ΕΠΣΑ (http://www.dgerpcd.gov.cy/dgerpcd/dgerpcd.nsf/page51_gr/page51_gr?OpenDocument). Για τις εν λόγω επενδύσεις/ μεταρρυθμίσεις, η ένταξή τους στον Κρατικό Προϋπολογισμό προϋποθέτει θετική αξιολόγηση τόσο του Σημειώματος Έργου, όσο και της Μελέτης Βιωσιμότητας από τη ΓΔ ΕΠΣΑ.

Από την προαναφερόμενη διαδικασία εξαιρούνται οι επενδύσεις/ μεταρρυθμίσεις ηλεκτρονικής διακυβέρνησης τις οποίες, όταν η αξία τους είναι €300.000 και άνω, εγκρίνει το Υφυπουργείο Έρευνας Καινοτομίας και Ψηφιακής Πολιτικής. Συγκεκριμένα, το Υφυπουργείο έχει θέσει μηχανισμό για την έγκριση των εν λόγω έργων, τα οποία εγκρίνονται από τον Υφυπουργό και Γενικό Διευθυντή του υφυπουργείου σε σχετικές Συνεδρίες ως ακολούθως:

(α) Τα έργα υποβάλλονται από τα Υπουργεία/Τμήματα/Υπηρεσίες συμπληρώνοντας σχετικό έγγραφο FICHE σε συνεργασία με το Τμήμα Υπηρεσιών Πληροφορικής (ΤΥΠ) του Υφυπουργείου καθώς και καλυπτικό Σημείωμα με τις βασικές απαιτήσεις του έργου.

(β) Το Υφυπουργείο, μετά την παραλαβή των εγγράφων, ορίζει σχετική Συνεδρία, στην οποία παρουσιάζονται τα έργα που υποβλήθηκαν από τα Υπουργεία/Τμήματα/Υπηρεσίες μαζί με το ΤΥΠ και ενημερώνει σχετικά τους εμπλεκόμενους φορείς με ημερήσια διάταξη.

(γ) Ετοιμάζονται σχετικά πρακτικά με τις αποφάσεις τα οποία και κοινοποιούνται στους εμπλεκόμενους φορείς.

Σημειώνεται ότι η έγκριση των έργων ηλεκτρονικής διακυβέρνησης από το Υφυπουργείο δεν συνιστά και έγκριση πιστώσεων ούτε έγκριση πρόσληψης προσωπικού. Μετά την έγκριση του Υφυπουργείου, η ενδιαφερόμενη υπηρεσία θα πρέπει να λαμβάνει έγκριση πιστώσεων από το

Υπουργείο Οικονομικών και το Τμήμα Δημόσιας Διοίκησης και Προσωπικού στο πλαίσιο καταρτισμού του Προϋπολογισμού.

Δ) Έγκριση Προϋπολογισμού (άρθρο 10 Ν.20(Ι)/2014)

Τηρουμένων των διατάξεων του άρθρου 54 του Συντάγματος, το Υπουργικό Συμβούλιο, εγκρίνει τον Προϋπολογισμό της Κυπριακής Δημοκρατίας, ώστε να διασφαλίζεται η συμμόρφωση με τους δημοσιονομικούς κανόνες και τη δημοσιονομική πολιτική

Μετά την έγκριση του Υπουργικού Συμβουλίου, σύμφωνα με το άρθρο 17 του Ν. 20(Ι)/2014, η Βουλή των Αντιπροσώπων της Κυπριακής Δημοκρατίας ψηφίζει τον Προϋπολογισμό, πριν την ημερομηνία έναρξης του οικονομικού έτους, και εγκρίνει τους τελικούς λογαριασμούς της Δημοκρατίας.

Το Υπουργικό Συμβούλιο, έχει επίσης την ευθύνη παρακολούθησης της υλοποίησης του Προϋπολογισμού μέσω της ετοιμασίας και υποβολής έκθεσης προόδου για τα δημόσια οικονομικά, σύμφωνα με το εδάφιο (1) του άρθρου 61 του Ν. 20(Ι)/2014 για τη διασφάλιση της επίτευξης των δημοσιονομικών κανόνων και της δημοσιονομικής πολιτικής.

3.1.3 Μεταφορά πιστώσεων

Στις περιπτώσεις ΦΥ που είναι Κυβερνητικά Τμήματα/Υπηρεσίες, όπου δεν έχει δημιουργηθεί ειδικό άρθρο για το έργο ή/και δεν έχουν εξασφαλισθεί οι απαιτούμενες πιστώσεις, υποβάλλεται αίτημα προς τη Διεύθυνση Προϋπολογισμού του Υπουργείου Οικονομικών για δημιουργία άρθρου ή/και εξασφάλιση των απαιτούμενων πιστώσεων κάτω από κατάλληλο Κεφάλαιο και Άρθρο του Κρατικού Προϋπολογισμού. Αυτό το αίτημα και όλη η σχετική αλληλογραφία θα κοινοποιούνται στη ΣΑ και σχετική πληροφόρηση θα συμπεριλαμβάνεται στις τριμηνιαίες εκθέσεις προόδου των μεταρρυθμίσεων και επενδύσεων του ΣΑΑ. Για το σκοπό αυτό, ο ΦΥ, στο αίτημα προς το Υπουργείο Οικονομικών για την εξασφάλιση των απαιτούμενων πιστώσεων, πρέπει απαραίτητα να αναφέρει το ύψος των πιστώσεων που θα απαιτηθούν για το τρέχον έτος.

Οι πληρωμές προς φορείς εκτός της Κεντρικής Κυβέρνησης θα καταβάλλονται από τη ΣΑ. Μετά από σχετικό αίτημα από τους φορείς υλοποίησης θα μεταφέρονται πιστώσεις από συγκεντρωτική πρόνοια του προϋπολογισμού της ΓΔ ΕΠΣΑ σε σχετικό άρθρο της ΣΑ για καταβολή των πληρωμών στους Φορείς Υλοποίησης. Οι πληρωμές θα γίνονται, νοουμένου ότι διασφαλίζεται η τήρηση όλων των απαιτούμενων διαδικασιών, μέτρων, εθνικών και κοινοτικών πολιτικών, καθώς και των προνοιών των σχετικών Ενωσιακών Κανονισμών, ώστε οι επενδύσεις και μεταρρυθμίσεις να είναι επιλέξιμες για χρηματοδότηση από τον Μηχανισμό Ανάκαμψης και Ανθεκτικότητας.

Οι ΦΥ εκτός Κεντρικής Κυβέρνησης και η άσκηση των αρμοδιοτήτων τους σε σχέση με την υλοποίηση, την παρακολούθηση και την επαλήθευση επενδύσεων και μεταρρυθμίσεων του ΣΑΑ, ελέγχονται από την ΣΑ, η οποία εξασφαλίζει τη χρηματοδότησή τους για την υλοποίηση των παρεμβάσεων, κατ' εφαρμογή των οριζόμενων στο άρθρο 24 του Ν. 38(Ι)/2014 και στις Εγκυκλίους 1777/2019 και 1778/2019 όπου παρέχονται ειδικότερες οδηγίες για τα καθήκοντα των φορέων χρηματοδότησης και των χρηματοδοτούμενων φορέων αντίστοιχα. Επιπρόσθετα, οι ΦΥ εκτός Κεντρικής Κυβέρνησης αποτελούν αντικείμενο εξωτερικού ανεξάρτητου ελέγχου από την ΕΥ, όπως περιγράφεται στην παράγραφο 3.3.4.

Ο αρμόδιος λειτουργός της ΣΑ, στις περιπτώσεις όπου εντοπίζονται προβλήματα που επηρεάζουν την αξιοπιστία του συστήματος εσωτερικού ελέγχου του λήπτη της χρηματοδότησης (ΦΥ) ή τη νομιμότητα των συναλλαγών που διενεργούνται με τα χρηματικά διαθέσιμα, δεν εξουσιοδοτεί την περαιτέρω καταβολή των πληρωμών προς τον ΦΥ σύμφωνα με τα προβλεπόμενα στο άρθρο 24 του Ν. 38(Ι)/ 2014 και προχωρεί σε διερεύνηση των προβλημάτων που εντοπίστηκαν και θέτει όρους προς εξάλειψη των προβλημάτων στα συστήματα εσωτερικού ελέγχου. Η ΣΑ ή/και ο Γενικός Λογιστής δύνανται να ζητούν από τον αρμόδιο λειτουργό την αναστολή ή τη διακοπή ή την επιστροφή πληρωμών στις περιπτώσεις όπου εντοπίζονται προβλήματα.

Στην αντίθετη περίπτωση, όπου δεν εντοπίζονται προβλήματα, ο αρμόδιος λειτουργός της ΣΑ εγκρίνει και διενεργεί την περαιτέρω καταβολή της χρηματοδότησης στον ΦΥ.

3.1.4 Προγραμματισμός Επένδυσης ή Μεταρρύθμισης

Ο προγραμματισμός κάθε παρέμβασης (επένδυσης ή μεταρρύθμισης) του ΣΑΑ είναι το απαραίτητο προκαταρκτικό στάδιο για την έναρξη της υλοποίησης της παρέμβασης, προκειμένου να είναι στο μέλλον δυνατή η συγκριτική, σε σχέση με αυτόν, αποτίμηση των στοιχείων προόδου που θα συλλέγονται μέσω της διαδικασίας παρακολούθησης και να εκτιμάται με μετρήσιμα μεγέθη η αποτελεσματικότητα υλοποίησης των παρεμβάσεων του ΣΑΑ και του ΣΑΑ ως συνολικού προγράμματος.

Για τον σκοπό αυτό οι Φορείς Υλοποίησης των παρεμβάσεων του ΣΑΑ, καταρτίζουν τον αναλυτικό προγραμματισμό των παρεμβάσεων ευθύνης τους.

Προς διευκόλυνση των ΦΥ για την κατάρτιση του αναλυτικού προγραμματισμού των παρεμβάσεων ευθύνης τους, όλα τα στοιχεία προγραμματισμού του εγκεκριμένου ΣΑΑ και της Επιχειρησιακής Ρύθμισης (Operational Agreement) που συμφωνείται με την ΕΕ, θα εισαχθούν εκ των προτέρων στο ΠΣΠ του ΣΑΑ από τους διαχειριστές του Συστήματος, ώστε να είναι διαθέσιμα στους ΦΥ για την περαιτέρω εξειδίκευση και ανάλυση του προγραμματισμού τους.

Ο αναλυτικός προγραμματισμός των παρεμβάσεων περιλαμβάνει για κάθε παρέμβαση του ΣΑΑ τα ακόλουθα:

- Αναλυτικό χρονικό προγραμματισμό (σε επίπεδο ημερολογιακού τριμήνου) των στόχων και οροσήμων που έχουν οριστεί στο εγκεκριμένο ΣΑΑ, καθώς και των ενδιάμεσων σταδίων (εφόσον μπορούν να οριστούν) από τα οποία εξαρτάται η ομαλή υλοποίηση της παρέμβασης μέχρι την επίτευξη των στόχων και οροσήμων που έχουν περιληφθεί στο ΣΑΑ. Συγκεκριμένα:
 - Για τους στόχους (targets) του ΣΑΑ: Ορίζονται και προγραμματίζονται, όπου είναι εφικτό, ενδιάμεσοι στόχοι, δηλαδή ενδιάμεσες τιμές επίτευξης των στόχων του ΣΑΑ.
 - Για τα ορόσημα (milestones) του ΣΑΑ: Ορίζονται και προγραμματίζονται ενδιάμεσα ορόσημα (στάδια υλοποίησης που περιλαμβάνει η Επιχειρησιακή Ρύθμιση, τριμηνιαίες αναφορές προόδου ή άλλοι δείκτες παρακολούθησης) που σηματοδοτούν την ομαλή πρόοδο της παρέμβασης μέχρι την επίτευξη των οροσήμων του ΣΑΑ.

Τα ενδιάμεσα στάδια είναι σε μεγάλο βαθμό τυποποιημένα για διάφορες κατηγορίες παρεμβάσεων, προκειμένου να μπορούν να παρακολουθούνται κατά το δυνατόν όλες οι παρεμβάσεις με ενιαίο τρόπο και να εξάγονται συγκεντρωτικά στοιχεία προόδου σε επίπεδο

ΣΑΑ. Στα ενδιάμεσα στάδια περιλαμβάνονται οπωσδήποτε τα στάδια ετοιμασίας τυχόν απαιτούμενων μελετών και λήψης των απαιτούμενων αδειών, τα στάδια των διαδικασιών για τη σύναψη συμβάσεων, τα στάδια έκδοσης προκηρύξεων / προσκλήσεων για υποβολή προσφορών / προτάσεων και επιλογή αναδόχων ή τελικών αποδεκτών ενισχύσεων, τα στάδια υλοποίησης του φυσικού και οικονομικού αντικειμένου κάθε παρέμβασης (παραδοτέα αναδόχων, αιτήματα καταβολής χορηγίας, κλπ.) καθώς και τα ενδιάμεσα προπαρασκευαστικά στάδια σε περιπτώσεις μεταρρυθμιστικών παρεμβάσεων που υλοποιούνται με ίδιους πόρους.

- Προγραμματισμό επίτευξης των κοινών δεικτών (common indicators) που καθορίζονται σε ευρωπαϊκό επίπεδο και στους οποίους συμβάλλουν οι παρεμβάσεις του ΣΑΑ (εάν εφαρμόζεται),
- Εντοπισμό κινδύνων –θεμάτων προς επίλυση: Επικαιροποιείται, εφόσον απαιτείται, η αρχική καταγραφή ενδεχόμενων κινδύνων που έχει περιληφθεί στο εγκεκριμένο ΣΑΑ, σχετικά με κινδύνους που μπορεί να έχουν επίπτωση στην έγκαιρη επίτευξη των στόχων και οροσήμων της παρέμβασης, εκτιμώμενη πιθανότητα εμφάνισης και επίπτωσή τους, προτεινόμενες ενέργειες αντιμετώπισης και υπεύθυνους φορείς για την υλοποίηση των ενεργειών αντιμετώπισης. Επίσης, καταγράφονται τυχόν προβλήματα που έχουν ήδη παρουσιαστεί κατά τη φάση ωρίμασης της παρέμβασης, για τα οποία ορίζονται επίσης οι προτεινόμενες ενέργειες αντιμετώπισης και οι υπεύθυνοι για τις ενέργειες αυτές φορείς. Οι Φορείς Υλοποίησης, με την υποστήριξη της ΣΑ και των Φορέων Παρακολούθησης για τις περιπτώσεις που αυτοί έχουν οριστεί, έχουν την ευθύνη για την επίσπευση όλων των απαιτούμενων ενεργειών για την αντιμετώπιση των κινδύνων και θεμάτων προς επίλυση που εντοπίζονται.

Κατά την κατάρτιση του αναλυτικού προγραμματισμού των παρεμβάσεων οι ΦΥ υποστηρίζονται από στελέχη της ΣΑ, προκειμένου να διασφαλίζεται ότι ο προγραμματισμός συνάδει με τις δεσμεύσεις που έχουν περιληφθεί στο ΣΑΑ.

Μόλις ολοκληρωθεί ο αναλυτικός προγραμματισμός των παρεμβάσεων σε συνεργασία με τη ΣΑ, αυτός καταχωρίζεται στο ΠΣΠ του ΣΑΑ από τους ΦΥ των παρεμβάσεων, όπου ταυτόχρονα επισυνάπτονται και τα ακόλουθα έγγραφα:

- Δήλωση μη διπλής χρηματοδότησης των παρεμβάσεων από άλλα προγράμματα
- Δήλωση τήρησης της αρχής του «Do No Significant Harm»
- Δήλωση δέσμευσης για την τήρηση του συνόλου των υποχρεώσεων που απορρέουν από τον Κανονισμό του ΜΑΑ, την ευρωπαϊκή και εθνική νομοθεσία και το ΣΠΕ, και συγκεκριμένα για:
 - Την υλοποίηση της παρέμβασης και την επίτευξη των συμφωνηθέντων στόχων και οροσήμων σύμφωνα με τον αναλυτικό προγραμματισμό, καθώς και την παροχή των απαιτούμενων αποδεικτικών στοιχείων για την επαλήθευση της επίτευξής τους από τα αρμόδια όργανα.
 - Την υποβολή, σε τριμηνιαία βάση, στοιχείων προόδου επίτευξης των στόχων και οροσήμων του ΣΑΑ και των ενδιάμεσων σταδίων, καθώς και στοιχείων που τεκμηριώνουν την πρόοδο αυτή, σύμφωνα με τη μέθοδο πιστοποίησης (verification method) που έχει οριστεί στο ΣΑΑ για την κάθε παρέμβαση
 - Την ανάρτηση στο ΠΣΠ των πιστοποιητικών / γνωμοδοτήσεων για τη διασφάλιση της συμβατότητας με τις οριζόντιες πολιτικές για τις κρατικές ενισχύσεις και τις δημόσιες

συμβάσεις, καθώς και του Οδηγού Εφαρμογής για τα Σχέδια Χορηγιών, σε όλες τις περιπτώσεις που αυτό απαιτηθεί στο μέλλον (όσα από τα εν λόγω έγγραφα έχουν ήδη εκδοθεί, αναρτώνται κατά την καταχώριση του αναλυτικού προγραμματισμού)

- Την καταχώριση στο ΠΣΠ⁹, και, μέχρι την έναρξη της παραγωγικής λειτουργίας του, την τήρηση σε προσωρινό Κατάλογο που θα υποδείξει η ΣΑ, των στοιχείων των τελικών αποδεκτών χρηματοδότησης (final recipients), των αναδόχων και υπεργολάβων Έργων ΔΣ και των πραγματικών δικαιούχων (UBOs) των αναδόχων και των τελικών αποδεκτών ενισχύσεων, σύμφωνα με το Άρθρο 22(2)(d) του Κανονισμού του ΜΑΑ, καθώς και τη συστηματική ενημέρωση της ΣΑ για κάθε νέα εγγραφή στον Κατάλογο, τη στιγμή που θα προκύπτει η σχετική πληροφορία (σύναψη σύμβασης ή έγκριση τελικού αποδέκτη ενίσχυσης στο πλαίσιο σχεδίου χορηγιών).
- Την τήρηση της ευρωπαϊκής και εθνικής νομοθεσίας για την υλοποίηση των παρεμβάσεων
- Την αποδοχή ελέγχων από τα ευρωπαϊκά ελεγκτικά όργανα (Επιτροπή, Ευρωπαϊκή Υπηρεσία Καταπολέμησης της Απάτης (OLAF), Ελεγκτικό Συνέδριο (Court of Auditors) και, όπου εφαρμόζεται, Ευρωπαϊκή Εισαγγελία (EPPO)), σύμφωνα με το Άρθρο 22(2)(e) του Κανονισμού του ΜΑΑ, και τη συμμόρφωση στις συστάσεις αυτών
- Την τήρηση Φακέλου Παρέμβασης με όλα τα στοιχεία τεκμηρίωσης που αφορούν σε κάθε παρέμβαση σύμφωνα με το Άρθρο 132 του Δημοσιονομικού Κανονισμού.
- Την τήρηση των κανόνων δημοσιότητας που ορίζει η Επιτροπή για τις παρεμβάσεις που χρηματοδοτούνται από τον ΜΑΑ.

Ο αναλυτικός προγραμματισμός επικυρώνεται, μέσω του ΠΣΠ, από τη ΣΑ, η οποία προκειμένου να διενεργήσει την επικύρωση ελέγχει:

- Την πλήρωση των δεσμεύσεων που έχουν περιληφθεί στο εγκεκριμένο ΣΑΑ και στην Επιχειρησιακή Ρύθμιση που έχει συμφωνηθεί
- Την επαρκή ανάλυση του προγραμματισμού των οροσήμων και στόχων στα κατά περίπτωση απαιτούμενα ενδιάμεσα στάδια
- Τη ρεαλιστικότητα του αναλυτικού χρονοδιαγράμματος
- Την συμπερίληψη των κινδύνων και θεμάτων προς επίλυση που έχουν καταγραφεί στο ΣΑΑ και την ενδεχόμενη επικαιροποίησή τους
- Την έκδοση των πιστοποιητικών και γνωμοδοτήσεων που πρέπει να είναι διαθέσιμα πριν την έναρξη υλοποίησης των παρεμβάσεων
- Την ύπαρξη όλων των απαιτούμενων βεβαιώσεων και λοιπών συνημμένων εγγράφων.

Επιπρόσθετα, σύμφωνα με τον Περί της Εκτίμησης των Επιπτώσεων στο Περιβάλλον από Ορισμένα Έργα Νόμο του 2018 [Ν. 127(I)/2018] που τέθηκε σε ισχύ στις 31 Ιουλίου 2018 και εναρμονίζει την

⁹ Η διαδικασία αυτή θα τηρηθεί μέχρι τη θέση σε πλήρη λειτουργία του υπό ανάπτυξη Μητρώου Πραγματικών Δικαιούχων του Εφόρου Εταιρειών της Κυπριακής Δημοκρατίας, οπότε και οι σχετικές πληροφορίες θα λαμβάνονται μέσω κατάλληλων διασυνδέσεων του Μητρώου με το ΠΣΠ του ΣΑΑ.

οδηγία 2014/52/ΕΕ, δημόσια ή ιδιωτικά έργα τα οποία ενδέχεται να έχουν σημαντικές επιπτώσεις στο περιβάλλον λόγω, μεταξύ άλλων, της φύσεως, του μεγέθους ή της θέσης τους, υπόκεινται σε υποχρέωση εκτίμησης των επιπτώσεων τους, πριν τη χορήγηση άδειας ή έγκρισης ή εξουσιοδότησης. Επομένως, Μελέτες Περιβαλλοντικών Επιπτώσεων (Environmental Impact Assessments), καθώς και τυχόν άλλες μελέτες ή άδειες που ενδέχεται να απαιτούνται κατά περίπτωση (π.χ. πολεοδομικές άδειες) για τη διασφάλιση της ωριμότητας μιας υλοποιούμενης επένδυσης ή μεταρρύθμισης θα πρέπει να εκδίδονται πριν την έναρξη της υλοποίησής τους.

Η ΣΑ, για την επικύρωση του προγραμματισμού, δύναται να ζητήσει από τους ΦΥ την προσκόμιση τυχόν μελετών και αδειών που απαιτούνται για την έναρξη υλοποίησης της επένδυσης / μεταρρύθμισης.

Με την επικύρωση του προγραμματισμού, εκδίδεται αυτόματα από το ΠΣΠ το έγγραφο της Δέσμευσης Προγραμματισμού το οποίο περιλαμβάνει όλα τα στοιχεία του αναλυτικού προγραμματισμού της παρέμβασης, τα συνημμένα έγγραφα και τη δήλωση της δέσμευσης του ΦΥ για την τήρηση των υποχρεώσεών του.

Η Δέσμευση Προγραμματισμού αποτελεί ουσιαστικά την διαβεβαίωση:

- Εκ μέρους της ΣΑ ότι ο αναλυτικός προγραμματισμός κάθε παρέμβασης συνάδει με τις δεσμεύσεις που έχουν περιληφθεί στο ΣΑΑ
- Εκ μέρους του ΦΥ ότι έχει ενημερωθεί για τις υποχρεώσεις που θα πρέπει να τηρεί καθ' όλη τη διάρκεια υλοποίησης των παρεμβάσεων ευθύνης του, όπως αυτές απορρέουν από τον Κανονισμό του ΜΑΑ, την εθνική και ευρωπαϊκή νομοθεσία και το ΣΠΕ.

Η Δέσμευση Προγραμματισμού κοινοποιείται στον ΦΥ και στον Φορέα Παρακολούθησης, στην περίπτωση που έχει οριστεί, μέσω του ΠΣΠ.

Η έκδοση της Δέσμευσης Προγραμματισμού σηματοδοτεί την έναρξη της περιόδου παρακολούθησης της παρέμβασης.

Με την έκδοση της Δέσμευσης Προγραμματισμού, ο ΦΥ δημιουργεί **Φάκελο Παρέμβασης**, όπου καταχωρείται η Δέσμευση και όλα τα συνημμένα της έγγραφα, καθώς και οποιοδήποτε άλλο έγγραφο αφορά σε προκαταρκτικές ενέργειες που έχουν υλοποιηθεί μέχρι την έγκριση της Δέσμευσης και αφορούν στη συγκεκριμένη παρέμβαση, σύμφωνα με το Άρθρο 132 του Δημοσιονομικού Κανονισμού. Στον Φάκελο Παρέμβασης προστίθεται και οποιαδήποτε πληροφορία σχετική με την πρόοδο υλοποίησης της παρέμβασης. Ενδεικτικά, και όχι περιοριστικά, περιεχόμενα του Φακέλου Παρέμβασης είναι τα ακόλουθα:

- Δέσμευση Προγραμματισμού
- Πιστοποιητικά / γνωμοδοτήσεις συμβατότητας με τις εθνικές και ενωσιακές πολιτικές και με την αρχή του “Do No Significant Harm”
- Έγγραφα τεκμηρίωσης διαδικασιών Δημοσίων Συμβάσεων και Εφαρμογής Σχεδίων Χορηγιών

- Δηλώσεις απουσίας σύγκρουσης συμφερόντων από τα στελέχη του ΦΥ που εμπλέκονται στις διαδικασίες αξιολόγησης, επιλογής και επαληθεύσεων αναδόχων και τελικών αποδεκτών ενισχύσεων
- Στοιχεία αναδόχων, υπεργολάβων, τελικών αποδεκτών ενίσχυσης και πραγματικών δικαιούχων (UBOs) σύμφωνα με το Άρθρο 22(2)(d) του Κανονισμού του ΜΑΑ
- Υπογεγραμμένες συμβάσεις / συμφωνίες και τροποποιήσεις τους
- Στοιχεία παραλαβής παραδοτέων προϊόντων ή υπηρεσιών ή εργασιών αναδόχων ή τελικών αποδεκτών ενισχύσεων
- Έντυπα ενημέρωσης της ΣΑ για την πρόοδο της υλοποίησης της παρέμβασης (μέχρι την έναρξη της παραγωγικής λειτουργίας του ΟΠΣ)
- Αποδεικτικά στοιχεία που υποστηρίζουν την πρόοδο επίτευξης στόχων και οροσήμων
- Στοιχεία δαπανών
- Στοιχεία ελεγκτικών ενεργειών που έχουν πραγματοποιηθεί για την παρέμβαση και τεκμηρίωση ενεργειών συμμόρφωσης σε τυχόν υποδείξεις.

Επισημαίνεται ότι, μέχρι την έναρξη της παραγωγικής λειτουργίας του ΠΣΠ, ο αναλυτικός προγραμματισμός των παρεμβάσεων διενεργείται από τους ΦΥ μέσω της συμπλήρωσης κατάλληλου εντύπου σε μορφή excel (βλ. σχετικό ενδεικτικό υπόδειγμα Νο 1: «Δέσμευση Προγραμματισμού» στο Παράρτημα IV) το οποίο αποστέλλουν στην ΣΑ προς επικύρωση (με τα απαραίτητα συνημμένα έγγραφα). Όλα τα έντυπα και συνημμένα έγγραφα, πέρα από τον Φάκελο Παρέμβασης όπου τα τηρεί ο ΦΥ, τηρούνται και κεντρικά από την ΣΑ, μέχρι την έναρξη της παραγωγικής λειτουργίας του ΠΣΠ πριν από την οποία η ΣΑ μεριμνά για την εισαγωγή όλων των στοιχείων στο Σύστημα.

3.1.5 Επιλογή αναδόχων / αντισυμβαλλόμενων / τελικών αποδεκτών ενισχύσεων

Στις διαδικασίες έναρξης των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ περιλαμβάνεται και η επιλογή αναδόχων ή αντισυμβαλλόμενων ή τελικών αποδεκτών ενισχύσεων που αφορά στην έναρξη της εκτέλεσης των επιμέρους δράσεων που περιλαμβάνει κάθε επένδυση ή μεταρρύθμιση, και η οποία διενεργείται μετά την έκδοση της Δέσμευσης Προγραμματισμού, για τις επενδύσεις και μεταρρυθμίσεις που περιλαμβάνουν σύναψη συμβάσεων ή Σχέδια Χορηγιών. Η διαδικασία περιλαμβάνει τα ακόλουθα βήματα:

- **Προκήρυξη / Πρόσκληση Υποβολής Προσφορών/Προτάσεων:** Οι Φορείς Υλοποίησης, μετά την έκδοση της Δέσμευσης Προγραμματισμού, συντάσσουν και δημοσιεύουν την Προκήρυξη ή Πρόσκληση Υποβολής Προσφορών / Προτάσεων καλώντας τους δυνητικούς αναδόχους / αντισυμβαλλόμενους / τελικούς αποδέκτες ενισχύσεων για την υποβολή προσφορών, προτάσεων ή αιτήσεων συμμετοχής κατά περίπτωση, όποτε αυτό απαιτείται σύμφωνα με τον

συμφωνημένο αναλυτικό προγραμματισμό των παρεμβάσεών τους. Η προκήρυξη / πρόσκληση κοινοποιείται στη ΣΑ μέσω του ΠΣΠ.

- **Υποβολή Προσφορών / Προτάσεων από τους ενδιαφερόμενους:** Οι ενδιαφερόμενοι στους οποίους απευθύνεται η προκήρυξη / πρόσκληση, για κάθε προτεινόμενο έργο, ετοιμάζουν και υποβάλλουν στον ΦΥ, στα χρονικά πλαίσια που ορίζονται από την προκήρυξη / πρόσκληση, τα παρακάτω έγγραφα:
 - Προσφορά / Πρόταση, σε τυποποιημένο έγγραφο, σύμφωνα με τα οριζόμενα στην προκήρυξη/πρόσκληση
 - Λοιπά έγγραφα που έχουν ζητηθεί από την προκήρυξη/πρόσκληση.
Στην προσφορά / πρόταση που υποβάλλει κάθε ενδιαφερόμενος, θα πρέπει να περιλαμβάνονται όλα τα στοιχεία αναδόχων, υπεργολάβων, τελικών αποδεκτών ενίσχυσης και πραγματικών δικαιούχων (UBOs) σύμφωνα με το Άρθρο 22(2)(d) του Κανονισμού του ΜΑΑ, καθώς και τα υποστηρικτικά έγγραφα που τεκμηριώνουν τα εν λόγω στοιχεία.
Αντίγραφο των παραπάνω εγγράφων και όλη η σχετική αλληλογραφία που ανταλλάσσεται μεταξύ των ενδιαφερομένων και του ΦΥ, τηρείται από τον ΦΥ στον Φάκελο Παρέμβασης, σύμφωνα με τις απαιτήσεις της «επαρκούς διαδρομής ελέγχου» και τη γενικότερη Πολιτική Διατήρησης Εγγράφων, η οποία ακολουθείται σε εθνικό επίπεδο.
- **Αξιολόγηση:** Ο ΦΥ, αφού παραλάβει τις προσφορές / προτάσεις / αιτήσεις συμμετοχής των ενδιαφερόμενων, διενεργεί την αξιολόγηση με βάση τα κριτήρια επιλεξιμότητας, συμβατότητας (όπου είναι απαραίτητο) και χρηματοοικονομικής, διοικητικής και επιχειρησιακής ικανότητας του δυνητικού αναδόχου / αντισυμβαλλόμενου / τελικού αποδέκτη ενίσχυσης, όπως αυτά ορίζονται στην Προκήρυξη / Πρόσκληση και στους Οδηγούς Εφαρμογής για τα Σχέδια Χορηγιών. Ο ΦΥ έχει την ευχέρεια, κατά τη διάρκεια της αξιολόγησης, να ζητήσει από τον υποψήφιο συμπληρωματικά διευκρινιστικά στοιχεία. Νοείται ότι σε κάθε περίπτωση θα διασφαλίζεται η τήρηση των όρων ίσης μεταχείρισης. Σημειώνεται ότι κάθε αξιολογητής θα πρέπει να δηλώνει υπεύθυνα την **απουσία σύγκρουσης συμφερόντων** με τη χρηματοδότηση του υπό αξιολόγηση έργου.
- **Απόφαση:** Εντός εύλογου χρονικού διαστήματος από την υποβολή των προσφορών / προτάσεων / αιτήσεων, ο ΦΥ ολοκληρώνει τη διαδικασία αξιολόγησης και, στην περίπτωση θετικής αξιολόγησης, λαμβάνει εναλλακτικά τις ακόλουθες αποφάσεις:
 - Απόφαση ανάθεσης έργου σε ανάδοχο, ακολουθούμενη από την υπογραφή σχετικής σύμβασης και από την καταχώριση στο ΠΣΠ του ΣΑΑ των απαιτούμενων στοιχείων του αναδόχου, των υπεργολάβων και των πραγματικών δικαιούχων του (UBOs) σύμφωνα με το Άρθρο 22(2)(d) του Κανονισμού του ΜΑΑ¹⁰
 - Απόφαση επιλογής προσωπικού, ακολουθούμενη από υπογραφή σχετικών συμβάσεων
 - Απόφαση έγκρισης αίτησης υπαγωγής σε σχέδιο χορηγιών, ακολουθούμενη από την υπογραφή σχετικής συμφωνίας και από την καταχώριση στο ΠΣΠ του ΣΑΑ των

¹⁰ Η διαδικασία αυτή θα τηρηθεί μέχρι τη θέση σε πλήρη λειτουργία του υπό ανάπτυξη Μητρώου Πραγματικών Δικαιούχων του Εφόρου Εταιρειών της Κυπριακής Δημοκρατίας, οπότε και οι σχετικές πληροφορίες θα λαμβάνονται μέσω κατάλληλων διασυνδέσεων του Μητρώου με το ΠΣΠ του ΣΑΑ.

απαιτούμενων στοιχείων του τελικού αποδέκτη και των πραγματικών δικαιούχων του (UBOs) σύμφωνα με το Άρθρο 22(2)(d) του Κανονισμού του ΜΑΑ.

Στις ανωτέρω αποφάσεις, καθώς και στις σχετικές συμβάσεις ή συμφωνίες στην περίπτωση που συνάπτονται, θα περιλαμβάνονται όλοι οι όροι χρηματοδότησης και οι υποχρεώσεις των αναδόχων / αντισυμβαλλόμενων / τελικών αποδεκτών ενισχύσεων έναντι του ΦΥ.

Επισημαίνεται ότι, μέχρι την έναρξη της παραγωγικής λειτουργίας του ΠΣΠ, οι ΦΥ υποχρεούνται να τηρούν κατάλογο (αρχείο excel) με όλα τα στοιχεία αναδόχων, υπεργολάβων, τελικών δικαιούχων ενισχύσεων και πραγματικών δικαιούχων (UBOs) των παρεμβάσεων ευθύνης τους, σύμφωνα με το Άρθρο 22(2)(d) του Κανονισμού του ΜΑΑ. Η γραμμογράφηση του καταλόγου καθορίζεται από την ΣΑ. Με κάθε νέα απόφαση ανάθεσης / έγκρισης αίτησης υπαγωγής σε σχέδιο χορηγιών που λαμβάνεται, καθώς και με κάθε μεταβολή των εν λόγω στοιχείων, ο ΦΥ ενημερώνει τον Κατάλογο που τηρεί ο ίδιος και στη συνέχεια, στο πλαίσιο των τριμηνιαίων αναφορών προόδου (βλ. παρ. 3.2.2) που υποβάλλει στην ΣΑ, της αποστέλλει συνημμένα και τις νέες εγγραφές του Καταλόγου του. Τα στοιχεία συγκεντρώνει και ενοποιεί σε κεντρική βάση δεδομένων η ΣΑ, μέχρι την έναρξη της παραγωγικής λειτουργίας του ΠΣΠ, πριν από την οποία μεριμνά για την εισαγωγή των στοιχείων στο ΠΣΠ. Όλοι οι τελικοί αποδέκτες ενισχύσεων που επιλέγονται, με την υπογραφή του σχετικού συμφωνητικού βεβαιώνουν και την τήρηση, καθ' όλη τη διάρκεια υλοποίησης των έργων τους, της αρχής "Do No Significant Harm".

Ειδικά όταν η ανάθεση της υλοποίησης ενός έργου εμπίπτει στο πλαίσιο της νομοθεσίας δημοσίων συμβάσεων, η διαδικασία προσφοροδότησης και κατακύρωσης διέπεται από τις διατάξεις του Περί της Ρύθμισης των Διαδικασιών Σύναψης Δημοσίων Συμβάσεων και για συναφή θέματα Νόμου του 2016 (73(I)/2016), καθώς και:

- του Περί Προσφορών του Δημοσίου Νόμο (Ν. 102(I)/1997 όπως έχει τροποποιηθεί και ισχύει), σύμφωνα με τον οποίο τις σχετικές αποφάσεις κατακύρωσης μπορούν να λαμβάνουν, ανάλογα με τον προϋπολογισμό κάθε έργου τα Συμβούλια Προσφορών σε επίπεδο ανεξάρτητων γραφείων, υπηρεσιών ή τμημάτων, τα Συμβούλια Προσφορών σε επίπεδο Υπουργείου ή το Κεντρικό (διυπουργικό) Συμβούλιο Προσφορών.
- του Νόμου που Προνοεί για τη Σύναψη Συμβάσεων Δημοσίων Προμηθειών και Έργων και Δημοσίων Συμβάσεων Υπηρεσιών και για συναφή θέματα (Ν. 101(I)/2003 όπως έχει τροποποιηθεί και ισχύει), σύμφωνα με τον οποίο καθιερύεται και λειτουργεί η Αναθεωρητική Αρχή Προσφορών, με αρμοδιότητα την εξέταση ιεραρχικών προσφυγών εναντίον πράξεων ή αποφάσεων της αναθέτουσας αρχής.

Ειδικά για μεγάλου προϋπολογισμού δημόσιες συμβάσεις, η συμβατότητα της ακολουθούμενης διαδικασίας με τη νομοθεσία περί δημοσίων συμβάσεων πιστοποιείται από το ΓΛΤΔ, όπως περιγράφεται στην παράγραφο 3.3.2.2.

3.2 Παρακολούθηση υλοποίησης του ΣΑΑ

3.2.1 Εισαγωγή

Με τον όρο «Παρακολούθηση υλοποίησης του ΣΑΑ» νοούνται οι διαδικασίες με τις οποίες πραγματοποιείται η συλλογή και διαχείριση πληροφοριών που αφορούν στην υλοποίηση του φυσικού αποκλειστικά αντικειμένου των παρεμβάσεων (επενδύσεων και μεταρρυθμίσεων) του ΣΑΑ, καθώς και στην πρόοδο υλοποίησης του ΣΑΑ ως σύνολο. Πιο συγκεκριμένα, οι πληροφορίες αυτές αφορούν:

- στην επίτευξη των στόχων και οροσήμων των χρηματοδοτούμενων παρεμβάσεων,
- στην υλοποίηση των ενδιάμεσων σταδίων από τα οποία εξαρτάται η επίτευξη των στόχων και οροσήμων των χρηματοδοτούμενων παρεμβάσεων,
- στην επίτευξη των κοινών δεικτών (common indicators) που καθορίζονται σε ευρωπαϊκό επίπεδο και στους οποίους συμβάλλουν οι παρεμβάσεις του ΣΑΑ (όπου εφαρμόζεται),
- στην πρόοδο υλοποίησης του χρονοδιαγράμματος του συνολικού ΣΑΑ και ιδίως του χρονοδιαγράμματος οροσήμων και στόχων μέσω των οποίων δύναται η υποβολή των αιτήσεων πληρωμής που περιλαμβάνεται στην Εκτελεστική Απόφαση του Συμβουλίου για την έγκριση της αξιολόγησης του ΣΑΑ και στην Επιχειρησιακή Ρύθμιση που έχει συμφωνηθεί,
- στην εφαρμογή του συνόλου των διαδικασιών του ΣΠΕ από κάθε εμπλεκόμενο φορέα και στην εκτέλεση των καθηκόντων και τήρηση των υποχρεώσεών τους,
- στην πρόληψη και εντοπισμό κινδύνων που ενδέχεται να έχουν επίπτωση στην έγκαιρη επίτευξη των στόχων και οροσήμων των χρηματοδοτούμενων παρεμβάσεων και κατ' επέκταση του ΣΑΑ,
- στην αντιμετώπιση των ανωτέρω κινδύνων καθώς και άλλων θεμάτων που ενδέχεται να προκύψουν κατά την υλοποίηση του ΣΑΑ και να έχουν επίπτωση στην επίτευξη των στόχων και οροσήμων του.

Οι διαδικασίες παρακολούθησης διενεργούνται σε δυο επίπεδα:

- σε επίπεδο παρέμβασης, από τους Φορείς Παρακολούθησης και από τη Συντονιστική Αρχή, για τις παρεμβάσεις ευθύνης τους,
- σε επίπεδο συνολικού ΣΑΑ (συγκεντρωτική παρακολούθηση παρεμβάσεων), από τη Συντονιστική Αρχή.

Επισημαίνεται ότι οι διαδικασίες παρακολούθησης δεν αποτελούν διαδικασίες διαχείρισης έργου (project management), αλλά αποκλειστικά διαδικασίες συλλογής και διαχείρισης των παραπάνω πληροφοριών σε κεντρικό επίπεδο, με στόχο:

- τη διασφάλιση της έγκαιρης εκπλήρωσης του συνόλου των προϋποθέσεων για την υποβολή των αιτήσεων πληρωμής και της συνοδευτικής δήλωσης διαχείρισης προς την ΕΕ σύμφωνα με το εγκεκριμένο χρονοδιάγραμμα του ΣΑΑ,

- την εκπόνηση των Εκθέσεων Προόδου που υποβάλλονται στην Επιτροπή σύμφωνα με τις απαιτήσεις του Κανονισμού του ΜΑΑ στο πλαίσιο του Ευρωπαϊκού Εξαμήνου.

Πέραν των διαδικασιών αυτών, αρμοδιότητα του κάθε φορέα που υλοποιεί ή/και διαχειρίζεται παρεμβάσεις του ΣΑΑ, παραμένει να παρακολουθεί τις παρεμβάσεις ευθύνης του, τόσο ως προς το φυσικό όσο και ως προς το οικονομικό τους αντικείμενο, σύμφωνα με την ισχύουσα εθνική νομοθεσία και τις διαδικασίες και τα εργαλεία διαχείρισης που χρησιμοποιεί ο ίδιος για τη συμμόρφωσή του με αυτήν.

3.2.2 Παρακολούθηση σε επίπεδο παρέμβασης

Η παρακολούθηση σε επίπεδο παρέμβασης (επένδυσης ή μεταρρύθμισης του ΣΑΑ) διενεργείται πάντοτε σε σύγκριση με τον αρχικό προγραμματισμό υλοποίησης κάθε παρέμβασης, ο οποίος αποτυπώνεται στην Δέσμευση Προγραμματισμού (βλ. παρ. 3.1.4).

Τις απαιτούμενες πληροφορίες για την πρόοδο υλοποίησης των παρεμβάσεων, παρέχουν οι ΦΥ προς τη Συντονιστική Αρχή ή προς τους αρμόδιους Φορείς Παρακολούθησης, εάν έχουν οριστεί. Η παροχή των πληροφοριών γίνεται σε τακτική βάση, με την υποβολή του κατάλληλα σχεδιασμένου για τον σκοπό αυτό Εντύπου Ενημέρωσης Προόδου Παρέμβασης (ΕΕΠΠ), μέσω του ΠΣΠ του ΣΑΑ. Το ΕΕΠΠ περιλαμβάνει για κάθε παρέμβαση τις ακόλουθες πληροφορίες:

- Στοιχεία προόδου επίτευξης των στόχων και οροσήμων της παρέμβασης
- Στοιχεία προόδου υλοποίησης ενδιάμεσων σταδίων για την επίτευξη των στόχων και οροσήμων της παρέμβασης
- Στοιχεία τεκμηρίωσης της προόδου επίτευξης των στόχων και οροσήμων της παρέμβασης, σύμφωνα με τη μέθοδο πιστοποίησης που έχει οριστεί στο ΣΑΑ για την κάθε παρέμβαση
- Στοιχεία προόδου επίτευξης των κοινών δεικτών (common indicators) που καθορίζονται σε ευρωπαϊκό επίπεδο και στους οποίους συμβάλλει η παρέμβαση (εάν εφαρμόζεται)
- Στοιχεία των αναδόχων και υπεργολάβων, καθώς και των πραγματικών δικαιούχων κάθε δημόσιας σύμβασης, σύμφωνα με το Άρθρο 22(2)(d) του Κανονισμού του ΜΑΑ, τα οποία συμπληρώνονται τη στιγμή που είναι διαθέσιμη η σχετική πληροφορία (κατά την ανάθεση)
- Πιστοποιητικά συμβατότητας με τη νομοθεσία περί δημοσίων συμβάσεων και περί κρατικών ενισχύσεων που λαμβάνονται από τις αρμόδιες οριζόντιες αρχές κατά τη διάρκεια υλοποίησης των παρεμβάσεων, καθώς και Οδηγοί Εφαρμογής Σχεδίων Χορηγιών, εφόσον αυτοί δεν έχουν εκδοθεί κατά την κατάρτιση του αναλυτικού προγραμματισμού στο πλαίσιο της διαδικασίας έρναρξης (επισυνάπτονται).
- Ενδεχόμενους κινδύνους / θέματα και προτεινόμενες ενέργειες αντιμετώπισης, για κάθε στόχο και ορόσημο
- Πρόοδο υλοποίησης ενεργειών αντιμετώπισης κινδύνων / θεμάτων που τυχόν είχαν εντοπιστεί σε προηγούμενα ΕΕΠΠ ή κατά τον αρχικό σχεδιασμό της παρέμβασης.

Τα στοιχεία παρακολούθησης που περιλαμβάνονται στο ΕΕΠΠ, όπως και τα στοιχεία του αρχικού προγραμματισμού υλοποίησης, περιλαμβάνουν για κάθε παρέμβαση οπωσδήποτε τους στόχους και τα ορόσημα που έχουν περιληφθεί στο ΣΑΑ για τη συγκεκριμένη παρέμβαση και τα ενδιάμεσα στάδια αυτών, καθώς και τυχόν κοινούς δείκτες στους οποίους συμβάλλει η παρέμβαση, έτσι ώστε να προβλέπονται έγκαιρα τυχόν επικείμενες καθυστερήσεις και να λαμβάνονται τα κατάλληλα διορθωτικά μέτρα. Πιο συγκεκριμένα:

- Για τους στόχους: Ορίζονται, προγραμματίζονται και παρακολουθούνται:
 - οι βασικές ενέργειες (ενδιάμεσα στάδια) από τις οποίες εξαρτάται η έναρξη της περιόδου υλοποίησης (επίτευξης) του μετρούμενου στόχου
 - ενδιάμεσες τιμές επίτευξης (ενδιάμεσοι στόχοι) και τελική επίτευξη του στόχου που έχει περιληφθεί στο ΣΑΑ.
- Για τα ορόσημα: Ορίζονται, προγραμματίζονται και παρακολουθούνται:
 - οι βασικές ενέργειες (ενδιάμεσα στάδια και άλλοι δείκτες παρακολούθησης), που θα πρέπει να υλοποιηθούν μέχρι και την επίτευξη του οροσήμου που έχει περιληφθεί στο ΣΑΑ.
- Για τους κοινούς δείκτες: Ορίζονται, προγραμματίζονται και παρακολουθούνται (όπου εφαρμόζεται):
 - ενδιάμεσες τιμές επίτευξης (ενδιάμεσοι στόχοι) και τελική επίτευξη της τιμής-στόχου των κοινών δεικτών που έχουν περιληφθεί στο ΣΑΑ και στους οποίους συμβάλλει η παρέμβαση.

Τα ΕΕΠΠ, εγκρίνονται από τη ΣΑ ή από τον αρμόδιο Φορέα Παρακολούθησης εάν έχει οριστεί, η οποία / ο οποίος πιστοποιεί την πρόοδο μετά από διενέργεια επαλήθευσης της επίτευξης των στόχων και οροσήμων για το σύνολο των παρεμβάσεων (100%), βάσει των στοιχείων που δηλώνονται (βλ. παρ. 3.3.2.4).

Τα στοιχεία των ΕΕΠΠ διατίθενται μέσω του ΠΣΠ στη ΣΑ και στους ΦΠ για την εξαγωγή συγκεντρωτικών αναφορών.

Η ΣΑ, σε συνεργασία με τους Φορείς Παρακολούθησης για τις περιπτώσεις που αυτοί έχουν οριστεί, μεριμνά για τη συνεισφορά των ΦΥ στην επίσπευση όλων των απαιτούμενων ενεργειών για την αντιμετώπιση των κινδύνων και θεμάτων προς επίλυση που εντοπίζονται στο ΕΕΠΠ.

Επισημαίνεται ότι, μέχρι την έναρξη της παραγωγικής λειτουργίας του ΠΣΠ, η ενημέρωση της ΣΑ και των ΦΠ σχετικά με την πρόοδο υλοποίησης των παρεμβάσεων διενεργείται από τους ΦΥ μέσω της συμπλήρωσης κατάλληλου εντύπου σε μορφή excel (βλ. σχετικό ενδεικτικό υπόδειγμα Νο 2: «Έντυπο Ενημέρωσης Προόδου Παρέμβασης» στο Παράρτημα IV) το οποίο αποστέλλουν στην ΣΑ προς έγκριση (με τα απαραίτητα συνημμένα έγγραφα). Όλα τα έντυπα και συνημμένα έγγραφα τηρούνται από τους ΦΥ, σε ηλεκτρονική μορφή στον Φάκελο Παρέμβασης. Επίσης, τηρούνται και κεντρικά από την ΣΑ, μέχρι την έναρξη της παραγωγικής λειτουργίας του ΠΣΠ, πριν την οποία μεριμνά για την εισαγωγή των στοιχείων στο Σύστημα. Μαζί με την αποστολή των εν λόγω εντύπων, και μέχρι την έναρξη της παραγωγικής λειτουργίας του ΠΣΠ, οι ΦΥ αποστέλλουν στη ΣΑ και τις νέες εγγραφές των Καταλόγων αναδόχων / τελικών αποδεκτών ενισχύσεων που τηρούν σύμφωνα με τα αναφερόμενα στην παράγραφο 3.1.5.

3.2.3 Παρακολούθηση σε επίπεδο ΣΑΑ

Η παρακολούθηση σε επίπεδο ΣΑΑ έχει ως στόχο τη συνολική αποτίμηση της προόδου στην επίτευξη των στόχων και οροσήμων του ΣΑΑ, με βάση τα στοιχεία που συλλέγονται από την παρακολούθηση της υλοποίησης των επιμέρους παρεμβάσεων, και διενεργείται σε σύγκριση με τον αρχικό προγραμματισμό του εγκεκριμένου ΣΑΑ. Παράλληλα, η ΣΑ, μέσω της παρακολούθησης του ΣΑΑ σε κεντρικό επίπεδο, έχει την ευθύνη για τη διασφάλιση της εκτέλεσης των καθηκόντων παρακολούθησης από το σύνολο των εμπλεκόμενων φορέων σύμφωνα με τα οριζόμενα στο ΣΠΕ.

3.2.3.1 Συγκεντρωτική παρακολούθηση υλοποίησης ΣΑΑ

Η παρακολούθηση της υλοποίησης του ΣΑΑ διενεργείται μέσω της παραγωγής **Αναφορών Προόδου** (βλ. σχετικό ενδεικτικό υπόδειγμα Νο 3: «Αναφορά Προόδου» στο Παράρτημα IV), οι οποίες αποτυπώνουν σε συγκεντρωτική μορφή τα στοιχεία προόδου των επιμέρους παρεμβάσεων που διατίθενται μέσω των ΕΕΠΠ. Οι Αναφορές Προόδου μπορούν να παράγονται μέσω του ΠΣΠ οποιαδήποτε στιγμή και σε πολλαπλά επίπεδα της δεντρικής δομής του ΣΑΑ, όπως σε επίπεδο Πυλώνα (Άρθρο 3 του Κανονισμού του ΜΑΑ), Άξονα Προτεραιότητας, Component, Sub-Component, καθώς και για συγκεκριμένες ομάδες παρεμβάσεων βάσει θεματικής ή άλλης κατηγοριοποίησης (π.χ. ψηφιακά, κλιματική αλλαγή) ή/και βάσει της κατηγορίας στην οποία ανήκουν οι αρμόδιοι ΦΥ (φορείς κεντρικής κυβέρνησης, δήμοι, τοπικές αρχές, κλπ.).

Ανεξαρτήτως της χρονικής στιγμής έκδοσης και του επιπέδου της δεντρικής δομής του ΣΑΑ στο οποίο συγκεντρώνονται τα στοιχεία προόδου των επιμέρους παρεμβάσεων (επίπεδο παρακολούθησης), οι Αναφορές Προόδου περιλαμβάνουν:

- Τα βασικά στοιχεία προόδου για κάθε παρέμβαση:
 - Σωρευτικά (από την έναρξη υλοποίησης του ΣΑΑ) στοιχεία επίτευξης στόχων και οροσήμων, σε σύγκριση με τον αρχικό προγραμματισμό
 - Σωρευτικά (από την έναρξη υλοποίησης του ΣΑΑ) στοιχεία επίτευξης τιμών-στόχου των κοινών δεικτών του ΣΑΑ (όπου εφαρμόζεται)
 - Αυτοματοποιημένο χαρακτηρισμό κάθε παρέμβασης ως προς την ομαλότητα της υλοποίησής της σε σχέση με το αρχικό χρονοδιάγραμμα (traffic lights που υπολογίζονται αυτόματα βάσει: καθυστερήσεων στην έναρξη ή στη λήξη ενδιάμεσων σταδίων, καθυστερήσεων στην επίτευξη στόχων, οροσήμων και κοινών δεικτών, και αριθμού και σοβαρότητας κινδύνων και θεμάτων που εντοπίζονται και δεν έχουν επιλυθεί)
- Σωρευτικά (από την έναρξη υλοποίησης του ΣΑΑ) συγκεντρωτικά στοιχεία προόδου του οικονομικού αντικείμενου για το σύνολο των παρεμβάσεων του επιπέδου παρακολούθησης. Το οικονομικό αντικείμενο (σωρευτικά ή ανά παρέμβαση) μπορεί να παρακολουθεί η ΣΑ σε σύγκριση με τις χρηματοροές που διενεργούνται σε εθνικό επίπεδο, για τις οποίες ενημερώνεται μέσω κατάλληλης διασύνδεσης (web service) που θα αναπτυχθεί μεταξύ του ΠΣΠ και του Πληροφοριακού Συστήματος (ERP) του ΓΛτΔ. Μέχρι την επίτευξη της εν λόγω διασύνδεσης, η ΣΑ μπορεί να ενημερώνεται μέσω των πληροφοριών που θα υποβάλλονται στο ΠΣΠ από τους ΦΥ, στο πλαίσιο των ΕΕΠΠ (σύνολο δαπανών σε επίπεδο έργου μέχρι και το

τρίμηνο αναφοράς). Ειδικά στις περιπτώσεις ΦΥ εκτός κεντρικής κυβέρνησης, η ενημέρωση θα πραγματοποιείται πάντοτε με τον δεύτερο τρόπο.

Βάσει των στοιχείων των Αναφορών Προόδου, η ΣΑ μπορεί να εντοπίζει εύκολα τους κινδύνους και τα θέματα που επιφέρουν καθυστερήσεις στην υλοποίηση του ΣΑΑ και να προβαίνει έγκαιρα στις απαραίτητες ενέργειες για την αντιμετώπισή τους.

Τα στοιχεία των Αναφορών Προόδου αξιοποιούνται για την εκπόνηση των τυποποιημένων Εκθέσεων Προόδου που αποστέλλονται στην Επιτροπή στο πλαίσιο της διαδικασίας του Ευρωπαϊκού Εξαμήνου, σύμφωνα με τις απαιτήσεις του Κανονισμού του ΜΑΑ και των σχετικών Εγγράφων Καθοδήγησης, σε σύγκριση με το αρχικό εγκεκριμένο χρονοδιάγραμμα της Εκτελεστικής Απόφασης του Συμβουλίου για το ΣΑΑ.

Τις Αναφορές Προόδου μπορούν να αξιοποιούν και οι Φορείς Παρακολούθησης για την συγκεντρωτική παρακολούθηση των παρεμβάσεων των ΦΥ που εποπτεύουν.

3.2.3.2 Εποπτεία εκτέλεσης καθηκόντων παρακολούθησης από τους ΦΠ και ΦΥ

Στο πλαίσιο της παρακολούθησης σε επίπεδο ΣΑΑ και συμπληρωματικά με τη συγκεντρωτική παρακολούθηση της υλοποίησης των παρεμβάσεών του, η ΣΑ ασκεί τη συνολική εποπτεία της εκτέλεσης των καθηκόντων όλων των εμπλεκόμενων στις διαδικασίες παρακολούθησης φορέων (ΦΠ και ΦΥ). Για τον σκοπό αυτό, η ΣΑ υποστηρίζεται από τις **Αναφορές Εποπτείας** (βλ. σχετικό ενδεικτικό υπόδειγμα Νο 4: «Αναφορές Εποπτείας» στο Παράρτημα IV), οι οποίες περιλαμβάνουν:

- Αναφορές για την παρακολούθηση της υποβολής ΕΕΠΠ από τους ΦΥ σύμφωνα με τα οριζόμενα στο ΣΠΕ
- Αναφορές για την παρακολούθηση των εγκρίσεων των ΕΕΠΠ από τους ΦΠ.

Μέσω της αποτελεσματικής παρακολούθησης σε επίπεδο ΣΑΑ, καθώς και των συμπληρωματικών με αυτήν διαδικασιών του ΣΠΕ που αφορούν στη διενέργεια επαληθεύσεων και ελέγχων καθ' όλη τη διάρκεια υλοποίησης του ΣΑΑ, η ΣΑ ανταποκρίνεται στις αρμοδιότητές της που αφορούν:

- στην έγκαιρη αντιμετώπιση κινδύνων και θεμάτων που ανακύπτουν κατά την περίοδο υλοποίησης του ΣΑΑ και τη διασφάλιση της τήρησης του εγκεκριμένου χρονοδιαγράμματος,
- στη σύνταξη και υποβολή στην Επιτροπή των αιτήσεων πληρωμής και της δήλωσης διαχείρισης σύμφωνα με το εγκεκριμένο χρονοδιάγραμμα,
- στη διαβίβαση στην Επιτροπή των προβλεπόμενων από το κανονιστικό πλαίσιο εκθέσεων προόδου.

3.3 Επαληθεύσεις και Έλεγχοι

3.3.1 Εισαγωγή

Με τον όρο «επαληθεύσεις και έλεγχοι» νοούνται κάθε είδους ελεγκτικές ενέργειες που διενεργούνται σε οποιοδήποτε επίπεδο και οποιαδήποτε χρονική στιγμή, με στόχο τη διασφάλιση της χρηστής δημοσιονομικής διαχείρισης και την τήρηση του εφαρμοστέου ενωσιακού και εθνικού δικαίου που σχετίζεται με την προστασία του οικονομικού συμφέροντος της Ένωσης καθ' όλη τη διάρκεια της υλοποίησης των παρεμβάσεων του ΣΑΑ.

Οι ελεγκτικές ενέργειες που περιλαμβάνει το ΣΠΕ του ΣΑΑ, διενεργούνται σε τρία (3) επίπεδα, όπως εξηγείται αναλυτικότερα στις επόμενες παραγράφους, ως εξής:

- **Επίπεδο Α (ex ante controls):** Στο επίπεδο αυτό διενεργούνται, από τους κατά περίπτωση αρμόδιους ελέγχοντες φορείς και λειτουργούς, οι ελεγκτικές ενέργειες που αφορούν σε πρωτοβάθμιες επαληθεύσεις (verifications) της νομιμότητας και κανονικότητας της υλοποίησης των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ, καθώς και της υλοποίησής τους σύμφωνα με τις δεσμεύσεις του εγκεκριμένου ΣΑΑ. Διακρίνονται στις ακόλουθες κατηγορίες, ανάλογα με το αντικείμενο του ελέγχου και το χρονικό σημείο διενέργειάς τους:
 - Επαληθεύσεις συμβατότητας με τις πολιτικές και τη νομοθεσία περί Κρατικών Ενισχύσεων (3.3.2.1) και περί Δημοσίων Συμβάσεων (παρ. 3.3.2.2)
 - Επαληθεύσεις φυσικού και οικονομικού αντικειμένου παρεμβάσεων του ΣΑΑ (παρ. 3.3.2.3)
 - Επαληθεύσεις προόδου επίτευξης στόχων και οροσήμων του ΣΑΑ (παρ. 3.3.2.4).
- **Επίπεδο Β (ex post internal audits):** Αφορά στον ανεξάρτητο εσωτερικό έλεγχο (internal audit) των παρεμβάσεων του ΣΑΑ που διενεργείται από την Υπηρεσία Εσωτερικού Ελέγχου (ΥΕΕ) της Κυπριακής Δημοκρατίας (παρ. 3.3.3).
- **Επίπεδο Γ (ex post external audits):** Αφορά στον ανεξάρτητο εξωτερικό έλεγχο (external audit) των παρεμβάσεων του ΣΑΑ, που διενεργείται από την ανεξάρτητη Ελεγκτική Αρχή της Κυπριακής Δημοκρατίας (Γενικός Ελεγκτής της Δημοκρατίας) (παρ. 3.3.4).

Επισημαίνεται ότι οι φορείς που είναι επιφορτισμένοι με τη διενέργεια των ανωτέρω επαληθεύσεων και ελέγχων, δύνανται να πραγματοποιούν ελεγκτικές ενέργειες και πέραν των όσων αναφέρονται στο παρόν έγγραφο, όταν και όπου κατά την κρίση τους θεωρείται αναγκαίο για τη διασφάλιση της χρηστής δημοσιονομικής διαχείρισης και την τήρηση του εφαρμοστέου ενωσιακού και εθνικού δικαίου που σχετίζεται με την προστασία του οικονομικού συμφέροντος της Ένωσης.

Στις περιπτώσεις ευρημάτων που απαιτούν ενέργειες ή λήψη διορθωτικών μέτρων από τον ελεγχόμενο φορέα, ο φορέας που διενεργεί την ελεγκτική ενέργεια θέτει περιοριστικό χρονοδιάγραμμα εντός του οποίου ο ελεγχόμενος φορέας θα πρέπει να ολοκληρώσει τις απαιτούμενες ενέργειες. Τα οποιαδήποτε ευρήματα κοινοποιούνται άμεσα στους ελεγχόμενους φορείς μαζί με τις απαραίτητες διορθωτικές ενέργειες και το χρονοδιάγραμμα υλοποίησής τους. Ο

φορέας που διενεργεί την ελεγκτική ενέργεια παρακολουθεί την υλοποίηση των εισηγήσεών του και βεβαιώνεται για το κλείσιμο όλων των ευρημάτων του.

Σε όλες τις περιπτώσεις, τα αποτελέσματα των ελεγκτικών ενεργειών τηρούνται σε αρχείο των ελεγχόντων φορέων, το οποίο στη συνέχεια ενημερώνουν με όλες τις διορθωτικές ενέργειες που πραγματοποιούνται μέχρι το κλείσιμο κάθε ευρήματος που εντοπίστηκε. Τα στοιχεία αυτά θα πρέπει να είναι διαθέσιμα κάθε χρονική στιγμή προκειμένου να μπορούν να επιβεβαιωθούν από ανώτερους εθνικούς ή ευρωπαϊκούς ελέγχοντες φορείς και όργανα.

Ειδικά οι ελεγκτικοί φορείς δευτέρου και τρίτου επιπέδου, για όλες τις ελεγκτικές τους ενέργειες οι οποίες αφορούν σε επενδύσεις και μεταρρυθμίσεις του ΣΑΑ ενημερώνουν σχετικά τη ΣΑ, η οποία καταχωρίζει στο ΠΣΠ τις ελεγκτικές τους ενέργειες και τα αποτελέσματά τους.

Επισημαίνεται ότι οι προϊστάμενοι των ΦΥ είναι υπεύθυνοι για τον κατάλληλο προγραμματισμό για την υλοποίηση του Προϋπολογισμού, τα συστήματα εσωτερικού ελέγχου και την υποβολή εκθέσεων σχετικά με τον Προϋπολογισμό που βρίσκεται κάτω από την αρμοδιότητά τους, σύμφωνα με τις διατάξεις του Νόμου 20(Ι)/2014 και του περί της Διαχείρισης των Εσόδων και Δαπανών και του Λογιστικού της Δημοκρατίας Νόμου, όπως αυτοί εκάστοτε τροποποιούνται ή αντικαθίστανται και οποιουδήποτε άλλου νόμου.

3.3.2 Επίπεδο Α: Επαληθεύσεις (verifications) νομιμότητας και κανονικότητας (ex ante controls)

3.3.2.1 Έλεγχος συμβατότητας με με την εθνική και ενωσιακή νομοθεσία για τις Κρατικές Ενισχύσεις

Όσον αφορά στη συμβατότητα με την εθνική και ευρωπαϊκή νομοθεσία για τις κρατικές ενισχύσεις, σε περίπτωση που στο πλαίσιο υλοποίησης μίας παρέμβασης του ΣΑΑ χορηγούνται κρατικές ενισχύσεις, τότε ο υπεύθυνος φορέας για τη χορήγηση των κρατικών ενισχύσεων στις επιχειρήσεις, είτε αυτός είναι ο Φορέας Υλοποίησης ενός Σχεδίου Χορηγιών είτε ο Φορέας Υλοποίησης Έργου (project promoter) σε περίπτωση έργων που περιλαμβάνουν οικονομική δραστηριότητα και ενδέχεται να αποτελούν κρατική ενίσχυση, θα πρέπει να διασφαλίσει, ΠΡΙΝ από τη λήψη δεσμευτικής απόφασης για τη χορήγηση ενίσχυσης σε επιχείρηση, ότι αυτή είναι συμβατή με την εθνική και ενωσιακή νομοθεσία για τις κρατικές ενισχύσεις. Ως εκ τούτου, οι φορείς που θα εφαρμόσουν σχέδιο χορηγιών ή άλλη παρέμβαση που ενδέχεται να παρέχει κρατική ενίσχυση, θα πρέπει να κοινοποιούν προσχέδιο του Σχεδίου ή του έργου (μέτρου κρατικής ενίσχυσης) στον Έφορο Ελέγχου Κρατικών Ενισχύσεων για έγκριση ή γνωμοδότηση ανάλογα με την περίπτωση. Η κοινοποίηση πρέπει να είναι πλήρης και επακριβής και να περιέχει όλες τις αναγκαίες πληροφορίες. Κανένα μέτρο κρατικής ενίσχυσης δεν δύναται να τεθεί σε ισχύ χωρίς να έχει εκδοθεί έγκριση ή γνωμοδότηση από τον Έφορο.

Επιπρόσθετα, ο Έφορος Ελέγχου Κρατικών Ενισχύσεων κοινοποιεί στην ΕΕ – DG COMP τα μέτρα ενίσχυσης για τις περιπτώσεις που δεν εμπίπτουν σε εφαρμογή κανονισμού της Ένωσης.

3.3.2.2 Έλεγχος συμβατότητας με την εθνική και ενωσιακή νομοθεσία για τις Δημόσιες Συμβάσεις

Οι Επαληθεύσεις Δημοσίων Συμβάσεων αφορούν μόνο στις παρεμβάσεις του ΣΑΑ που υλοποιούνται μέσω Δημοσίων Συμβάσεων, και έχουν ως στόχο τη διασφάλιση της συμμόρφωσης με το οριζόντιο ενωσιακό και εθνικό κανονιστικό και θεσμικό πλαίσιο περί δημοσίων συμβάσεων.

Οι Επαληθεύσεις Δημοσίων Συμβάσεων διενεργούνται από τη Διεύθυνση Δημοσίων Συμβάσεων του Γενικού Λογιστηρίου της Δημοκρατίας, που αποτελεί την Αρμόδια Αρχή Δημοσίων Συμβάσεων (ΑΑΔΣ), καθ' όλη τη διάρκεια υλοποίησης των παρεμβάσεων του ΣΑΑ, μετά από σχετικό αίτημα που αποστέλλουν οι ΦΥ σύμφωνα με τις υποχρεώσεις τους όπως αυτές απορρέουν από το ισχύον θεσμικό πλαίσιο.

Η ανάγκη για εξασφάλιση πιστοποιητικού συμβατότητας τόσο για έγγραφα διαγωνισμού όσο και για ανάθεση της σύμβασης ισχύει για διαγωνισμούς των οποίων η εκτιμώμενη αξία υπερβαίνει τα:

- €500,000 για υπηρεσίες και προμήθειες
- €1 εκ. για έργα.

Στις περιπτώσεις όπου ο διαγωνισμός αφορά σε διαδικασία με διαπραγμάτευση, επιπλέον των πιο πάνω, υπάρχει υποχρέωση για εξασφάλιση εκ των προτέρων έγκρισης για προσφυγή στη διαδικασία διαπραγμάτευσης ανεξαρτήτως ποσού.

Οι Φορείς Υλοποίησης επισυνάπτουν τα πιστοποιητικά συμβατότητας που λαμβάνουν από την ΑΑΔΣ στα ΕΕΠΠ που υποβάλλουν σε τριμηνιαία βάση, ώστε να μπορεί να τα επαληθεύσει η ΣΑ ή/και ο ΦΠ, εάν έχει οριστεί.

Η πληροφορία για τον σχεδιασμό και την πρόοδο των διαδικασιών ανάθεσης και σύναψης Δημοσίων Συμβάσεων οι οποίες δυνητικά θα αποτελέσουν αντικείμενο επαληθεύσεων της ΑΑΔΣ, προκύπτει από το ΠΣΠ μέσω της ειδικά διαμορφωμένης αναφοράς **«Κατάλογος Δημοσίων Συμβάσεων»**, η οποία συγκεντρώνει τα πιο επίκαιρα στοιχεία για το σύνολο των Δημοσίων Συμβάσεων των παρεμβάσεων του ΣΑΑ, βάσει:

- Του αρχικού προγραμματισμού των παρεμβάσεων του ΣΑΑ, που συμπληρώνεται κατά τη διαδικασία έναρξης και προγραμματισμού και
- Των επικαιροποιημένων στοιχείων των ΕΕΠΠ που υποβάλλουν μέσω του ΠΣΠ όλοι οι ΦΥ σε τριμηνιαία βάση.

Τον Κατάλογο Δημοσίων Συμβάσεων, με την επιλογή κατάλληλων φίλτρων (π.χ. τύπος ΦΥ, είδος ΔΣ –υπηρεσίες/προμήθειες ή έργο, προϋπολογισμός, προβλεπόμενη ημερομηνία δημοσίευσης διακήρυξης), χρησιμοποιεί η ΣΑ (και ο αρμόδιος ΦΠ, εάν έχει οριστεί), προκειμένου να επαληθεύσουν ότι οι ΦΥ εκπλήρωσαν τις υποχρεώσεις τους για την εξασφάλιση των απαιτούμενων πιστοποιητικών¹¹.

¹¹ Η δυνατότητα αυτή θα δίνεται στους ΣΑ/ΦΠ μέχρι την ανάπτυξη κατάλληλης λειτουργικότητας στο Πληροφοριακό Σύστημα e-Procurement, οπότε και θα λαμβάνει τα απαιτούμενα στοιχεία από εκεί.

3.3.2.3 Επαληθεύσεις φυσικού και οικονομικού αντικειμένου επενδύσεων και μεταρρυθμίσεων

Οι επαληθεύσεις του φυσικού και οικονομικού αντικειμένου των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ, διενεργούνται σύμφωνα με τις εθνικές διαδικασίες που ακολουθούνται κατ' αναλογία των περιπτώσεων υλοποίησης έργων που χρηματοδοτούνται αποκλειστικά από εθνικούς πόρους, και ειδικότερα σύμφωνα με τα προβλεπόμενα στον Νόμο 20(Ι)/2014¹² και στον Νόμο 38(Ι)/2014¹³ και τις σχετικές εγκυκλίους, όπως ισχύουν. Οι διαδικασίες που εφαρμόζονται διαφοροποιούνται ανάλογα με το αν ο ΦΥ ανήκει ή όχι στην Κεντρική Κυβέρνηση (υπουργεία, υφυπουργεία, τμήματα, φορείς συνταγματικών εξουσιών και υπηρεσιών, ανεξάρτητα γραφεία που περιλαμβάνονται στον προϋπολογισμό της Δημοκρατίας).

Σημειώνεται ότι ειδικά για τους ΦΥ που ανήκουν στην Κεντρική Κυβέρνηση, τον ρόλο του θεματοφύλακα της ορθής και αποτελεσματικής δημοσιονομικής διαχείρισης επιτελούν οι ελέγχοντες λειτουργοί, δυνάμει των προνοιών του περί Προϋπολογισμού Νόμου, του περί Δημοσιονομικής Ευθύνης και Δημοσιονομικού Πλαισίου Νόμου (Νόμος Αρ. 20(Ι)/2014).

Οι ΦΥ εκτός Κεντρικής Κυβέρνησης εφαρμόζουν ανάλογους ελεγκτικούς μηχανισμούς, όπως περιγράφεται στην παράγραφο 3.3.2.3.2.

3.3.2.3.1 Επαληθεύσεις επενδύσεων και μεταρρυθμίσεων ΦΥ Κεντρικής Κυβέρνησης

Βασική αρχή της Κυπριακής Δημοκρατίας για τη διενέργεια των επαληθεύσεων επενδύσεων και μεταρρυθμίσεων του ΣΑΑ, αποτελεί ο διαχωρισμός καθηκόντων μεταξύ των εμπλεκόμενων, προκειμένου να διασφαλίζεται ότι κανείς δεν μπορεί να ασκεί πλήρη εξουσία σε οποιαδήποτε οικονομική διαδικασία. Προς αυτή την κατεύθυνση, και σύμφωνα με τα οριζόμενα στον Ν. 20(Ι)2014 και στην Εγκύκλιο 1730/2014 στην οποία ορίζονται οι διαδικασίες για τη διεκπεραίωση της πληρωμής των δαπανών που προκύπτουν από τιμολόγια ή άλλα παραστατικά πληρωμής, καθώς και οι έλεγχοι που θα πρέπει να διενεργούνται σε κάθε στάδιο της διαδικασίας, ορίζονται οι ακόλουθοι διακριτοί ρόλοι με αντίστοιχες αρμοδιότητες και διαδικασίες για την επαλήθευση του φυσικού αντικειμένου και τη διεκπεραίωση των πληρωμών των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ:

- Στάδιο 1: Ο *Ελέγχων Λειτουργός (Controlling Officer)*, για κάθε επένδυση / μεταρρύθμιση του ΣΑΑ, ορίζει τους Αρμόδιους Λειτουργούς που θα είναι υπεύθυνοι για τον συντονισμό της υλοποίησης του φυσικού και οικονομικού αντικειμένου της επένδυσης / μεταρρύθμισης. Μπορεί να ορίζεται ένας Αρμόδιος Λειτουργός για κάθε επένδυση / μεταρρύθμιση ή για κάθε επιμέρους δέσμευση που εκτελείται στο πλαίσιο της επένδυσης / μεταρρύθμισης.
- Στάδιο 2: Ο *Αρμόδιος Λειτουργός (Responsible Officer)*, με την υποστήριξη των στελεχών των ομάδων έργων και των Επιτροπών Παραλαβής που δύναται να έχουν συσταθεί όποτε απαιτείται, κατ' αντιστοιχία με τα οριζόμενα στην ΚΔΠ 138/2016:

¹² Ο Περί της Δημοσιονομικής Ευθύνης και του Δημοσιονομικού Πλαισίου

¹³ Ο Περί της Λογιστικής και Δημοσιονομικής Διαχείρισης και Χρηματοοικονομικού Ελέγχου της Δημοκρατίας

- Διενεργεί την επαλήθευση του φυσικού αντικειμένου των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ ελέγχοντας τις παρεχόμενες υπηρεσίες / προμήθειες ή την πρόοδο υλοποίησης έργων σχεδίων χορηγιών σύμφωνα με τα οριζόμενα στις σχετικές συμβάσεις και απαιτήσεις των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ. Για τον έλεγχο των παρεχόμενων υπηρεσιών / προμηθειών δύναται να διενεργούνται ολικοί ή μακροσκοπικοί έλεγχοι των παραδοτέων ή των δελτίων προόδου υλοποίησης για τις περιπτώσεις έργων σχεδίων χορηγιών, σύμφωνα με τα οριζόμενα στα κατά περίπτωση συμφωνητικά.

- Προβαίνει στην παραλαβή (ή απόρριψη) των υπηρεσιών / προμηθειών και επικοινωνεί με τον κατά περίπτωση ανάδοχο / προμηθευτή / τελικό αποδέκτη ενίσχυσης για την αποστολή του σχετικού τιμολογίου / παραστατικού.

- Κατόπιν υποβολής του σχετικού τιμολογίου / παραστατικού, αναλαμβάνει να επαληθεύσει την ορθότητα κάθε δαπάνης και να εισηγηθεί την πληρωμή της προς τον Ελέγχοντα Λειτουργό. Ειδικά για τις δαπάνες που αφορούν στην καταβολή χορηγίας / ενίσχυσης στο πλαίσιο έργων Σχεδίων Χορηγιών, ο Αρμόδιος Λειτουργός μπορεί να διενεργεί και επιτόπιες επαληθεύσεις, σύμφωνα με τα οριζόμενα στον Οδηγό Εφαρμογής του Σχεδίου.

Τυχόν τροποποιήσεις των οριζόμενων στις συμβάσεις και απαιτήσεις των επενδύσεων / μεταρρυθμίσεων, κατ' αναλογία των οριζόμενων στην ΚΔΠ 138/2016, ελέγχονται:

- Για τις δημόσιες συμβάσεις: από τις αρμόδιες Τμηματικές Επιτροπές Αλλαγών και Απαιτήσεων, καθώς και από τις Κεντρικές Επιτροπές Αλλαγών και Απαιτήσεων.

- Για έργα σχεδίων χορηγιών: από την ομάδα διαχείρισης του σχεδίου που εξετάζει αιτήματα αλλαγών.

Οποιοσδήποτε ουσιαστικές αλλαγές στις συμβάσεις ή συμφωνίες που έχουν επιπτώσεις πάνω στη βιωσιμότητα και την προσιτότητα των έργων εγκρίνονται εκ των προτέρων από τον Υπουργό Οικονομικών, σύμφωνα με τις διατάξεις του άρθρου 88 του Ν. 20(Ι)/2014.

Στις περιπτώσεις επενδύσεων / μεταρρυθμίσεων που αφορούν σε Κατασκευαστικά Έργα, Αρμόδιος Λειτουργός είναι ο Μηχανικός του Έργου, ο οποίος αναλαμβάνει την διενέργεια των απαραίτητων οικονομικών και ποσοτικών ελέγχων του «Λογαριασμού Πληρωμής», καθώς και την ετοιμασία του απαραίτητου Πιστοποιητικού Πληρωμής.

Σημειώνεται ότι στις περιπτώσεις επενδύσεων / μεταρρυθμίσεων του Υπουργείου Μεταφορών Επικοινωνιών και Έργων, στο Στάδιο αυτό απαιτείται επιπρόσθετα και η έγκριση της Διεύθυνσης Ελέγχου του Υπουργείου Μεταφορών Επικοινωνιών και Έργων.

- Στάδιο 3: Ο Ελέγχων Λειτουργός (Controlling Officer), ο οποίος μεταξύ άλλων, έχει την ευθύνη της υλοποίησης του προϋπολογισμού του ΦΥ, και κατ' επέκταση και των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ, στη βάση της αρχής της χρηστής χρηματοοικονομικής διαχείρισης, καθώς και την αρμοδιότητα της εξουσιοδότησης της διενέργειας δαπανών, μετά τον πρωτοβάθμιο έλεγχο που διενεργείται από τον Αρμόδιο Λειτουργό (και την Διεύθυνση Ελέγχου του ΥΜΕΕ, στις περιπτώσεις που απαιτείται), δίνει την τελική έγκριση για την πληρωμή της δαπάνης και εξουσιοδοτεί τη ΔΧΔ για τη διενέργειά της. Πριν από την έγκριση της πληρωμής, ο Ελέγχων Λειτουργός ελέγχει αν ο Αρμόδιος Λειτουργός έχει εκτελέσει τα καθήκοντά του με ικανοποιητικό τρόπο και ειδικότερα σύμφωνα με τα οριζόμενα στην Εγκύκλιο 1730/2014. Ο Ελέγχων Λειτουργός μεταξύ άλλων ελέγχει αν:

- οι υπηρεσίες / προμήθειες έχουν εκτελεστεί ικανοποιητικά, λαμβάνοντας υπόψη τα πιστοποιητικά παραλαβής των αρμόδιων Επιτροπών,
- οι όροι των σχετικών συμβάσεων έχουν εκτελεστεί,
- οι διαδικασίες που ακολουθήθηκαν για τη διενέργεια της κάθε δαπάνης είναι σύμφωνες με το ισχύον νομοθετικό πλαίσιο,
- οι τιμές είναι λογικές και δικαιολογημένες, σύμφωνα με τις τρέχουσες τιμές της αγοράς ή διατίμησης,
- υπάρχει θέμα διπλής πληρωμής για τον ίδιο σκοπό.

Για την άσκηση των αρμοδιοτήτων του, ο Ελέγχων λειτουργός λαμβάνει υπόψη τις οικονομοτεχνικές μελέτες σκοπιμότητας, τις τεχνικές προδιαγραφές και σχέδια, τους όρους των προσφορών και συμβολαίων, των διαδικασιών που ακολουθήθηκαν για ζήτηση, αξιολόγηση και κατακύρωση προσφορών, καθώς και των διαδικασιών τροποποιήσεων/αλλαγών στις συμβάσεις για τις επενδύσεις / μεταρρυθμίσεις ευθύνης του.

- Στάδιο 4: Το Λογιστικό Προσωπικό (Accounting Staff) της ΔΧΔ του ΓΛΤΔ, με την υποστήριξη του Γραμματειακού Προσωπικού¹⁴ (Accounting Support Staff) που είναι τοποθετημένο στο Λογιστήριο του ΦΥ έχει την ευθύνη της προώθησης της οικονομικής πτυχής των εγκρίσεων που έχουν ληφθεί από τον Ελέγχοντα Λειτουργό. Ειδικότερα, καταχωρεί στο σύστημα χρηματοοικονομικής διαχείρισης (FIMAS - μελλοντικά ERP) τα απαραίτητα στοιχεία (τιμολόγιο, συνοδευτικά έγγραφα, σημειώματα έγκρισης αγοράς, κλπ.) και διενεργεί την πληρωμή.

Λεπτομερής ανάλυση των ως άνω διαδικασιών και των προβλεπόμενων προτυποποιημένων εντύπων που χρησιμοποιούνται, παρατίθεται στα ακόλουθα κύρια έγγραφα της εθνικής νομοθεσίας:

- Ο Περί Δημοσιονομικής Ευθύνης και Δημοσιονομικού Πλαισίου Νόμος του 2014 (20(Ι)/2014).
- Ο Περί της Λογιστικής και Δημοσιονομικής Διαχείρισης και Χρηματοοικονομικού Ελέγχου της Δημοκρατίας Νόμος του 2014 (38(Ι)/2014).
- Ο 1730/2014 Νόμος που προνοεί περί της Λογιστικής και Δημοσιονομικής Διαχείρισης και Χρηματοοικονομικού Ελέγχου της Δημοκρατίας – Διαδικασία Διεκπεραίωσης Πληρωμών.
- Ο 1786/2020 Χρηματοοικονομική Διαχείριση στο Δημόσιο Τομέα
- Ο Οδηγός Χρηματοοικονομικής Διαχείρισης στα Υπουργεία (Σεπτέμβριος 2016)
- Το Εγχειρίδιο Διαδικασιών – Συγκέντρωση της Λογιστικής Εργασίας σε Επίπεδο Υπουργείου (Δεκέμβριος 2016)
- Κανονισμοί Κυβερνητικών Αποθηκών του ΓΛΤΔ
- Δημοσιονομικές και Λογιστικές Οδηγίες του ΓΛΤΔ.

¹⁴ Ως «Γραμματειακό Προσωπικό» νοείται το προσωπικό των Λογιστηρίων που δεν είναι λογιστικοί λειτουργοί.

- Κανονιστική Διοικητική Πράξη 138/2016: Οι περί της Διαχείρισης της Εκτέλεσης Δημοσίων Συμβάσεων και των Διαδικασιών Αποκλεισμού των Οικονομικών Φορέων από Διαδικασίες Σύναψης Δημοσίων Συμβάσεων Κανονισμοί του 2016, οι οποίοι εκδόθηκαν από το Υπουργικό Συμβούλιο δυνάμει των άρθρων 57 και 93 του περί της Ρύθμισης των Διαδικασιών Σύναψης Δημοσίων Συμβάσεων και για Συναφή θέματα Νόμου του 2016.

3.3.2.3.2 *Επαληθεύσεις επενδύσεων και μεταρρυθμίσεων ΦΥ εκτός Κεντρικής Κυβέρνησης*

Όσον αφορά τους ΦΥ εκτός Κεντρικής Κυβέρνησης, στο σύνολό τους διαθέτουν εσωτερικές διαδικασίες επαλήθευσης του φυσικού και οικονομικού αντικειμένου, κατ' αναλογία των διαδικασιών που προβλέπονται και εφαρμόζονται από τους ΦΥ της Κεντρικής Κυβέρνησης.

Συγκεκριμένα, κατ' εφαρμογή των οριζόμενων στον Ν. 38(Ι)/2014:

- ανεξάρτητα από το ύψος του ποσού της επένδυσης/μεταρρύθμισης, οι ΦΥ πρέπει να συμμορφώνονται με τις αρχές της χρηστής χρηματοοικονομικής διαχείρισης, να λειτουργούν με διαφάνεια και στη βάση της αρχής της ίσης μεταχείρισης και να διασφαλίζουν και να αποδεικνύουν ότι ο εγκεκριμένος προϋπολογισμός αξιοποιείται προς το σκοπό για τον οποίο αυτός παρέχεται, ενώ
- σε συνάρτηση με το ύψος του ποσού της επένδυσης/μεταρρύθμισης, οι ΦΥ πρέπει να διασφαλίζουν την εφαρμογή αποδοτικού και αποτελεσματικού συστήματος εσωτερικού ελέγχου, να χρησιμοποιούν λογιστικό σύστημα, το οποίο να δίνει ακριβή, ολοκληρωμένη και αξιόπιστη πληροφόρηση ανά πάσα στιγμή, να υπόκεινται σε ανεξάρτητο έλεγχο, ο οποίος διενεργείται σύμφωνα με τα Διεθνή Πρότυπα Ελέγχου και ο οποίος περιλαμβάνει τις οικονομικές καταστάσεις, να εφαρμόζουν κατάλληλους κανόνες και διαδικασίες, ώστε να διασφαλίζεται και να αποδεικνύεται η ορθολογιστική διαχείριση του διαθέσιμου προϋπολογισμού για την υλοποίηση της επένδυσης/μεταρρύθμισης.

Ειδικά για τους ΦΥ που είναι Αρχές Τοπικής Αυτοδιοίκησης, βάσει του άρθρου 90 του Ν. 20(Ι)/2014 και τηρουμένων των διατάξεων του περί Δήμων Νόμου και του περί Κοινοτήτων Νόμου, όπως αυτοί εκάστοτε τροποποιούνται ή αντικαθίστανται, καθώς και άλλων συναφών νόμων, ο Υπουργός Οικονομικών είναι υπεύθυνος για τη διασφάλιση συγκροτημένης οικονομικής διαχείρισης από τους δήμους και τις κοινότητες, ασκώντας τις εξουσίες που του παρέχονται από τις διατάξεις του Ν. 20(Ι)/2014. Ο Υπουργός συνεργάζεται με τον Υπουργό Εσωτερικών για την εκτέλεση των εν λόγω καθηκόντων του.

3.3.2.4 *Επαληθεύσεις προόδου επίτευξης στόχων και οροσήμων του ΣΑΑ*

Πέραν των επαληθεύσεων του φυσικού και οικονομικού αντικειμένου των παρεμβάσεων του ΣΑΑ οι οποίες διενεργούνται, όπως και για όλα τα έργα που χρηματοδοτούνται από εθνικούς πόρους, σύμφωνα με τις εθνικές διαδικασίες επαληθεύσεων και ελέγχου που περιεγράφηκαν στην προηγούμενη παράγραφο, ειδικά για τις παρεμβάσεις του ΣΑΑ απαιτείται και ένα επιπρόσθετο είδος επαλήθευσης, που είναι οι Επαληθεύσεις της προόδου επίτευξης των στόχων και οροσήμων του ΣΑΑ.

Οι επαληθεύσεις αυτές διενεργούνται από τη Συντονιστική Αρχή, ή από τους αρμόδιους Φορείς Παρακολούθησης (ΦΠ), εάν έχουν οριστεί, και αφορούν στην επαλήθευση των στοιχείων προόδου επίτευξης των στόχων και οροσήμων κάθε παρέμβασης που υποβάλλουν οι ΦΥ μέσω των ΕΕΠΠ, σε τριμηνιαία βάση.

Όπως παρουσιάζεται στην περιγραφή της διαδικασίας παρακολούθησης (βλ. παρ. 3.2), το κύριο μέρος του ΕΕΠΠ που υποβάλλεται για κάθε παρέμβαση από τον ΦΥ, αφορά στην πρόοδο της επίτευξης των στόχων και οροσήμων της παρέμβασης, καθώς και των ενδιάμεσων σταδίων αυτών, συγκριτικά με τον αρχικό προγραμματισμό που αποτυπώνεται στη Δέσμευση Προγραμματισμού ο οποίος απορρέει από τον προγραμματισμό των στόχων και οροσήμων κάθε παρέμβασης όπως αυτά έχουν αποτυπωθεί στο εγκεκριμένο ΣΑΑ.

Η ΣΑ ή ο αρμόδιος ΦΠ επαληθεύει οπωσδήποτε την πρόοδο επίτευξης που δηλώνεται από τους ΦΥ στα ΕΕΠΠ για το σύνολο (100%) των παρεμβάσεων ευθύνης τους, ειδικά για τους στόχους και τα ορόσημα για τα οποία υπάρχει συγκεκριμένη δέσμευση στο εγκεκριμένο κείμενο του ΣΑΑ:

- **α) Διοικητικά:** Σε κάθε περίπτωση (100% των ΕΕΠΠ), εξετάζοντας το σχετικό υλικό που επισυνάπτει ο ΦΥ στο ΕΕΠΠ για την τεκμηρίωση της επίτευξης που δηλώνεται για κάθε στόχο και ορόσημο, και
- **β) Επιτόπια:** Εφόσον η ΣΑ ή ο ΦΠ το κρίνει απαραίτητο και στην περίπτωση που η πρόοδος επίτευξης των στόχων και οροσήμων δεν μπορεί να τεκμηριωθεί διοικητικά, δηλ. με την επισύναψη κάποιου εγγράφου στο ΕΕΠΠ.

Επιπρόσθετα, η ΣΑ / ο ΦΠ δύναται να επαληθεύσει με τον ίδιο τρόπο (διοικητικά ή/και επιτόπια), εφόσον το κρίνει απαραίτητο, και την πρόοδο επίτευξης που δηλώνεται σχετικά με τα ενδιάμεσα στάδια των στόχων και οροσήμων της παρέμβασης, όπως αυτά ορίζονται στη Δέσμευση Προγραμματισμού.

Επισημαίνεται ότι ο τρόπος τεκμηρίωσης κάθε στόχου και οροσήμου του ΣΑΑ, καθώς και κάθε ενδιάμεσου σταδίου, είναι προδιαγεγραμμένος και αποτυπώνεται στους όρους της Δέσμευσης Προγραμματισμού της παρέμβασης, σε συμφωνία με τη μεθοδολογία πιστοποίησης που έχει οριστεί στο ΣΑΑ.

Η ΣΑ / ο ΦΠ διενεργεί επιπλέον διοικητική επαλήθευση της έκδοσης των κατά περίπτωση απαιτούμενων πιστοποιητικών / γνωμοδοτήσεων συμβατότητας με τη νομοθεσία περί δημοσίων συμβάσεων και κρατικών ενισχύσεων που οι ΦΥ λαμβάνουν από την ΑΑΔΣ ή τον Έφορο Ελέγχου Κρατικών Ενισχύσεων αντίστοιχα και επισυνάπτουν στα ΕΕΠΠ.

Μετά τη διενέργεια της επαλήθευσης, και εφόσον δεν υπάρχουν ευρήματα, η ΣΑ / ο ΦΠ επικυρώνει το ΕΕΠΠ μέσω του ΠΣΠ και τα στοιχεία του είναι πλέον διαθέσιμα προς όλους τους ενδιαφερόμενους και προς τη ΣΑ για σκοπούς κεντρικής παρακολούθησης της προόδου υλοποίησης του ΣΑΑ. Μέχρι την έναρξη της παραγωγικής λειτουργίας του ΠΣΠ, η ΣΑ επικυρώνει το αρχείο excel του ΕΕΠΠ χαρακτηρίζοντάς το ως «επικυρωμένο», ενώ ο ΦΠ προωθεί το ΕΕΠΠ προς την ΣΑ μέσω ηλεκτρονικής αλληλογραφίας η οποία πιστοποιεί και την επικύρωσή του.

Σε κάθε περίπτωση (πριν ή μετά την έναρξη της παραγωγικής λειτουργίας του ΠΣΠ), τα επικυρωμένα ΕΕΠΠ είναι στη διάθεση των ΥΕΕ και ΕΥ για τον εκ των υστέρων έλεγχο της επίτευξης των στόχων και οροσήμων των παρεμβάσεων του ΣΑΑ.

Η διαδικασία επαλήθευσης της επίτευξης των στόχων και οροσήμων του ΣΑΑ είναι κοινή για κάθε είδους παρέμβαση (επένδυση / μεταρρύθμιση, δημόσια σύμβαση / σχέδιο χορηγιών / μεταρρύθμιση με ίδιους πόρους).

3.3.3 Επίπεδο Β: Ανεξάρτητος Εσωτερικός Έλεγχος (ex post internal audit)

Στο επίπεδο του Ανεξάρτητου Εσωτερικού Ελέγχου (internal audit) των παρεμβάσεων του ΣΑΑ εντάσσονται οι λειτουργίες της Υπηρεσίας Εσωτερικού Ελέγχου (ΥΕΕ) της Κυπριακής Δημοκρατίας.

Με τον περί Εσωτερικού Ελέγχου Νόμο του 2003 [Ν 114(Ι)/2003] συστάθηκε η ΥΕΕ, της οποίας προϊστάται ο Έφορος Εσωτερικού Ελέγχου της Δημοκρατίας, ο οποίος φέρει την ευθύνη για την πιστή και αποτελεσματική εφαρμογή των διατάξεων του Νόμου 114(Ι)/2003 και είναι αρμόδιος για τη διενέργεια του εσωτερικού ελέγχου στις Κρατικές Υπηρεσίες. Η ΥΕΕ, μεταξύ άλλων, σύμφωνα και με το άρθρο 9 του Νόμου 114(Ι)/2003, έχει την ευχέρεια να διενεργεί έλεγχο σε οποιαδήποτε δραστηριότητα, οποιουδήποτε δημόσιου οργανισμού που ανήκει στην Κεντρική Κυβέρνηση, και για το σκοπό αυτό δύναται να ακολουθήσει οποιαδήποτε μεθοδολογία και προσέγγιση κρίνει σκόπιμο. Βασικό χαρακτηριστικό γνώρισμα της ΥΕΕ είναι η λειτουργική και διοικητική ανεξαρτησία της από τους ελεγχόμενους οργανισμούς. Γι' αυτό, με βάση το άρθρο 10 του Νόμου 114(Ι)/2003, η ΥΕΕ είναι ανεξάρτητη από τη Διεύθυνση του ελεγχόμενου οργανισμού και δεν επιτρέπεται να έχει οποιαδήποτε άμεση αρμοδιότητα για, ή εξουσία πάνω στις δραστηριότητες που αποτελούν αντικείμενο ελέγχου ούτε να μετέχει σε οποιαδήποτε απόφαση εκτελεστικής φύσεως.

Προκειμένου η ΥΕΕ να ανταποκρίνεται στο ρόλο της, σύμφωνα με το άρθρο 11 του Νόμου 114(Ι)/2003, εξουσιοδοτείται όπως:

- έχει πρόσβαση σε εύλογο χρόνο σε όλα τα βιβλία, έγγραφα, λογαριασμούς, περιουσία, εντάλματα πληρωμής, αποδείξεις είσπραξης, αρχεία, αλληλογραφία και άλλα δεδομένα τα οποία είναι αναγκαία για την κατάλληλη εκτέλεση της εργασίας του εσωτερικού ελέγχου.
- έχει το δικαίωμα να εισέρχεται σε οποιαδήποτε κτίρια ή άλλες εγκαταστάσεις και να ζητεί από οποιοδήποτε Λειτουργό να παρέχει όλη την πληροφόρηση και όλες τις επεξηγήσεις που κρίνονται απαραίτητες για τη διαμόρφωση γνώμης και ο κάθε Λειτουργός θα πρέπει να ανταποκρίνεται έγκαιρα στην παροχή τέτοιων εξηγήσεων.

Στην περίπτωση που οποιοσδήποτε χωρίς νόμιμη δικαιολογία, παρεμποδίζει ή παρακωλύει με οποιοδήποτε τρόπο τον Έφορο ή οποιοδήποτε πρόσωπο που συμμετέχει σε οποιονδήποτε έλεγχο στη διεκπεραίωση της εργασίας τους είναι ένοχος αδικήματος.

Η μεθοδολογία που ακολουθεί η ΥΕΕ κατά τη διεξαγωγή εσωτερικού ελέγχου στις Κρατικές Υπηρεσίες ως Σύμβουλος του Κράτους είναι με βάση τα εγχειρίδια που εκπονήθηκαν σύμφωνα με τα Διεθνή Πρότυπα Επαγγελματικής Άσκησης του Εσωτερικού Ελέγχου του Διεθνούς Ινστιτούτου Εσωτερικών Ελεγκτών. Τα εγχειρίδια προσφέρουν καθοδήγηση και στήριξη στους Λειτουργούς της Υπηρεσίας κατά τη διεκπεραίωση των καθηκόντων τους όσον αφορά βέλτιστες πρακτικές, τεχνικές και μεθοδολογίες ελέγχου και καλύπτουν θέματα όπως ο σχεδιασμός και ο προγραμματισμός των ελέγχων, η τεκμηρίωση των ευρημάτων του ελέγχου και η σύνταξη των εκθέσεων ελέγχου.

A) Ακολουθούμενη διαδικασία εσωτερικού ελέγχου

Στο τέλος κάθε έτους, η ΥΕΕ καταρτίζει Ετήσιο Πρόγραμμα Ελέγχου για το επόμενο ημερολογιακό έτος. Ειδικά για τα έτη 2021 έως 2026, το Ετήσιο Πρόγραμμα θα περιλαμβάνει ειδικό άξονα προτεραιότητας για τους φορείς υλοποίησης των παρεμβάσεων του ΣΑΑ.

Με την έγκριση του ΣΑΑ και την έναρξη της υλοποίησης των επενδύσεων και μεταρρυθμίσεων που περιλαμβάνει, η ΥΕΕ προβαίνει στις ακόλουθες ενέργειες:

- Λήψη κατάστασης από τη ΣΑ, με όλες τις επενδύσεις και μεταρρυθμίσεις που εγκρίθηκαν προς χρηματοδότηση στο πλαίσιο του ΣΑΑ.
- Αξιολόγηση της επικινδυνότητας των επενδύσεων και μεταρρυθμίσεων, λαμβάνοντας υπόψη, μεταξύ άλλων, τις ακόλουθες τρεις παραμέτρους:
 - (α) τη σημαντικότητα κάθε παρέμβασης με βάση το ποσό της χρηματοδότησης (materiality),
 - (β) τη φύση των εργασιών υλοποίησης της παρέμβασης,
 - (γ) τη χρονική διεκπεραίωση της.

Β) Έλεγχος συστημάτων (system audits) του ΣΑΑ

Πέραν της διαδικασίας κατάρτισης του Ετήσιου Προγράμματος Ελέγχου που αναφέρθηκε προηγουμένα, η ΥΕΕ είναι αρμόδια για τη διεξαγωγή ελέγχων των συστημάτων εσωτερικού ελέγχου της Συντονιστικής Αρχής και των Φορέων Παρακολούθησης των παρεμβάσεων του ΣΑΑ όσον αφορά τις αρμοδιότητες που τους έχουν ανατεθεί (συμπεριλαμβανόμενων και των διαδικασιών επαληθεύσεων της επίτευξης των στόχων και οροσήμων του ΣΑΑ).

Γ) Επιπρόσθετος έλεγχος επαλήθευσης στόχων και οροσήμων του ΣΑΑ

Επιπρόσθετα των πιο πάνω ελέγχων, η ΥΕΕ θα διενεργεί έλεγχο επαλήθευσης της επίτευξης των στόχων και οροσήμων δύο φορές κατ' έτος και τα αποτελέσματα του ελέγχου θα λαμβάνονται υπόψη στη σύνοψη των λογιστικών και άλλων ελέγχων.

Στα πλαίσια αυτά, η ΥΕΕ θα εφαρμόζει κατάλληλη μεθοδολογία επιλογής στόχων και οροσήμων του ΣΑΑ για θεώρηση λαμβάνοντας υπόψη τις παραμέτρους:

- (α) τη σημαντικότητα κάθε παρέμβασης με βάση το ποσό της χρηματοδότησης (materiality),
- (β) τη φύση των εργασιών υλοποίησης της παρέμβασης,
- (γ) τη χρονική διεκπεραίωση της,
- (δ) επικινδυνότητα του ΦΥ (π.χ. προηγούμενη εμπειρία με συγχρηματοδοτούμενα προγράμματα).

Με το πέρας του κάθε ελέγχου ετοιμάζεται έκθεση που περιλαμβάνει τα ευρήματα του ελέγχου και τις συστάσεις της ΥΕΕ για τα μέτρα που θα πρέπει να ληφθούν για την αντιμετώπιση των αδυναμιών που έχουν εντοπιστεί. Η έκθεση, αφού συζητηθεί με τους εμπλεκόμενους Λειτουργούς του ελεγχόμενου οργανισμού, υποβάλλεται στη Διεύθυνσή τους και παίρνει τη μορφή του Συμφωνημένου Σχεδίου Δράσης, το οποίο θα εφαρμοστεί σε προκαθορισμένο χρονοδιάγραμμα.

Η προσθήκη αξίας στα συστήματα του ελεγχόμενου οργανισμού επιτυγχάνεται με την εφαρμογή των μέτρων που περιλαμβάνονται στο Συμφωνημένο Σχέδιο Δράσης. Για το σκοπό αυτό,

διεξάγονται έλεγχοι παρακολούθησης της εφαρμογής του Συμφωνημένου Σχεδίου Δράσης ώστε η ΥΕΕ να παρακολουθεί στενά την πορεία εφαρμογής των μέτρων από τον ελεγχόμενο οργανισμό.

Η προετοιμασία του κάθε ελέγχου περιλαμβάνει τον ορισμό της ομάδας ελέγχου, τον καθορισμό του χρονοπρογραμματισμού του ελέγχου, τη συλλογή/ μελέτη/ αξιολόγηση στοιχείων και πληροφοριών που αφορούν τον έλεγχο, την ετοιμασία του Μνημονίου Προγράμματος Ελέγχου και του Προγράμματος Ελέγχου καθώς και την ενημέρωση των φορέων που πρόκειται να ελεγχθούν. Με την ολοκλήρωση του επιτόπιου ελέγχου στον ελεγχόμενο φορέα και την αξιολόγηση των ευρημάτων, η ομάδα ελέγχου ετοιμάζει προσχέδιο της Έκθεσης Ελέγχου, το οποίο αποστέλλει στον ελεγχόμενο φορέα και σε οποιονδήποτε άλλο φορέα παραπέμπονται συστάσεις. Με τη λήψη των σχολίων του ελεγχόμενου φορέα, η ομάδα ελέγχου ετοιμάζει τελική Έκθεση Ελέγχου. Η σχετική έκθεση κοινοποιείται και στη ΣΑ στις περιπτώσεις ελέγχων που αφορούν σε επενδύσεις ή μεταρρυθμίσεις του ΣΑΑ.

Τα αποτελέσματα των ελεγκτικών ενεργειών της ΥΕΕ καταχωρίζονται στο ΠΣΠ του ΣΑΑ με ευθύνη της ΣΑ προκειμένου να είναι διαθέσιμη η απαιτούμενη πληροφορία για την εξαγωγή, μέσω του συστήματος, της σύνοψης των ελέγχων που συνοδεύει τις αιτήσεις πληρωμής που υποβάλλει η ΣΑ.

Οι έλεγχοι διενεργούνται στη βάση εγχειριδίων ελέγχου και τυποποιημένων ερωτηματολογίων και εκθέσεων ελέγχου. Βασικός παράγοντας για τον καθορισμό του ελεγκτικού εύρους, είναι η αναγνώριση των πιθανών κινδύνων και η κατηγοριοποίησή τους σε υψηλού, μεσαίου και χαμηλού κινδύνου, ανάλογα με την πιθανότητα να συμβούν, αλλά και τις επιπτώσεις που θα έχουν. Επομένως προηγείται η ανάλυση των κινδύνων για τη διεξαγωγή στοχευμένων ελέγχων σε περιοχές υψηλού κινδύνου.

3.3.4 Επίπεδο Γ: Ανεξάρτητος Εξωτερικός Έλεγχος (ex post external audit)

Στο επίπεδο του Ανεξάρτητου Εξωτερικού Ελέγχου (external audit) των παρεμβάσεων του ΣΑΑ εντάσσεται ο Γενικός Ελεγκτής και η Ελεγκτική Υπηρεσία, ως ο ανεξάρτητος ελεγκτικός φορέας της Κυπριακής Δημοκρατίας.

Βάσει του Νόμου 113(Ι)/2002, ο Γενικός Ελεγκτής ο οποίος προΐσταται της Ελεγκτικής Υπηρεσίας, έχει εξουσία να ζητά οποιαδήποτε στοιχεία ή πληροφορίες σε οποιαδήποτε μορφή, περιλαμβανομένης και της ηλεκτρονικής μορφής και οποιεσδήποτε γραπτές ή προφορικές εξηγήσεις που κατά την κρίση του είναι αναγκαίες για τον έλεγχο, από τους Υπουργούς, τους δημόσιους υπαλλήλους, τους Προέδρους, τα μέλη των Συμβουλίων και τους υπαλλήλους των Νομικών Προσώπων Δημοσίου Δικαίου, τους Δημάρχους, τους Κοινοτάρχες, τα μέλη των Δημοτικών και Κοινοτικών Συμβουλίων και τους υπαλλήλους τους, τους αξιωματούχους και τους υπαλλήλους των διάφορων Υπηρεσιών της Δημοκρατίας, άλλων Αρχών ή Συμβουλίων που συστάθηκαν ή θα συσταθούν με Νόμο ή από άλλους Οργανισμούς, οι οποίοι ελέγχονται από τον Γενικό Ελεγκτή και γενικά από οποιοδήποτε πρόσωπο, το οποίο κατέχει ή είναι υπόλογο για τα στοιχεία, τις επεξηγήσεις ή τις πληροφορίες αυτές. Με βάση τον Νόμο αυτό, ο Γενικός Ελεγκτής έχει εξουσία να απαιτήσει από οποιοδήποτε πρόσωπο, το οποίο λαμβάνει χορηγία/εγγύηση/δάνειο από το Πάγιο Ταμείο ή άλλο Ταμείο του Δημοσίου, όπως παράσχει σ' αυτόν όλα τα απαιτούμενα στοιχεία, για εξακρίβωση του τρόπου διάθεσης του σχετικού ποσού. Επίσης, κατοχυρώνεται και νομικά η

εξουσία του Γενικού Ελεγκτή να διεξάγει διαχειριστικό έλεγχο σε οποιονδήποτε ελεγχόμενο Οργανισμό, για να διαπιστώσει αν αυτός λειτουργεί και χρησιμοποιεί τους διαθέσιμους πόρους του με οικονομικό, αποδοτικό και αποτελεσματικό τρόπο. Καθορίζεται, τέλος, διαδικασία για την ανάθεση, κατά την κρίση του Γενικού Ελεγκτή, ελέγχων των λογαριασμών οποιουδήποτε υπ' αυτού ελεγχόμενου Νομικού Προσώπου Δημοσίου Δικαίου, Οργανισμού Δημοσίου Δικαίου, Αρχής Τοπικής Αυτοδιοίκησης, Συμβουλίου, Ταμείου, Αρχής, Σχεδίου και οποιουδήποτε άλλου υπ' αυτού ελεγχόμενου, σε ιδιώτες ελεγκτές. Στην περίπτωση αυτή, ο Γενικός Ελεγκτής της Δημοκρατίας διατηρεί την εξουσία διεξαγωγής επιπρόσθετου διαχειριστικού ή άλλου ελέγχου.

Έλεγχοι που διεξάγονται από την Ελεγκτική Υπηρεσία

Όπως ρητά αναφέρεται στις Ελεγκτικές Οδηγίες που έχουν εκδοθεί από τον Γενικό Ελεγκτή, οι έλεγχοι της Ελεγκτικής Υπηρεσίας διεξάγονται σύμφωνα με τα Διεθνή Πρότυπα Ελέγχου (ISAs) που εκδίδονται από τη Διεθνή Ομοσπονδία Λογιστών (IFAC) και τα Διεθνή Πρότυπα Ανώτατων Ελεγκτικών Ιδρυμάτων (ISSAIs) που εκδίδει ο INTOSAI.

Η Ελεγκτική Υπηρεσία διενεργεί οικονομικούς, κανονιστικούς και διαχειριστικούς ελέγχους, όπως ορίζονται στο Πρότυπο ISSAI 100 («Θεμελιώδεις Αρχές Ελέγχου στον Δημόσιο Τομέα»). Σε αυτούς περιλαμβάνονται οι τεχνικοί και περιβαλλοντικοί έλεγχοι. Αναλυτικότερα οι τύποι των ελέγχων που διενεργούνται από την Ελεγκτική Υπηρεσία κατηγοριοποιούνται ως εξής:

- **Οικονομικός έλεγχος:** Ο οικονομικός έλεγχος αφορά στον έλεγχο των κρατικών λογαριασμών, καθώς και τον έλεγχο των οικονομικών καταστάσεων των Νομικών Προσώπων Δημοσίου Δικαίου και άλλων Οργανισμών, Ειδικών Ταμείων και των Αρχών Τοπικής Αυτοδιοίκησης και αποσκοπεί στην έκφραση γνώμης αναφορικά με τον βαθμό στον οποίο αυτές παρουσιάζουν αληθινή και δίκαιη εικόνα.
- **Κανονιστικός έλεγχος ή έλεγχος συμμόρφωσης:** Ο έλεγχος συμμόρφωσης μπορεί να διεξαχθεί ως ξεχωριστός έλεγχος ή ως μέρος ενός οικονομικού ή/και ενός διαχειριστικού ελέγχου. Οι έλεγχοι αυτοί αποσκοπούν στην αξιολόγηση του κατά πόσο οι ενέργειες του ελεγχόμενου συνάδουν με τις αρχές ή κανόνες που τον διέπουν. Οι αρχές και οι κανόνες αυτοί μπορεί να αφορούν στη συμμόρφωση με διατάξεις της νομοθεσίας, Κανονισμών ή συμφωνιών ή με τις γενικές αρχές χρηστής χρηματοοικονομικής διαχείρισης και συμπεριφοράς δημοσίων αξιωματούχων, σε σχέση με τις γενικές αρχές διοικητικού δικαίου. Ο έλεγχος συμμόρφωσης διαδραματίζει σημαντικό ρόλο στη διασφάλιση ότι πληρούνται οι αρχές της διαφάνειας, λογοδοσίας και καλής διακυβέρνησης.
- **Διαχειριστικός έλεγχος:** Ο διαχειριστικός έλεγχος αφορά στην ανεξάρτητη εξέταση ενός προγράμματος, δραστηριότητας, λειτουργίας ή των συστημάτων διαχείρισης και διαδικασιών των ελεγχόμενων οργανισμών, με σκοπό την αξιολόγηση κατά πόσο η διαχείριση των πόρων τους γίνεται με τον πιο οικονομικό, αποδοτικό και αποτελεσματικό τρόπο.
- **Τεχνικός έλεγχος:** Ο τεχνικός έλεγχος αποτελεί ανάλογα με την περίπτωση διαχειριστικό ή κανονιστικό έλεγχο και αποσκοπεί στο να εξακριβωθεί κατά πόσο η εκτέλεση των ΔΣ γίνεται αφενός σύμφωνα με τους όρους/προδιαγραφές της σύμβασης, το χρονοδιάγραμμα υλοποίησης, καθώς και τον Προϋπολογισμό τους και αφετέρου, κατά τον πιο οικονομικό, αποδοτικό και αποτελεσματικό τρόπο και ότι τα έργα προγραμματίστηκαν, σχεδιάστηκαν και

εκτελέστηκαν ικανοποιητικά. Ο έλεγχος αυτός περιλαμβάνει, μεταξύ άλλων, την εξέταση των οικονομοτεχνικών μελετών σκοπιμότητας, των τεχνικών προδιαγραφών και σχεδίων, των όρων των προσφορών / προτάσεων, των όρων των συμβολαίων, των διαδικασιών για ζήτηση, αξιολόγηση και κατακύρωση των προσφορών και έγκριση ενισχύσεων, καθώς και της διαδικασίας τροποποιήσεων/αλλαγών στις συμβάσεις και συμφωνίες χρηματοδότησης.

- **Περιβαλλοντικός έλεγχος:** Ο περιβαλλοντικός έλεγχος αποτελεί συνήθως συνδυασμό οικονομικού ελέγχου, ελέγχου συμμόρφωσης και διαχειριστικού ελέγχου, αναφορικά με ένα συγκεκριμένο θέμα που σχετίζεται με την περιβαλλοντική διακυβέρνηση.

Εφαρμοζόμενη μεθοδολογία

Η διεξαγωγή του ελεγκτικού έργου περιλαμβάνει τη συλλογή, την ανάλυση και την αξιολόγηση ελεγκτικής μαρτυρίας. Σε όλα τα στάδια και τους τύπους ελέγχου ακολουθείται η κατάλληλη ελεγκτική μεθοδολογία, που διασφαλίζει την επιτυχή διενέργειά του με αντικειμενικότητα, ακρίβεια και αξιοπιστία. Η επιλογή της κατά περίπτωση εφαρμοζόμενης μεθοδολογίας και της χρήσης προτύπων είναι στη διακριτική ευχέρεια της ΕΥ.

Ειδικά για τον διαχειριστικό και κανονιστικό έλεγχο των έργων που υλοποιούνται μέσω δημόσιας σύμβασης (που έχει τη μορφή τεχνικού ελέγχου, όπως εξηγείται πιο πάνω), η ΕΥ, στο τέλος κάθε έτους καταρτίζει ετήσιο προγραμματισμό των ελέγχων του επόμενου έτους, όπου καθορίζεται η στρατηγική που θα ακολουθηθεί, οι ανθρωπίνι πόροι που θα διατεθούν, οι αριθμοί των συμβάσεων που θα ελεγχθούν μέσω δειγματοληψίας και η βαρύτητα των κριτηρίων αξιολόγησης επικινδυνότητας που θα εφαρμοστούν, ανάλογα με τα αποτελέσματα προηγούμενων ετών, για κάθε ένα από τα τρία στάδια ελέγχου που αφορούν:

(α) στον έλεγχο εγγράφων διαγωνισμών δημοσίων συμβάσεων (εβδομαδιαία διαδικασία επιλογής δείγματος για τις περιπτώσεις υψηλής επικινδυνότητας, τριμηνιαία διαδικασία για περιπτώσεις χαμηλής επικινδυνότητας)

(β) στον έλεγχο διαδικασιών ανάθεσης δημοσίων συμβάσεων (υποβολή προσφορών, αξιολογήσεις, αποφάσεις ανάθεσης, ανάλογα με την κρίση των ελεγκτών και σύμφωνα με τον ετήσιο προγραμματισμό)

(γ) στον έλεγχο της εκτέλεσης των συμβάσεων (ανάλογα με την κρίση των ελεγκτών και σύμφωνα με τον ετήσιο προγραμματισμό).

Η δειγματοληψία περιλαμβάνει τα ακόλουθα βήματα:

1. Λαμβάνονται στοιχεία για τον συνολικό υπό έλεγχο πληθυσμό (έγγραφα διαγωνισμών, αναθέσεις ή εκτελούμενες συμβάσεις, κατά περίπτωση) από τη ΣΑ.
2. Δημιουργείται «Πίνακας Δεδομένων» με το σύνολο του υπό έλεγχο πληθυσμού
3. Κάθε εγγραφή του πίνακα βαθμολογείται βάσει συγκεκριμένων κριτηρίων επικινδυνότητας που καθορίζει η ΕΥ και αφορούν στο είδος της συμφωνίας, τον προϋπολογισμό, τον ΦΥ, το φυσικό αντικείμενο, το είδος της ακολουθούμενης διαδικασίας επιλογής αναδόχου, παρελθόντες ελέγχους, κ.ά.
4. Οι εγγραφές του πίνακα ταξινομούνται βάσει επικινδυνότητας
5. Επιλέγεται το «προς έλεγχο» δείγμα με τις περισσότερες επικίνδυνες περιπτώσεις

Το επιλεγμένο δείγμα συμπληρώνεται εκ των υστέρων με:

- περιπτώσεις για τις οποίες έχει υποβληθεί καταγγελία
- τυχαίο δείγμα από περιπτώσεις χαμηλής επικινδυνότητας
- δείγμα από παρεμβάσεις του ΣΑΑ έτσι ώστε να διασφαλίζεται ότι επιλέγεται τουλάχιστον το 3% του συνολικού αριθμού των σε εξέλιξη παρεμβάσεων του ΣΑΑ ή τουλάχιστον μία παρέμβαση κατ' έτος (το μέγιστο εκ των δύο) για κάθε ένα από τα τρία στάδια σύναψης δημόσιας σύμβασης και για κάθε κατηγορία ΦΥ (εντός κεντρικής κυβέρνησης και εκτός κεντρικής κυβέρνησης). Στην περίπτωση που κατά τα προηγούμενα βήματα της δειγματοληψίας έχουν εμφανιστεί στο δείγμα περισσότερες παρεμβάσεις του ΣΑΑ που υπερκαλύπτουν τα προαναφερόμενα όρια, επιλέγεται το αρχικό δείγμα που περιλαμβάνει τις περισσότερες παρεμβάσεις.

Τα Σχέδια Χορηγιών θα ελέγχονται εκ των υστέρων μέσω του ετήσιου ελέγχου επί των οικονομικών καταστάσεων της Δημοκρατίας (financial audit). Ο έλεγχος αυτός γίνεται με δομημένη δειγματοληψία όπως περιγράφεται σε σχετική Ελεγκτική Οδηγία της ΕΥ. Η έκταση του ελέγχου που θα διεξαχθεί καθορίζεται λαμβάνοντας υπόψη το επίπεδο επικινδυνότητας του ελεγχόμενου ή/και του τομέα ελέγχου και το είδος του ελέγχου. Στον δειγματοληπτικό έλεγχο εφαρμόζονται ελεγκτικές διαδικασίες σε λιγότερο από το 100% των μονάδων εντός του πληθυσμού που είναι σχετικός με τον έλεγχο, με τέτοιο τρόπο ώστε όλες οι μονάδες να έχουν πιθανότητα επιλογής και να παρέχεται λελογισμένη βάση για την εξαγωγή συμπερασμάτων για ολόκληρο τον πληθυσμό, από τον οποίο αντλήθηκε το δείγμα.

Λαμβάνοντας υπόψη ότι ήδη στην υφιστάμενη διαδικασία προβλέπεται η συμπλήρωση του δείγματος που έχει προκύψει από την τυχαία δειγματοληψία με την προσθήκη συναλλαγών που κρίνονται ότι θα πρέπει να προστεθούν στο δείγμα στη βάση της αξιολόγησης του υπεύθυνου της ομάδας ελέγχου, η ΕΥ έχει διαβεβαιώσει ότι, σε περίπτωση που κανένα Σχέδιο Χορηγιών δεν περιληφθεί στο τυχαίο δείγμα (ενδεχόμενο σχεδόν απίθανο), θα προστίθεται επί σκοπού τουλάχιστον μία συναλλαγή από Σχέδια Χορηγιών, ενώ οπωσδήποτε θα ελέγχονται τουλάχιστον δύο φορές μέσα στην περίοδο υλοποίησής τους τα Σχέδια Χορηγιών που υλοποιούνται από ΦΥ εκτός κεντρικής κυβέρνησης και αφορούν σε χορηγίες προς ιδιωτικούς φορείς. Στον έλεγχο που θα γίνεται θα ελέγχονται όλα τα στάδια (η πρόσκληση ΣΧ, η διαδικασία επιλογής τελικών αποδεκτών ενισχύσεων, οι συμφωνίες χρηματοδότησης και η νομιμότητα και κανονικότητα των πληρωμών).

Κοινοποίηση αποτελεσμάτων ελεγκτικής διαδικασίας

Με την αποπεράτωση του ελέγχου, ετοιμάζονται επιστολές προς τους ελεγχόμενους, στις οποίες αναφέρονται τα ευρήματα του ελέγχου μαζί με τις επισημάνσεις/εισηγήσεις/συστάσεις, τις οποίες οι ελεγχόμενοι καλούνται να σχολιάσουν και να διατυπώσουν τις απόψεις και εξηγήσεις τους. Ακολούθως, ετοιμάζεται Ειδική Έκθεση, η οποία δημοσιοποιείται με την ανάρτησή της στην ιστοσελίδα της Ελεγκτικής Υπηρεσίας και η οποία είναι προσβάσιμη σε όλους τους πολίτες της Δημοκρατίας. Είναι επιθυμητό όπως τα θέματα τύχουν επαρκούς κάλυψης από τα Μέσα Μαζικής Ενημέρωσης, αφού τούτο διασφαλίζει τη διαφάνεια των ευρημάτων και συστάσεων της Ελεγκτικής Υπηρεσίας. Οι Ειδικές Εκθέσεις που συντάσσονται κατηγοριοποιούνται στις Ειδικές Εκθέσεις Κεντρικής Κυβέρνησης, στις Ειδικές Εκθέσεις Τοπικής Αυτοδιοίκησης, καθώς και στις Ειδικές Εκθέσεις Άλλων Οργανισμών.

Τέλος, βάσει του άρθρου 116 του Συντάγματος, ο Γενικός Ελεγκτής προετοιμάζει και υποβάλλει την Ετήσια Έκθεση, η οποία περιλαμβάνει:

- Κατάλογο όλων των Ειδικών Εκθέσεων που ετοιμάστηκαν και εκδόθηκαν από την ημερομηνία υποβολής της προηγούμενης Ετήσιας Έκθεσης.
- Τον έλεγχο της Δημοσιονομικής Έκθεσης και του τελικού απολογισμού που υποβάλλεται από τον Γενικό Λογιστή στον Υπουργό, σύμφωνα με το άρθρο 78 του Νόμου Ν.20(Ι)/2014.
- Τον έλεγχο των οικονομικών καταστάσεων που περιλαμβάνουν όλους τους οικονομικούς φορείς που ετοιμάζονται από τον Γενικό Λογιστή, σύμφωνα με το άρθρο 79 του ίδιου Νόμου και των ενοποιημένων οικονομικών καταστάσεων της Γενικής Κυβέρνησης.
- Την Έκθεση του ιδιώτη ελεγκτή, στον οποίο η Υπηρεσία αυτοβούλως αναθέτει τον έλεγχο των οικονομικών της καταστάσεων.

Όλες οι Ειδικές και Ετήσιες Εκθέσεις δημοσιεύονται από την Ελεγκτική Υπηρεσία στην ιστοσελίδα της. Η ΣΑ λαμβάνει τα στοιχεία των Εκθέσεων και μεριμνά για την καταχώρισή τους στο ΠΣΠ του ΣΑΑ, προκειμένου να είναι διαθέσιμη η απαιτούμενη πληροφορία για την εξαγωγή, μέσω του συστήματος, της σύνοψης των ελέγχων που συνοδεύει τις αιτήσεις πληρωμής που υποβάλλει η ΣΑ.

Ειδικά για τις επενδύσεις/ μεταρρυθμίσεις του ΣΑΑ, ο Γενικός Ελεγκτής, στο πλαίσιο των αρμοδιοτήτων του ενημερώνει εγκαίρως την ΣΑ για την έναρξη σχετικού ελέγχου για οποιαδήποτε επένδυση/ μεταρρύθμιση του ΣΑΑ, καθώς και για τα πορίσματα του ελέγχου και την πρόοδο συμμόρφωσης σε τυχόν συστάσεις.

Λεπτομερής ανάλυση των προαναφερόμενων παρατίθεται στα ακόλουθα κύρια έγγραφα της εθνικής νομοθεσίας:

- Ο Περί της Καταθέσεως Στοιχείων και Πληροφοριών στο Γενικό Ελεγκτή της Δημοκρατίας και στη Βουλή των Αντιπροσώπων Νόμος του 2002 (Ν. 113(Ι)/2002) Ε.Ε., Παρ.Ι(Ι), Αρ.3621, 12/7/2002
- Ο περί της Καταθέσεως Στοιχείων και Πληροφοριών στο Γενικό Ελεγκτή της Δημοκρατίας (Τροποποιητικός) Νόμος του 2007 (Ν. 32(Ι)/2007) Ε.Ε., Παρ.Ι(Ι), Αρ.4117, 15/3/2007
- Ο περί της Καταθέσεως Στοιχείων και Πληροφοριών στο Γενικό Ελεγκτή της Δημοκρατίας και στη Βουλή των Αντιπροσώπων Νόμος του 2013 (Ν. 137(Ι)/2013) Ε.Ε., Παρ.Ι(Ι), Αρ.4415, 29/11/2013
- Ο περί της Καταθέσεως Στοιχείων και Πληροφοριών στο Γενικό Ελεγκτή της Δημοκρατίας και στη Βουλή των Αντιπροσώπων (Τροποποιητικός) Νόμος του 2014 (Ν. 31(Ι)/2014) Ε.Ε., Παρ.Ι(Ι), Αρ.4434, 14/3/2014
- Ο περί της Καταθέσεως Στοιχείων και Πληροφοριών στο Γενικό Ελεγκτή της Δημοκρατίας και στη Βουλή των Αντιπροσώπων (Τροποποιητικός) Νόμος του 2016 (Ν. 124(Ι)/2016) Ε.Ε., Παρ.Ι(Ι), Αρ.4583, 25/11/2016

- Ο περί της Καταθέσεως Στοιχείων και Πληροφοριών στο Γενικό Ελεγκτή της Δημοκρατίας και στη Βουλή των Αντιπροσώπων (Τροποποιητικός) (Αρ.2) Νόμος του 2016 (Ν. 134(Ι)/2016) Ε.Ε., Παρ.Ι(Ι), Αρ.4586, 23/12/2016

3.3.5 Σύνοψη ειδών επαληθεύσεων και ελέγχων παρεμβάσεων του ΣΑΑ

Τα αναγραφόμενα στις προηγούμενες παραγράφους είδη επαληθεύσεων και ελέγχων που διενεργούνται για τις παρεμβάσεις που χρηματοδοτούνται από το ΣΑΑ, συνοψίζονται στον ακόλουθο πίνακα:

Κατηγορία	Ελέγχων Φορέας / Όργανο	Ελεγχόμενος Φορέας / Όργανο	Χρόνος διενέργειας	Αντικείμενο ελέγχου	Μέθοδος
Επαληθεύσεις Δημοσίων Συμβάσεων	Αρμόδια Αρχή Δημοσίων Συμβάσεων	Φορέας Υλοποίησης	Όποτε ενεργοποιούνται οι διαδικασίες σύναψης δημοσίων συμβάσεων	Συμβατότητα παρεμβάσεων του ΣΑΑ με οριζόντιες πολιτικές δημοσίων συμβάσεων	Μόνο για συμβάσεις άνω των καθορισμένων ορίων
Επαληθεύσεις φυσικού και οικονομικού αντικειμένου Επενδύσεων/ Μεταρρυθμίσεων, ΦΥ ΚΚ	Ελέγχων Λειτουργός (συνολική εποπτεία όλων των εμπλεκόμενων λειτουργιών), Αρμόδιος Λειτουργός/ Συντονιστής Σύμβασης / Υπεύθυνος, Λογιστικό Προσωπικό ΔΧΔ, Γραμματειακό Προσωπικό Λογιστηρίου ΦΥ	Ανάδοχοι / αντισυμβαλλόμενος / τελικοί αποδέκτες ενισχύσεων	Κατά την παραλαβή του Φυσικού και Οικονομικού αντικειμένου της Επένδυσης/ Μεταρρύθμισης & την παραλαβή του παραστατικού μέχρι τη διενέργεια της πληρωμής του	Επαλήθευση του φυσικού και οικονομικού αντικειμένου υπηρεσίας / προμήθειας / αιτήματος καταβολής χορηγίας και έλεγχος της νομιμότητας κάθε πληρωμής	Σύμφωνα με τα οριζόμενα στον Ν. 20(Ι)/2014, στον Νόμο 38(Ι)/2014 και στην ΚΔΠ 138/2016
Επαληθεύσεις Επενδύσεων/ Μεταρρυθμίσεων ΦΥ εκτός Κεντρικής Κυβέρνησης	Εσωτερικές διαδικασίες επαλήθευσης του φυσικού και οικονομικού αντικειμένου, κατ' αναλογία των διαδικασιών που προβλέπονται και εφαρμόζονται από τους ΦΥ της Κεντρικής Κυβέρνησης	Ανεξάρτητος ιδιώτης Ελεγκτής	Φορέας Υλοποίησης	Όπως προβλέπεται στα Διεθνή Πρότυπα Ελέγχου	Ορθολογιστική διαχείριση του διαθέσιμου προϋπολογισμού του Έργου

Κατηγορία	Ελέγχων Φορέας / Όργανο	Ελεγχόμενος Φορέας / Όργανο	Χρόνος διενέργειας	Αντικείμενο ελέγχου	Μέθοδος
	ΓΔ ΕΠΣΑ	Φορέας Υλοποίησης	Πριν την καταβολή πληρωμών προς τους ΦΥ	Άσκηση αρμοδιοτήτων σε σχέση με την υλοποίηση, την παρακολούθηση και τον εσωτερικό έλεγχο επενδύσεων και μεταρρυθμίσεων του ΣΑΑ	<ul style="list-style-type: none"> - Σύμφωνα με τις Εγκυκλίους 1777 & 1778 του 2019 - Σύμφωνα με τον Νόμο 38(Ι)/2014 και τους εν ισχύ σχετικούς Οδηγούς και Εγχειρίδια Διαδικασιών
Επαληθεύσεις επίτευξης στόχων και οροσήμων του ΣΑΑ	Συντονιστική Αρχή (ή Φορέας Παρακολούθησης, εάν έχει οριστεί)	Φορέας Υλοποίησης	Κάθε τρίμηνο, κατά την επικύρωση των ΕΕΠΠ	Επίτευξη στόχων και οροσήμων του ΣΑΑ και ενδιάμεσων σταδίων	<ul style="list-style-type: none"> - Καθολικά, για όλες τις παρεμβάσεις του ΣΑΑ. - Οπωσδήποτε διοικητικά και αν κρίνεται απαραίτητο και επιτόπια.
Εσωτερικός Έλεγχος (internal audit)	Υπηρεσία Εσωτερικού Ελέγχου (Έφορος Εσωτερικού Ελέγχου)	Κρατικές Υπηρεσίες και Όργανα	Βάσει Χρονοπρ/σμού στο Σχέδιο Δράσης της ΥΕΕ	Δευτεροβάθμιος έλεγχος της ορθής διαχείρισης των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ και γενικότερα της εφαρμογής των αρχών χρηστής διοίκησης	Σύμφωνα με τα οριζόμενα στον Ν. 114(Ι)/2003 και σχετικά Εγχειρίδια
	Υπηρεσία Εσωτερικού Ελέγχου (Έφορος Εσωτερικού Ελέγχου)	Συντονιστική Αρχή, ΦΠ	Βάσει Χρονοπρ/σμού στο Σχέδιο Δράσης της ΥΕΕ	System Audits	Βάσει εγχειριδίων
	Υπηρεσία Εσωτερικού Ελέγχου (Έφορος Εσωτερικού Ελέγχου)	Συντονιστική Αρχή	2 φορές κατ' έτος, πριν την κατάρτιση των Αιτήσεων Πληρωμής	Έλεγχος επαληθεύσεων στόχων και οροσήμων	Βάσει δειγματοληψίας
Εξωτερικός Έλεγχος (external audit)	Ελεγκτική Υπηρεσία -	Υπουργοί, δημόσιοι υπάλληλοι,	Οποιαδήποτε χρονική στιγμή	Εφ' όλης της ύλης (οικονομικός,	Σύμφωνα με τα Διεθνή Πρότυπα Ελέγχου (ISAs) που

Κατηγορία	Ελέγχων Φορέας / Όργανο	Ελεγχόμενος Φορέας / Όργανο	Χρόνος διενέργειας	Αντικείμενο ελέγχου	Μέθοδος
	Γενικός Ελεγκτής	Πρόεδροι, μέλη Συμβουλίων και υπάλληλοι Νομικών Προσώπων Δημοσίου Δικαίου, Δήμαρχοι, Κοινοτάρχες, μέλη Δημοτικών και Κοινοτικών Συμβουλίων και δημοτικοί υπάλληλοι, αξιωματούχοι και υπάλληλοι των διάφορων Υπηρεσιών της Δημοκρατίας, άλλων Αρχών ή Συμβουλίων που συστάθηκαν ή θα συσταθούν με Νόμο ή άλλους Οργανισμούς		κανονιστικός, διαχειριστικός, τεχνικός, περιβαλλοντικός έλεγχος)	εκδίδονται από τη Διεθνή Ομοσπονδία Λογιστών (IFAC) και τα Διεθνή Πρότυπα Ανώτατων Ελεγκτικών Ιδρυμάτων (ISSAIs) που εκδίδει ο INTOSAI. Δειγματοληπτικοί έλεγχοι δημοσίων συμβάσεων και Σχεδίων Χορηγιών που οπωσδήποτε περιλαμβάνουν παρεμβάσεις του ΣΑΑ.

3.4 Πρόληψη, Ανίχνευση και Αντιμετώπιση Κινδύνων Απάτης, Διαφθοράς, Σύγκρουσης Συμφερόντων και Διπλής Χρηματοδότησης

3.4.1 Εισαγωγή – ορισμοί

Στην παρούσα ενότητα εξηγείται το εσωτερικό σύστημα της Κυπριακής Δημοκρατίας για την πρόληψη, τον εντοπισμό και την αντιμετώπιση της διαφθοράς, της απάτης και των συγκρούσεων συμφερόντων κατά τη χρήση των κονδυλίων που παρέχονται στο πλαίσιο του ΜΑΑ, καθώς και οι ρυθμίσεις που αποσκοπούν στην αποφυγή της διπλής χρηματοδότησης από τον ΜΑΑ και άλλα προγράμματα της Ένωσης ή εθνικά προγράμματα, με βάση την απαίτηση του Άρθρου 18(4)(r) του Κανονισμού του ΜΑΑ.

Σύμφωνα με το άρθρο 325 παράγραφος 1 της Συνθήκης για τη Λειτουργία της Ευρωπαϊκής Ένωσης, η Ένωση και τα κράτη μέλη οφείλουν να καταπολεμούν την απάτη και κάθε άλλη παράνομη δραστηριότητα εις βάρος των οικονομικών συμφερόντων της Ευρωπαϊκής Ένωσης.

Σύμφωνα με την Στρατηγική της Επιτροπής για την καταπολέμηση της απάτης του 2019, ο όρος **απάτη** χρησιμοποιείται ως γενικός όρος που περιλαμβάνει:

- την απάτη, διαφθορά και υπεξαίρεση εις βάρος των οικονομικών συμφερόντων της Ένωσης,
- άλλα ποινικά αδικήματα που θίγουν τα οικονομικά συμφέροντα της Ένωσης, π.χ. αδικήματα που συνδέονται με την παραβίαση διαδικασιών σύναψης δημόσιων συμβάσεων, όταν επηρεάζουν τον προϋπολογισμό της ΕΕ,
- παρατυπίες όπως ορίζονται στο άρθρο 1 παράγραφος 2 του κανονισμού (ΕΚ, Ευρατόμ) αριθ. 2988/9523, στο μέτρο που είναι εκ προθέσεως και δεν καλύπτονται ήδη από τα προαναφερόμενα ποινικά αδικήματα¹⁵,
- περιπτώσεις σοβαρής παράλειψης επαγγελματικών υποχρεώσεων από το προσωπικό ή μέλη των θεσμικών οργάνων και οργανισμών της Ένωσης.

Ως **διαφθορά** νοείται η κατάχρηση (δημόσιας) θέσης για προσωπικό όφελος. Η συνηθέστερη μορφή διαφθοράς είναι ο χρηματισμός ή αποκόμιση άλλων οφελών ως αντάλλαγμα για ευνοϊκή μεταχείριση.

Σύγκρουση συμφερόντων υπάρχει όταν η αμερόληπτη και αντικειμενική άσκηση των επίσημων καθηκόντων ενός προσώπου υπονομεύεται από οικογενειακούς ή συναισθηματικούς λόγους ή από πολιτικούς ή εθνικούς δεσμούς, από οικονομικό συμφέρον ή οποιαδήποτε σύμπτωση συμφερόντων, π.χ. με αιτούντα ή δικαιούχο χρηματοδότησης από την ΕΕ.

Ως **διπλή χρηματοδότηση**, για τους σκοπούς του παρόντος εγγράφου, νοείται η χρηματοδότηση οποιασδήποτε επένδυσης ή μεταρρύθμισης που περιλαμβάνεται στο ΣΑΑ και χρηματοδοτείται από τον ΜΑΑ, ή οποιουδήποτε μέρους (έργου, σύμβασης, ενίσχυσης, δαπάνης) αυτών, από πόρους της ΕΕ που λαμβάνονται στο πλαίσιο άλλου ή άλλων ευρωπαϊκών προγραμμάτων ή από εθνικούς πόρους.

Ως **απλή παρατυπία** νοείται κάθε παράβαση διάταξης του ενωσιακού δικαίου που προκύπτει από πράξη ή παράλειψη ενός οικονομικού φορέα, με πραγματικό ή ενδεχόμενο αποτέλεσμα να ζημειωθεί ο γενικός προϋπολογισμός της Ένωσης ή προϋπολογισμός διαχειριζόμενος από την Ένωση, είτε με τη μείωση ή ματαίωση εσόδων που προέρχονται από ίδιους πόρους που εισπράττονται απευθείας για λογαριασμό της Ένωσης, είτε με αδικαιολόγητη δαπάνη (άρθρο 1 παράγραφος 2 του κανονισμού (ΕΚ, Ευρατόμ) αριθ. 2988/9523), στο μέτρο που αυτή **δεν** είναι εκ προθέσεως.

Για το σχεδιασμό και την εφαρμογή των διαδικασιών που διασφαλίζουν την εφαρμογή αποτελεσματικών και αναλογικών μέτρων καταπολέμησης της απάτης και διαφθοράς στο πλαίσιο του ΣΑΑ, η Κυπριακή Δημοκρατία ακολουθεί κατ' αναλογία τις κατευθύνσεις που δίνονται στο Έγγραφο Καθοδήγησης της ΕΕ με τίτλο: «Αξιολόγηση κινδύνου απάτης και αποτελεσματικά και αναλογικά μέτρα καταπολέμησης της απάτης» [Guidance Note on Fraud Risk Assessment and

¹⁵ Η πρόθεση αποτελεί βασικό στοιχείο που διαχωρίζει την απάτη από την απλή παρατυπία.

Effective and Proportionate Anti-Fraud Measures (EGESIF 14-0021-00, 16/06/2014)] (στο εξής: Έγγραφο Καθοδήγησης) το οποίο έχει εκδοθεί από την ΕΕ για την καταπολέμηση της απάτης και διαφθοράς στο πλαίσιο των ΕΔΕΤ.

Οι διαδικασίες που εφαρμόζονται κατ' αναλογία με το παραπάνω πλαίσιο για την καταπολέμηση της απάτης και διαφθοράς κατά την υλοποίηση του ΣΑΑ, αφορούν σε όλα τα στάδια του «κύκλου καταπολέμησης της απάτης και διαφθοράς» και συγκεκριμένα:

- στην **πρόληψη** των κινδύνων απάτης, διαφθοράς και σύγκρουσης συμφερόντων, με την εφαρμογή της **αξιολόγησης κινδύνων απάτης** η οποία είναι άμεσα συνδεδεμένη με τη διασφάλιση της ορθής εφαρμογής του συνόλου των διαδικασιών του ΣΠΕ και ιδιαίτερα των διαδικασιών:
 - αξιολόγησης και επιλογής αναδόχων και δικαιούχων ενισχύσεων,
 - εκτέλεσης συμβάσεων,
 - επαλήθευσης φυσικού και οικονομικού αντικειμένου,
 - επαλήθευσης επίτευξης στόχων και οροσήμων,
 - διενέργειας πληρωμών.
- στον **εντοπισμό** υπονοιών απάτης, διαφθοράς και σύγκρουσης συμφερόντων με βάση τα αποτελέσματα της εφαρμογής των διαδικασιών του ΣΠΕ, και την ανατροφοδότηση του συστήματος αξιολόγησης κινδύνων απάτης για την ελαχιστοποίηση της πιθανότητας επανεμφάνισής τους
- στα μέτρα που εφαρμόζονται για τη **διερεύνηση** εντοπισμένων υπονοιών απάτης, διαφθοράς και σύγκρουσης συμφερόντων και τη **διόρθωση και δίωξη** διαπιστωμένων περιπτώσεων
- στον **έλεγχο** της εφαρμογής των διαδικασιών καταπολέμησης της απάτης, διαφθοράς και σύγκρουσης συμφερόντων από τον Εθνικό Συντονιστικό Φορέα για την καταπολέμηση της απάτης κατά των συμφερόντων της Ευρωπαϊκής Ένωσης.
- στην **ενημέρωση** της ΕΕ σχετικά με τις περιπτώσεις απάτης, διαφθοράς και σύγκρουσης συμφερόντων που εντοπίζονται, στο πλαίσιο της σύνοψης λογιστικών ελέγχων που υποβάλλεται με τις Αιτήσεις Πληρωμής (βλ. παρ. 3.5), καθώς και της OLAF, τη στιγμή που εντοπίζεται η υπόνοια.

3.4.2 Πρόληψη, Ανίχνευση και Αντιμετώπιση Κινδύνων Απάτης, Διαφθοράς και Σύγκρουσης Συμφερόντων

3.4.2.1 Γενικές πρόνοιες

Στη διασφάλιση της εφαρμογής της αρχής της χρηστής δημοσιονομικής διαχείρισης και κατ' επέκταση και στην πρόληψη της απάτης, διαφθοράς και σύγκρουσης συμφερόντων συμβάλλει κατ'

αρχήν ο σχεδιασμός και η άρτια εφαρμογή του συνόλου των διαδικασιών του Συστήματος Παρακολούθησης και Ελέγχου και ιδιαίτερα:

- Η αναλυτική και σαφής περιγραφή των αρμοδιοτήτων κάθε φορέα που εμπλέκεται σε θέματα παρακολούθησης και ελέγχου και η κατανομή αρμοδιοτήτων στο εσωτερικό του κάθε φορέα, με τη διασφάλιση της τήρησης της αρχής του διαχωρισμού αρμοδιοτήτων όπου απαιτείται
- Η ύπαρξη και εφαρμογή διαδικασιών για τη διασφάλιση της νομιμότητας και κανονικότητας των δαπανών και για τη διασφάλιση επαρκούς διαδρομής λογιστικού ελέγχου
- Η λειτουργία και χρήση του Πληροφοριακού Συστήματος Παρακολούθησης για την ηλεκτρονική αποθήκευση και ανταλλαγή δεδομένων, καθώς και για την υποστήριξη της παρακολούθησης και του ελέγχου της υλοποίησης του ΣΑΑ
- Η ύπαρξη διαδικασιών για την πρόληψη, ανίχνευση και διόρθωση παρατυπιών, μέσω των οποίων εντοπίζονται και περιπτώσεις με υπόνοια απάτης
- Η ενημέρωση κάθε εμπλεκόμενου φορέα για την περιγραφή των διαδικασιών του Συστήματος Παρακολούθησης και Ελέγχου και για κάθε ενδεχόμενη τροποποίησή τους με την ανάρτησή του στην ιστοσελίδα της ΣΑ και μέσω σχετικών ενημερωτικών εγγράφων.
- Η ύπαρξη εθνικών κωδίκων και οδηγιών δεοντολογίας για τη λειτουργία των δημόσιων υπαλλήλων και υπηρεσιών της χώρας (Οδηγός Συμπεριφοράς και Δεοντολογίας Δημοσίων Υπαλλήλων, Εθνικός Κώδικας Δεοντολογίας για τη σύναψη των Δημοσίων Συμβάσεων, Κώδικας Δεοντολογίας Υπηρεσίας ΦΠΑ του Υπουργείου Οικονομικών, Κώδικας Δεοντολογίας του Συνδέσμου Εγκεκριμένων Λογιστών Κύπρου).
- Η διενέργεια εκπαιδεύσεων και δράσεων ευαισθητοποίησης του προσωπικού των εμπλεκόμενων σε διεργασίες παρακολούθησης και ελέγχου, φορέων και οργανισμών, τόσο σε θεωρητικά όσο και σε πρακτικά θέματα (διαδικασίες πρόληψης, εντοπισμού, διόρθωσης και δίωξης της απάτης και της διαφθοράς, προειδοποιητικές ενδείξεις και δείκτες απάτης και διαφθοράς, κ.ά.), προκειμένου να εδραιωθεί η νοοτροπία αποθάρρυνσης της απάτης και της διαφθοράς και να παρασχεθεί κάθε δυνατή τεχνογνωσία για τον εντοπισμό και την αντιμετώπιση των κινδύνων εμφάνισής τους.
- Η δήλωση πολιτικής για την καταπολέμηση της απάτης στη διαχείριση των πόρων του ΜΑΑ.

3.4.2.2 Αξιολόγηση κινδύνων απάτης

3.4.2.2.1 Διαδικασία αξιολόγησης κινδύνων απάτης

Πέραν της γενικής παρακολούθησης της άρτιας εφαρμογής των διαδικασιών του ΣΠΕ από τους εμπλεκόμενους φορείς, η ΣΑ, στο πλαίσιο των προληπτικών ενεργειών για την αντιμετώπιση της απάτης, εφαρμόζει τη **διαδικασία αξιολόγησης κινδύνων απάτης**, μέσω της οποίας γίνεται η αξιολόγηση του αντίκτυπου και της πιθανότητας εμφάνισης δυνητικών κινδύνων απάτης (συμπεριλαμβανομένων και κινδύνων διαφθοράς, σύγκρουσης συμφερόντων και κάθε άλλης παράνομης δραστηριότητας) που θα μπορούσαν να πλήξουν τα οικονομικά συμφέροντα της ΕΕ.

Η διαδικασία αξιολόγησης κινδύνων απάτης διενεργείται σύμφωνα με το Έγγραφο Καθοδήγησης της ΕΕ και με τη χρήση του Εργαλείου Αξιολόγησης Κινδύνων Απάτης (Παράρτημα 1 του εν λόγω Εγγράφου¹⁶).

Η αξιολόγηση των κινδύνων απάτης στοχεύει:

- α) στον προσδιορισμό των κινδύνων για τους οποίους κρίνεται ότι δεν έχουν γίνει ακόμη αρκετές ενέργειες για να περιοριστεί η πιθανότητα εκδήλωσης ή η επίπτωσή τους σε ένα αποδεκτό / ανεκτό επίπεδο και
- β) στην αντιμετώπιση των παραπάνω κινδύνων, με την επιλογή / πρόταση αποτελεσματικών και αναλογικών μέτρων κατά της απάτης.

Η αξιολόγηση των κινδύνων απάτης διενεργείται:

- αρχικά: πριν την έναρξη της υλοποίησης του ΣΑΑ, με βάση την εμπειρία και σχετικά στοιχεία από τη διαχείριση των ΕΠ των ΕΔΕΤ και έχοντας υπόψη τη φύση των δράσεων που προβλέπεται να χρηματοδοτηθούν από τον ΜΑΑ (διαδικασία υπό εξέλιξη που αναμένεται να ολοκληρωθεί μέχρι το τέλος του 2021 και οπωσδήποτε πριν από την υποβολή της πρώτης Αίτησης Πληρωμής από τη ΣΑ για ανάκτηση πόρων από το πρόγραμμα),
- τακτικά: σε ετήσια βάση, σε όλη τη διάρκεια υλοποίησης του ΣΑΑ. Ωστόσο, όταν το επίπεδο των εντοπισμένων κινδύνων είναι πολύ χαμηλό και κατά τη διάρκεια ενός έτους δεν παρατηρούνται περιπτώσεις απάτης, η ΣΑ μπορεί να αποφασίσει τη διενέργεια της αξιολόγησης κάθε δύο (2) χρόνια.
- εκτάκτως: σε περίπτωση σημαντικών τροποποιήσεων στο ΣΠΕ ή εντοπισμού σημαντικών περιπτώσεων απάτης.

Το Εργαλείο Αξιολόγησης Κινδύνων Απάτης που προτείνεται από την ΕΕ, περιλαμβάνει έναν κατάλογο ήδη αναγνωρισμένων συνήθων κινδύνων απάτης. Για κάθε έναν από τους αναγνωρισμένους κινδύνους που εφαρμόζονται και στην περίπτωση του ΣΑΑ, στο Εργαλείο Αξιολόγησης καταγράφονται οι υφιστάμενοι έλεγχοι για το μετριασμό του, δηλαδή σημεία ελέγχου της συμμόρφωσης των εφαρμοζόμενων διεργασιών και των εμπλεκόμενων σε αυτές οργανισμών / φορέων ως προς τους όρους που πρέπει να πληρούνται για το μετριασμό του συγκεκριμένου κινδύνου.

Κατά τη διενέργεια της πρώτης αξιολόγησης κινδύνων απάτης η ΣΑ προσαρμόζει ή/και εμπλουτίζει τον παραπάνω κατάλογο με κινδύνους που αναγνωρίζει η ίδια, καθώς και με τα αντίστοιχα σημεία ελέγχου κάθε αναγνωρισμένου κινδύνου, τα οποία γνωρίζει ότι εφαρμόζονται.

Πηγές άντλησης δεδομένων για τις επόμενες αξιολογήσεις αποτελούν οι συνοπτικές εκθέσεις λογιστικών ελέγχων της ΣΑ και η παρακολούθηση των ελεγκτικών ενεργειών όλων των εθνικών ελεγκτικών οργάνων και η αξιολόγηση των ευρημάτων τους.

¹⁶

https://ec.europa.eu/regional_policy/sources/docgener/informat/2014/guidance_fraud_risk_assessment_annex_tool.xlsx

Τα συμπεράσματα που ενδέχεται να προκύψουν ως αποτέλεσμα της διαδικασίας αξιολόγησης, μπορούν να είναι της μορφής:

- Προσθήκης ή αφαίρεσης κινδύνων στον κατάλογο κινδύνων
- Προσθήκης ή αφαίρεσης ή τροποποίησης σημείων ελέγχου για τον μετριασμό των κινδύνων του καταλόγου.

Ως αποτέλεσμα της εφαρμογής μίας τακτικής ή έκτακτης αξιολόγησης κινδύνων απάτης, ενδέχεται να προκύψει επίσης η αναγκαιότητα αναθεώρησης μίας ή περισσότερων διαδικασιών του Συστήματος Παρακολούθησης και Ελέγχου, προκειμένου η εφαρμογή κάποιου μέτρου αντιμετώπισης κινδύνου απάτης να αποκτήσει συστηματικό και καθολικό χαρακτήρα.

Τα αποτελέσματα κάθε αξιολόγησης κινδύνων απάτης εγκρίνονται από τον Προϊστάμενο της Συντονιστικής Αρχής και αποστέλλονται στον Εθνικό Συντονιστικό Φορέα για την καταπολέμηση της απάτης κατά των συμφερόντων της Ένωσης (AFCOS), στην Υπηρεσία Εσωτερικού Ελέγχου και στην Ελεγκτική Υπηρεσία προς ενημέρωσή τους.

3.4.2.2 Το εργαλείο ARACHNE

Στο πλαίσιο των προσπαθειών για την καταπολέμηση της απάτης, η Επιτροπή προσφέρει στα κράτη μέλη ένα ειδικό εργαλείο άντλησης δεδομένων που ονομάζεται ARACHNE¹⁷, για την υποστήριξη του εντοπισμού των έργων που ενδέχεται να είναι ευάλωτα σε κινδύνους απάτης, σύγκρουσης συμφερόντων και παρατυπιών.

Η χρήση του εργαλείου από τα κ-μ είναι προαιρετική και έχει στόχο να συμπληρώσει τη διαδικασία αξιολόγησης κινδύνων απάτης προωθώντας τη χρήση μιας προσέγγισης βάσει εντοπισμού και βαθμολόγησης κινδύνων, η οποία μπορεί να αυξήσει την αποτελεσματικότητα της επιλογής των έργων, των επαληθεύσεων και του ελέγχου, και να ενισχύσει περαιτέρω την αναγνώριση, την πρόληψη και τον εντοπισμό της απάτης, ιδιαίτερα σε περιπτώσεις διαφθοράς.

Μετά την ολοκλήρωση της διενέργειας της 1^{ης} τακτικής αξιολόγησης των κινδύνων απάτης, η ΣΑ θα ξεκινήσει τις ενέργειες για την αξιοποίηση του εν λόγω εργαλείου της ΕΕ ως συμπληρωματικού υποστηρικτικού εργαλείου των δικών της συστημάτων.

3.4.2.3 Εντοπισμός υπονοιών απάτης, διαφθοράς και σύγκρουσης συμφερόντων

Ο εντοπισμός υπονοιών απάτης, διαφθοράς και σύγκρουσης συμφερόντων, επιτυγχάνεται μέσω της εφαρμογής των διαδικασιών παρακολούθησης και ελέγχου που διενεργούνται στο πλαίσιο του ΣΠΕ και ειδικότερα:

- της διαδικασίας πιστοποίησης της τήρησης των οριζόντιων πολιτικών για τις κρατικές ενισχύσεις και τις δημόσιες συμβάσεις
- των διαδικασιών επαλήθευσης φυσικού και οικονομικού αντικειμένου επενδύσεων και μεταρρυθμίσεων,

¹⁷ Νεότερη έκδοση του αντίστοιχου εργαλείου που παρέχεται στο πλαίσιο της διαχείρισης των ΕΔΕΤ.

- της διαδικασίας επαλήθευσης της επίτευξης των στόχων και οροσώμων του ΣΑΑ,
- της διαδικασίας παρακολούθησης επενδύσεων και μεταρρυθμίσεων.
- των διαδικασιών εσωτερικού και εξωτερικού ελέγχου (internal and external audit),
- της διαδικασίας εξέτασης καταγγελιών.

Ανάλογα με τις υπόνοιες απάτης, διαφθοράς ή σύγκρουσης συμφερόντων που εντοπίζονται κατά τη διενέργεια των ανωτέρω διαδικασιών, κρίνεται και η αποτελεσματικότητα του συστήματος αξιολόγησης των κινδύνων απάτης που αναπτύχθηκε στην προηγούμενη παράγραφο. Ειδικότερα στην περίπτωση που εντοπίζεται υπόνοια απάτης, διαφθοράς ή σύγκρουσης συμφερόντων σε διαδικασία στην οποία ο κίνδυνος εμφάνισης είχε εκτιμηθεί ως χαμηλός, τότε απαιτείται άμεσος ανασχεδιασμός του σχετικού σημείου της διαδικασίας με την προσθήκη νέων μέτρων / σημείων ελέγχου για την προληπτική αντιμετώπιση των κινδύνων και την ελαχιστοποίηση της πιθανότητας επανεμφάνισής τους. Στην περίπτωση αυτή δύναται να απαιτηθεί αναθεώρηση του ΣΠΕ και των εσωτερικών διαδικασιών και συστημάτων ελέγχου που έχουν εκτεθεί.

Ενδείξεις για την ύπαρξη παράνομης δραστηριότητας που βοηθούν στον εντοπισμό υπονοιών απάτης, διαφθοράς ή σύγκρουσης συμφερόντων αποτελούν οι δείκτες απάτης («κόκκινες σημαίες»), οι οποίοι σηματοδοτούν την αναγκαιότητα για άμεση αντίδραση προκειμένου να διαπιστωθεί αν είναι απαραίτητη η ανάληψη περαιτέρω δράσης.

Παραδείγματα δεικτών απάτης αποτελούν οι ακόλουθες ενδείξεις:

- ανεξήγητη ή ξαφνική βελτίωση της οικονομικής κατάστασης του αρμόδιου για τις συμβάσεις υπαλλήλου (δείκτης περίπτωσης διαφθοράς)
- ανεξήγητη ή ασυνήθης εύνοια για έναν συγκεκριμένο αντισυμβαλλόμενο ή ανάδοχο (δείκτης περίπτωσης σύγκρουσης συμφερόντων).

Για τον καθορισμό των δεικτών απάτης, η ΣΑ και οι λοιποί εμπλεκόμενοι φορείς λαμβάνουν υπόψη τις σχετικές οδηγίες της ΕΕ που δίνονται στο ενημερωτικό σημείωμα σχετικά με τους δείκτες απάτης για τα ΕΔΕΤ¹⁸.

3.4.2.4 Διερεύνηση υπονοιών απάτης και επακόλουθες ενέργειες

Μόλις εντοπισθεί οποιαδήποτε παρατυπία, από στέλεχος οποιουδήποτε φορέα εμπλέκεται στην υλοποίηση, παρακολούθηση ή έλεγχο, του ΣΠΕ, ο φορέας που εντόπισε την παρατυπία ενημερώνει σχετικά τη ΣΑ και

(α) εφόσον κριθεί ότι δεν υπάρχει υπόνοια απάτης και ότι πρόκειται για απλή παρατυπία, η ΣΑ ενημερώνει σχετικά την ΥΕΕ και την ΕΥ (σε περίπτωση που η παρατυπία δεν εντοπίζεται από τους συγκεκριμένους φορείς) και παρακολουθεί ή συντονίζει τη δρομολόγηση της περαιτέρω διαχείρισης της παρατυπίας και την υλοποίηση των απαιτούμενων διορθωτικών ενεργειών από τους εμπλεκόμενους φορείς, συμπεριλαμβανομένης και της ανάκτησης τυχόν αχρεωστήτως καταβληθέντων ποσών. Εάν τα προς ανάκτηση ποσά δεν καταβληθούν από τον υπόχρεο οικονομικό

¹⁸ COCOF 09/0003/00 της 18.02.2009

φορέα, ο ΦΥ ενημερώνει τον Γενικό Εισαγγελέα, ο οποίος προβαίνει στις απαραίτητες ενέργειες για τον περαιτέρω χειρισμό της υπόθεσης..

(β) εφόσον εντοπίζεται παρατυπία η οποία ενέχει υπόνοια απάτης, τότε ο κατά περίπτωση φορέας που εντοπίζει την υπόνοια απάτης προωθεί την υπόθεση στην Αστυνομία, με κοινοποίηση στον AFCOS και στη ΣΑ και η αστυνομία προβαίνει σε περαιτέρω διερεύνηση. Μετά τη διερεύνηση της Αστυνομίας:

(βα) εφόσον δεν διαπιστωθεί η ύπαρξη απάτης, η Αστυνομία ενημερώνει σχετικά τον φορέα που παράπεμψε την υπόθεση, ο οποίος ενημερώνει τη ΣΑ και τον AFCOS. Σε τέτοια περίπτωση η παρατυπία τυγχάνει χειρισμού όπως και στην περίπτωση (α) ανωτέρω.

(ββ) εφόσον διαπιστωθεί μετά την ολοκλήρωση της ποινικής έρευνας η ύπαρξη απάτης, η Αστυνομία προωθεί τα αποτελέσματα της έρευνάς της στον Γενικό Εισαγγελέα ο οποίος προβαίνει στις απαραίτητες ενέργειες για τον περαιτέρω χειρισμό της υπόθεσης και ο οποίος ελέγχει και συντονίζει την ποινική διαδικασία. Ως μέλος του AFCOS, η Αστυνομία τηρεί τον φορέα αυτό ενήμερο για την εξέλιξη της υπόθεσης και σε περίπτωση που καταχωρηθεί ποινική υπόθεση στο δικαστήριο, το AFCOS θα λαμβάνει ενημέρωση από το γραφείο του Γενικού Εισαγγελέα. Ο AFCOS θα τηρεί ενήμερη τη ΣΑ για την εξέλιξη των υποθέσεων αυτών.

Ο AFCOS παρακολουθεί την έκβαση κάθε υπόθεσης και σε περιπτώσεις όπου εντοπίζεται υπόνοια απάτης, διαφθοράς ή σύγκρουσης συμφερόντων, ενημερώνει σχετικά την OLAF, η οποία δύναται να προχωρήσει και σε δική της διερεύνηση της υπόθεσης (όπως αναφέρεται στην παράγραφο 2.9.1 πιο πάνω).

Η ενημέρωση των αρμόδιων αρχών και φορέων (Γενικού Εισαγγελέα, Αστυνομίας, ΣΑ, AFCOS, ΥΕΕ, ΕΥ και φορέα που εντοπίζει την υπόθεση) κατά την εκτέλεση των βημάτων της ανωτέρω διαδικασίας, γίνονται εκτός ΠΣΠ. Ωστόσο, οι ελεγκτικές ενέργειες που πραγματοποιούνται από οποιοδήποτε φορέα που εμπλέκεται στις πιο πάνω περιγραφόμενες διαδικασίες, καταχωρίζονται στο ΠΣΠ, μαζί με τα αποτελέσματά τους, με ευθύνη της ΣΑ. Επίσης, σε κάθε περίπτωση, ο ελεγχόμενος φορέας στον οποίο διαπιστώθηκε η παρατυπία, είναι υποχρεωμένος να ενημερώνει τη ΣΑ, μέσω των τριμηνιαίων Εντύπων Ενημέρωσης Προόδου, για την πρόοδο της πραγματοποίησης των απαιτούμενων εκ μέρους του ενεργειών μέχρι την επίλυση της υπόθεσης.

Οι ενέργειες που δύναται να επακολουθήσουν κατά περίπτωση, ανάλογα με την έκβαση της διερεύνησης της εντοπισθείσας υπόθεσης, είναι:

- Ανάκτηση αχρεωστήτως καταβληθέντων ποσών πλέον τόκου –βάσει του επιτοκίου που θα καθορίζεται σύμφωνα με τον την εθνική διαδικασία για είσπραξη οφειλών προς Κράτος – από Φορείς Υλοποίησης (διαδικασία ίδια με την ανάκτηση πόρων για έργα που υλοποιούνται στο πλαίσιο του εθνικού προϋπολογισμού).
- Ανάκτηση χρηματοδότησης εκ μέρους της ΕΕ, ειδικά σε περιπτώσεις διαπιστωμένης απάτης, διαφθοράς ή σύγκρουσης συμφερόντων, είτε αυτές έχουν εντοπιστεί από τον κρατικό μηχανισμό, στο πλαίσιο τακτικών ελέγχων ή μετά από καταγγελία, είτε μετά από ελέγχους που διενεργεί η ίδια η ΕΕ ή άλλα ευρωπαϊκά όργανα. Στις περιπτώσεις αυτές, η ΕΕ έχει το δικαίωμα να μειώσει αναλογικά τη στήριξη από τον ΜΑΑ, είτε μειώνοντας επερχόμενες πληρωμές είτε να ανακτήσει πληρωμές που έχουν ήδη καταβληθεί στο παρελθόν. Σε κάθε περίπτωση,

εφαρμόζεται η αρχή της αναλογικότητας και λαμβάνεται υπόψη η σοβαρότητα της παρατυπίας, η ύπαρξη πρόθεσης και ο βαθμός στον οποίο αυτή επηρεάζει τα οικονομικά συμφέροντα της Ένωσης ή αποτελεί παράβαση υποχρέωσης. Το κράτος μέλος έχει την ευκαιρία να υποβάλει τις παρατηρήσεις του πριν από τη διενέργεια της διόρθωσης.

- Ανάκληση Απόφασης Ορισμού ΦΠ ή ΦΥ, στην περίπτωση που διαπιστώνεται διάπραξη απάτης, διαφθοράς ή σύγκρουσης συμφερόντων από πλευράς φορέα
- Αναθεώρηση του ΣΠΕ και των εσωτερικών διαδικασιών και συστημάτων ελέγχου που έχουν εκτεθεί
- Τροποποίηση όρων και προϋποθέσεων των σχεδίων χρηματοδοτήσεων με σκοπό την αποφυγή παρόμοιων κρουσμάτων, εάν η εντοπισμένη υπόθεση ήταν αποτέλεσμα αδυναμίας στους όρους του σχεδίου
- Άσκηση αστικής ή ποινικής δίωξης και επιβολή κυρώσεων επιπλέον των τυχόν ανακτηθέντων ποσών¹⁹.
- Αποκλεισμός τελικού αποδέκτη ενίσχυσης που έχει διαπράξει αδίκημα απάτης, διαφθοράς ή σύγκρουσης συμφερόντων και έχει τεκμηριωθεί και αποδειχθεί ως τέτοια πράξη, από μελλοντικά έργα χρηματοδότησης, εφόσον υπάρχει σχετική πρόβλεψη στο Σχέδιο Χορηγιών.

Η ΣΑ, εάν κρίνει ότι απαιτείται, προωθεί σχετικές συστάσεις προς αποφυγή εμφάνισης παρόμοιων περιστατικών στο μέλλον, ενώ δύναται και να δημοσιοποιήσει την υπόθεση ως αποτρεπτικό παράγοντα για τους εν δυνάμει μελλοντικούς δράστες.

3.4.2.5 Αποφυγή Σύγκρουσης Συμφερόντων

Στο πλαίσιο του ΣΠΕ του ΣΑΑ, η αποφυγή συγκρούσεων συμφερόντων διασφαλίζεται μέσω των ακόλουθων μέτρων:

- Οι αξιολογητές προσφορών/προτάσεων για την επιλογή αναδόχων ή τελικών αποδεκτών ενισχύσεων, δηλώνουν υπεύθυνα την απουσία σύγκρουσης συμφερόντων με τη χρηματοδότηση του υπό αξιολόγηση έργου.
- Στο ΠΣΠ, ή στο Μητρώο Πραγματικών Δικαιούχων του Εφόρου Εταιρειών, ή, μέχρι την έναρξη της παραγωγικής λειτουργίας των συστημάτων αυτών, σε κεντρικό Κατάλογο που τηρεί η ΣΑ με τα στοιχεία που της αποστέλλουν οι ΦΥ, τηρούνται όλα τα στοιχεία των τελικών αποδεκτών χρηματοδότησης (final recipients), των αναδόχων και υπεργολάβων Έργων ΔΣ και των πραγματικών δικαιούχων (UBOs) των αναδόχων και των τελικών αποδεκτών ενισχύσεων, σύμφωνα με το Άρθρο 22(2)(d) του Κανονισμού του ΜΑΑ.

Οι διαδικασίες για την αντιμετώπιση περιπτώσεων σύγκρουσης συμφερόντων που ενοπίζονται στο πλαίσιο της άσκησης κάθε είδους επαλήθευσης ή ελεγκτικής ενέργειας στο πλαίσιο του ΣΠΕ, περιγράφονται στις προηγούμενες παραγράφους του παρόντος κεφαλαίου.

¹⁹ Ο περί της Καταπολέμησης, μέσω του Ποινικού Δικαίου, της Απάτης εις Βάρος των Οικονομικών Συμφερόντων της Ευρωπαϊκής Ένωσης Νόμος του 2020 Ν. 69(Ι)/2020.

3.4.3 Αποφυγή Διπλής Χρηματοδότησης

Προκειμένου να διασφαλισθεί η αποφυγή διπλής χρηματοδότησης των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ, όπως αναφέρεται αναλυτικότερα σε προηγούμενες ενότητες του ΣΠΕ, συνοψίζεται ότι έχουν προβλεφθεί τα ακόλουθα:

- Στο πλαίσιο αξιολόγησης των προτάσεων που έχουν περιληφθεί στο ΣΑΑ έχει ήδη διασφαλιστεί ότι οι προτάσεις δεν υποβλήθηκαν προς χρηματοδότηση σε άλλα συγχρηματοδοτούμενα ή εθνικά προγράμματα, μέσω της συνεργασίας, κατά τη φάση αυτή, της Διεύθυνσης Στρατηγικής Ανάπτυξης και Ανταγωνιστικότητας της ΓΔ ΕΠΣΑ (ΣΑ) με τις υπόλοιπες Διευθύνσεις της ΓΔ ΕΠΣΑ που είναι αρμόδιες για τα προγράμματα Πολιτικής Συνοχής (Διεύθυνση Πολυετούς Δημοσιονομικού Πλαισίου και Πολιτικής Συνοχής (Διαχειριστική Αρχή) και Διεύθυνση Ευρωπαϊκών Προγραμμάτων (Εθνικό Σημείο Επαφής προγραμμάτων εδαφικής συνεργασίας)), καθώς και με το Υπουργείο Οικονομικών σχετικά με τα προγράμματα που χρηματοδοτούνται από καθαρά εθνικούς πόρους. Οι Διευθύνσεις της ΓΔ ΕΠΣΑ και το Υπουργείο Οικονομικών, θα διασφαλίζουν και στο μέλλον την αποφυγή διπλής χρηματοδότησης των επενδύσεων και μεταρρυθμίσεων που έχουν περιληφθεί στο ΣΑΑ από άλλα μελλοντικά ευρωπαϊκά ή εθνικά προγράμματα.
- Η συμμετοχή της ΔΕΠ του ΓΛτΔ στο Σύστημα Διακυβέρνησης της υλοποίησης του ΣΑΑ με τον ρόλο του Συντονιστή Κοστολόγησης, αποτέλεσε μια πρόσθετη δικλίδα ασφαλείας για την αποφυγή διπλής χρηματοδότησης κατά το στάδιο του σχεδιασμού και της ετοιμασίας του ΣΑΑ.
- Οι ΦΥ που εφαρμόζουν σχέδια χορηγιών, διασφαλίζουν την αποφυγή διπλής χρηματοδότησης δαπανών τελικών αποδεκτών ενισχύσεων καθ' όλη τη διάρκεια εφαρμογής των ΣΧ, είτε μέσω αυτοματοποιημένων ελέγχων των πληροφοριακών συστημάτων που διαθέτουν οι ίδιοι (που δεν επιτρέπουν τη διπλή εισαγωγή στο σύστημα του ίδιου παραστατικού), είτε μέσω σφράγισης των πρωτότυπων παραστατικών στο πλαίσιο διοικητικών ή επιτόπιων επαληθεύσεων που διενεργούν με βάση τις πρόνοιες του ΣΧ.
- Η ΣΑ, και συγκεκριμένα η Μονάδα Συντονισμού 2, που τηρεί τον κεντρικό κατάλογο των αναδόχων, τελικών αποδεκτών ενισχύσεων και πραγματικών δικαιούχων τους και στα πλαίσια του ρόλου της ως εθνικού συντονιστή επαληθεύσεων και ελέγχων, διασφαλίζει την αποφυγή διπλής χρηματοδότησής τους, ελέγχοντας, για κάθε νέα εγγραφή που αποστέλλουν οι ΦΥ, τυχόν άλλες συμβάσεις στις οποίες συμμετέχει ο ίδιος ανάδοχος ή υπεργολάβος ή τελικός δικαιούχος του, ή τυχόν άλλες ενισχύσεις που λαμβάνει ο ίδιος αιτητής ενίσχυσης ή τελικός δικαιούχος του. Για τον σκοπό αυτό συνεργάζεται και με την Διαχειριστική Αρχή για τα ταμεία της Πολιτικής Συνοχής (Διεύθυνση Πολυετούς Δημοσιονομικού Πλαισίου και Πολιτικής Συνοχής, της ΓΔ ΕΠΣΑ) η οποία επίσης τηρεί κατάλογο αναδόχων, τελικών αποδεκτών ενισχύσεων και πραγματικών δικαιούχων των Επιχειρησιακών Προγραμμάτων που συγχρηματοδοτούνται από τα ΕΔΕΤ, καθώς και με το Υπουργείο Οικονομικών για τα εθνικά προγράμματα, προκειμένου να διασφαλιστεί η αποφυγή διπλής χρηματοδότησης μεταξύ προγραμμάτων.
- Ειδικά όσον αφορά στα σχέδια χορηγιών, οι φορείς υλοποίησης αποστέλλουν στη ΣΑ σε μηνιαία βάση κατάλογο των υπό εξέταση αιτήσεων συμμετοχής στα σχέδια χορηγιών ευθύνης

τους, με στόχο τη διασφάλιση έγκαιρης ανταλλαγής πληροφοριών μεταξύ των διαφόρων φορέων πριν την έγκριση των προτάσεων.

- Επιπρόσθετα, για δαπάνες έργων δημοσίων συμβάσεων, το υπό ανάπτυξη ERP του ΓΛΤΔ, το οποίο θα μπει σε παραγωγική λειτουργία στις αρχές του 2022, θα παρέχει αυτοματοποιημένους ελέγχους που δεν θα επιτρέπουν τη διπλή χρήση παραστατικών αναδόχων που φέρουν μοναδική αρίθμηση/κωδικοποίηση, στο πλαίσιο του ίδιου ή άλλου έργου.

3.4.4 Διαδρομή ελέγχου

Για τη διασφάλιση της τήρησης επαρκούς διαδρομής ελέγχου αναφορικά με το σύνολο των δεδομένων που αφορούν στην υλοποίηση των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ, όπως αναφέρεται αναλυτικότερα σε άλλες ενότητες του ΣΠΕ, συνοψίζεται ότι έχουν προβλεφθεί τα ακόλουθα:

A. Στοιχεία που τηρούνται στο ΠΣΠ:

- Στο ΠΣΠ, μέσω της εφαρμογής των διαδικασιών του ΣΠΕ, τηρούνται:
 - Στοιχεία του συνολικού προγράμματος με τους στόχους, τα ορόσημα και τον προγραμματισμό τους για κάθε επένδυση και μεταρρύθμιση, βάσει του εγκεκριμένου ΣΑΑ και της Επιχειρησιακής Ρύθμισης.
 - Δέσμευση Προγραμματισμού, με στοιχεία αναλυτικού προγραμματισμού των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ και επισυναπτόμενα έγγραφα (βλ. παρ. 3.1.4)
 - Στοιχεία αναδόχων, υπεργολάβων, τελικών αποδεκτών ενισχύσεων και πραγματικών δικαιούχων τους, ανά σύμβαση / συμφωνία ενίσχυσης, για χρονική περίοδο μέχρι 5 έτη μετά την ολοκλήρωση του συνόλου των πληρωμών της Κυπριακής Δημοκρατίας από τον ΜΑΑ.
 - Στοιχεία παρακολούθησης προόδου υλοποίησης επενδύσεων και μεταρρυθμίσεων, σε τριμηνιαία βάση (πρόοδος επίτευξης στόχων και οροσήμων και ενδιάμεσων σταδίων και στοιχεία τεκμηρίωσης της προόδου, εντοπισμός και διαχείριση κινδύνων και θεμάτων προς επίλυση)
 - Αποτελέσματα ελεγκτικών ενεργειών εσωτερικού και εξωτερικού ανεξάρτητου ελέγχου, που διενεργούνται από τις ΥΕΕ και ΕΥ αντίστοιχα
 - Αποτελέσματα ενεργειών που διενεργούνται για τη διερεύνηση περιπτώσεων παρατυπιών με υπόνοια απάτης, διαφθοράς ή σύγκρουσης συμφερόντων
 - Αιτήσεις Πληρωμής που έχουν διενεργηθεί και αντίστοιχες δηλώσεις διαχείρισης και συνόψεις λογιστικών ελέγχων που έχουν παραχθεί.

B. Στοιχεία που τηρούνται σε συστήματα αρχειοθέτησης εγγράφων των εμπλεκόμενων φορέων:

- Οι ΦΥ τηρούν Φάκελο Παρέμβασης όπου καταχωρείται η Δέσμευση Προγραμματισμού και όλα τα συνημμένα της πρωτότυπα έγγραφα, καθώς και οποιοδήποτε άλλο έγγραφο αφορά σε προκαταρκτικές ενέργειες που έχουν υλοποιηθεί μέχρι την έγκριση της Δέσμευσης και

αφορούν στη συγκεκριμένη παρέμβαση. Οι προκαταρκτικές ενέργειες περιλαμβάνουν τυχόν Μελέτες Περιβαλλοντικών Επιπτώσεων (Environmental Impact Assessments), ή άλλες μελέτες ή άδειες που ενδέχεται να απαιτούνται κατά περίπτωση (π.χ. πολεοδομικές άδειες) για τη διασφάλιση της ωριμότητας μιας υλοποιούμενης επένδυσης ή μεταρρύθμισης και θα πρέπει να εκδίδονται πριν την έναρξη της υλοποίησής τους. Στον Φάκελο Παρέμβασης προστίθεται επίσης οποιαδήποτε πληροφορία σχετική με την πρόοδο υλοποίησης της παρέμβασης (βλ. παρ. 3.1.4).

- Ειδικά οι ΦΥ Σχεδίων Χορηγιών, τηρούν σε δικά τους συστήματα (είτε πληροφοριακά συστήματα, εφόσον διαθέτουν, είτε φακέλους για την αποθήκευση εγγράφων σε ηλεκτρονική μορφή) όλα τα στοιχεία που αφορούν στη διαχείριση έργων σχεδίων χορηγιών (προσκλήσεις, αιτήματα υπαγωγής στο σχέδιο χορηγιών από αιτητές, στοιχεία αξιολόγησης προτάσεων, εγκρίσεις έργων, συμφωνίες χρηματοδότησης, αιτήματα καταβολής χορηγίας, στοιχεία διοικητικών και επιτόπιων επαληθεύσεων, στοιχεία πληρωμών), ανάλογα με τις πρόνοιες του ΣΧ.
- Η ΣΑ τηρεί, σε ηλεκτρονική μορφή, για κάθε επένδυση / μεταρρύθμιση ή για το σύνολο των παρεμβάσεων του ΣΑΑ:
 - Στοιχεία τεκμηρίωσης της μη διπλής χρηματοδότησης κάθε επένδυσης / μεταρρύθμισης του ΣΑΑ
 - Δηλώσεις απουσίας σύγκρουσης συμφερόντων
 - Πιστοποίηση τήρησης της αρχής “Do No Significant Harm” από την αρμόδια οριζόντια αρχή που διενήργησε την αξιολόγηση του συνόλου των επενδύσεων του ΣΑΑ, και κατά περίπτωση απαιτούμενα πιστοποιητικά ή γνωμοδοτήσεις συμμόρφωσης με άλλες οριζόντιες πολιτικές (ισότητα, μη διάκριση, περιβάλλον, δημόσιες συμβάσεις και κρατικές ενισχύσεις)
 - Εκθέσεις ελεγκτικών ενεργειών εσωτερικού και εξωτερικού ανεξάρτητου ελέγχου, που διενεργούνται από τις ΥΕΕ και ΕΥ αντίστοιχα.
 - Αναφορές προόδου διερεύνησης περιπτώσεων παρατυπιών με υπόνοια απάτης, διαφθοράς ή σύγκρουσης συμφερόντων
 - Στοιχεία υλοποίησης των απαιτούμενων ενεργειών που προκύπτουν από κάθε είδους ελεγκτική ενέργεια και σχετική αλληλογραφία μέχρι την ολοκλήρωσή τους.

Γ. Επιπρόσθετα στοιχεία που τηρούνται σε συστήματα αρχειοθέτησης εγγράφων των εμπλεκόμενων φορέων, πριν την έναρξη της παραγωγικής λειτουργίας του ΠΣΠ:

Πέραν των στοιχείων που αναφέρονται στο σημείο Β ανωτέρω, μέχρι την έναρξη της παραγωγικής λειτουργίας του ΠΣΠ, από τους εμπλεκόμενους στις διαδικασίες του ΣΠΕ φορείς τηρούνται επιπρόσθετα τα ακόλουθα στοιχεία, τα οποία, πριν την έναρξη της παραγωγικής λειτουργίας του ΠΣΠ θα μεταπέσουν στο ΠΣΠ με ευθύνη της ΣΑ:

- Οι ΦΥ τηρούν στον Φάκελο Παρέμβασης και όλα τα χρησιμοποιούμενα έγγραφα του ΣΠΕ σε μορφή excel (Δέσμευση Προγραμματισμού και τριμηνιαία ΕΕΠΠ), καθώς και την αλληλογραφία με τη ΣΑ ή τον ΦΠ, που σχετίζεται με την κατάρτιση και επικύρωση των εγγράφων.

- Οι ΦΥ τηρούν, επιπλέον, ενιαίο κατάλογο με τα στοιχεία αναδόχων, υπεργολάβων, τελικών αποδεκτών ενισχύσεων ή πραγματικών δικαιούχων τους, για το σύνολο των παρεμβάσεων ευθύνης τους.
- Οι ΦΠ τηρούν, σε ηλεκτρονική μορφή, τα τριμηνιαία ΕΕΠΠ που τους αποστέλλουν οι ΦΥ ευθύνης τους, ανά επένδυση / μεταρρύθμιση του ΣΑΑ, καθώς και την μεταξύ τους αλληλογραφία και την αλληλογραφία με τη ΣΑ, που σχετίζεται με την κατάρτιση και επικύρωση των εγγράφων.
- Η ΣΑ τηρεί, σε ηλεκτρονική μορφή, για κάθε επένδυση / μεταρρύθμιση του ΣΑΑ, το σύνολο των εγγράφων του ΣΠΕ που της αποστέλλουν οι ΦΥ (Δεσμεύσεις Προγραμματισμού και τριμηνιαία ΕΕΠΠ που επικυρώνει η ίδια) και οι ΦΠ (ΕΕΠΠ που επικυρώνουν εκείνοι στο πλαίσιο των αρμοδιοτήτων τους), καθώς και την μεταξύ τους αλληλογραφία που σχετίζεται με την κατάρτιση και επικύρωση των εγγράφων.
- Η ΣΑ τηρεί επιπλέον, στο επίπεδο του συνολικού ΣΑΑ, ενοποιημένα συγκεντρωτικά στοιχεία, τόσο του αναλυτικού προγραμματισμού του ΣΑΑ βάσει των Δεσμεύσεων Προγραμματισμού, όσο και των τριμηνιαίων στοιχείων προόδου επίτευξης των στόχων και οροσήμων του και των στοιχείων ενδεχόμενων καθυστερήσεων ή άλλων κινδύνων βάσει των ΕΕΠΠ. Τα συγκεντρωτικά στοιχεία δημιουργεί η ίδια, μετά από τη συλλογή και επεξεργασία των επιμέρους ανά παρέμβαση στοιχείων που συγκεντρώνει στο πλαίσιο των διαδικασιών έναρξης / προγραμματισμού και παρακολούθησης των παρεμβάσεων του ΣΑΑ μέσω των χρησιμοποιούμενων εντύπων που της αποστέλλουν οι ΦΥ / ΦΠ σε μορφή excel.
- Η ΣΑ τηρεί επιπλέον, ενιαίο κεντρικό κατάλογο με τα στοιχεία αναδόχων, υπεργολάβων, τελικών αποδεκτών ενισχύσεων ή πραγματικών δικαιούχων τους, για το σύνολο των παρεμβάσεων του ΣΑΑ.
- Η ΣΑ τηρεί επιπλέον, στο επίπεδο του συνολικού ΣΑΑ, όλες τις Αιτήσεις Πληρωμής, διαχειριστικές δηλώσεις, συνόψεις λογιστικών ελέγχων και εκθέσεις προόδου, τις οποίες υποβάλλει στην ΕΕ στο πλαίσιο των υποχρεώσεών της, καθώς και όλη τη σχετική με την ανταλλαγή αυτών των πληροφοριών αλληλογραφία της με την ΕΕ.

Για την ασφάλεια και ακεραιότητα των στοιχείων που τηρούνται σε ηλεκτρονικά αρχεία πριν τη θέση σε λειτουργία του ΠΣΠ και την μετάπτωσή τους σε αυτό, έχουν ληφθεί τα ακόλουθα μέτρα:

- Όλα τα ηλεκτρονικά έγγραφα τηρούνται τόσο στους φορείς που τα παράγουν όσο και στους φορείς - αποδέκτες τους, σε τοπικό server του εκάστοτε φορέα όπου δίνεται περιορισμένη πρόσβαση μόνο σε ολιγάριθμα εξουσιοδοτημένα στελέχη.
- Ειδικά τα επικυρωμένα έγγραφα (Δεσμεύσεις Προγραμματισμού και τριμηνιαία ΕΕΠΠ) επισημαίνονται κατάλληλα, περιλαμβάνουν ημερομηνία υποβολής και ημερομηνία επικύρωσης και δεν τροποποιούνται μετά την επικύρωσή τους. Οποιαδήποτε τυχόν απαιτούμενη εκ των υστέρων τροποποίηση αποτυπώνεται σε νέα έκδοση των εγγράφων, επίσης κατάλληλα επισημασμένη, η οποία για να είναι σε ισχύ θα πρέπει να επικυρώνεται με την ίδια διαδικασία επικύρωσης της αρχικής έκδοσης (μέσω ηλεκτρονικής αλληλογραφίας).

Κάθε νεότερη έκδοση οποιουδήποτε επικυρωμένου εγγράφου, περιλαμβάνει κείμενο όπου επισημαίνονται όλες οι αλλαγές που περιλαμβάνει σε σχέση με την προηγούμενη έκδοση.

- Ειδικά η ΣΑ και οι ΦΠ, με την παραλαβή των τριμηνιαίων ΕΕΠΠ που υποβάλλουν οι ΦΥ και πριν την επικύρωσή τους, επαληθεύουν την ορθότητα των στοιχείων που περιλαμβάνονται σε αυτά και που αφορούν σε στοιχεία της Δέσμευσης Προγραμματισμού ή σε στοιχεία προηγούμενων επικυρωμένων ΕΕΠΠ, ώστε να διασφαλίζεται ότι μεταβάλλονται κάθε φορά μόνο τα στοιχεία του τρέχοντος τριμήνου αναφοράς μια μελλοντικών.
- Κάθε φορέας, είτε αυτός παράγει είτε αποδέχεται ηλεκτρονικά έγγραφα, είναι υπεύθυνος για την ασφαλή αποθήκευση των αρχείων και την τακτική δημιουργία αντιγράφων ασφαλείας με βάση τις πολιτικές ασφάλειας που ακολουθεί ο ίδιος σύμφωνα με το ισχύον θεσμικό πλαίσιο.
- Ως επιπρόσθετο μέτρο ασφάλειας, με την επικύρωση κάθε Δέσμευσης Προγραμματισμού, καθώς και με την ολοκλήρωση της επικύρωσης των ΕΕΠΠ για το σύνολο των παρεμβάσεων του ΣΑΑ κάθε τρίμηνο, η ΣΑ αποστέλλει αντίγραφα των νέων επικυρωμένων εγγράφων (νέων εγγράφων ή νέων εκδόσεων παλαιότερων εγγράφων) στο Υφυπουργείο Έρευνας, Καινοτομίας και Ψηφιακής Πολιτικής για αποθήκευση σε διαδικτυακό τόπο (cloud), σύμφωνα με τις πολιτικές του.

3.4.5 Εξέταση Καταγγελιών

3.4.5.1 Αρμόδιο όργανο λήψης και διερεύνησης καταγγελιών

Για την υποβολή οποιασδήποτε καταγγελίας κατά συγκεκριμένης ενέργειας κρατικής υπηρεσίας ή τοπικής αρχής ή νομικού προσώπου δημοσίου δικαίου ή λειτουργού (ακόμη και αν αυτή αφορά εφαρμογή νομοθεσίας της ΕΕ), ο καταγγέλλων απευθύνεται στον **Επίτροπο Διοικήσεως και Ανθρωπίνων Δικαιωμάτων (Ombudsman)**, που αποτελεί τον κατ' εξοχήν θεσμό εξωδικαστικού ελέγχου της διοίκησης και προστασίας των ανθρωπίνων δικαιωμάτων στην Κυπριακή Δημοκρατία, σύμφωνα με τα οριζόμενα στους περί Επιτρόπου Διοικήσεως Νόμους του 1991 έως 2014.

Με βάση τους περί Επιτρόπου Διοικήσεως Νόμους του 1991 έως 2014, ο Επίτροπος Διοικήσεως και Ανθρωπίνων Δικαιωμάτων είναι η Ανεξάρτητη Αρχή που έχει, μεταξύ άλλων, την εξουσία:

- α) να διερευνά καταγγελίες/παράπονα που στρέφονται εναντίον ενεργειών (πράξεων, αποφάσεων ή παραλείψεων) υπηρεσιών ή λειτουργιών του δημόσιου και του ευρύτερου δημόσιου τομέα (δηλαδή τοπικών αρχών και νομικών προσώπων δημοσίου δικαίου), οι οποίες, ενδεχομένως, παραβιάζουν τα ανθρωπίνια ή άλλα δικαιώματα ή/και αντίκεινται στις αρχές της χρηστής διοίκησης ή/και τους κανόνες ορθής συμπεριφοράς προς τους διοικούμενους,
- β) όταν, μετά από τη διερεύνηση καταγγελίας/παραπόνου, διαπιστώσει ότι προκλήθηκε οποιαδήποτε βλάβη ή αδικία σε βάρος προσώπου, να υποβάλει πρόταση, εισήγηση ή σύσταση στην αρμόδια αρχή για την επανόρθωση της βλάβης ή της αδικίας και να καθορίσει το χρόνο εντός του οποίου η εν λόγω βλάβη ή αδικία πρέπει να επανορθωθεί και,
- γ) να διαβουλευέται με κάθε πρόσφορο τρόπο για την υλοποίηση των εισηγήσεών του και για την επίλυση του προβλήματος του προσώπου που υπέβαλε καταγγελία/παράπονο· σε περίπτωση

που η αρμόδια αρχή δεν ενημερώσει εντός της ταχθείσας προθεσμίας ως προς τις ενέργειές της αναφορικά με την εφαρμογή των προτάσεων, εισηγήσεων ή συστάσεων του Επιτρόπου ή δεν αποδέχεται την εφαρμογή τους και εφόσον ο Επίτροπος κρίνει ότι οι προβληθέντες εκ μέρους της αρμόδιας αρχής λόγοι σχετικά με τη μη αποδοχή τους δεν αιτιολογούνται επαρκώς, υποβάλλει το αποτέλεσμα των διαβουλεύσεων στο Υπουργικό Συμβούλιο και στη Βουλή των Αντιπροσώπων, και δύναται να δημοσιοποιήσει την άρνηση ή την παράλειψη συμμόρφωσης της αρμόδιας αρχής με τις προτάσεις του.

Οποιοσδήποτε άμεσα και προσωπικά επηρεαζόμενος από μία τέτοια ενέργεια μπορεί να υποβάλει παράπονο/καταγγελία στον Επίτροπο Διοικήσεως και Ανθρωπίνων Δικαιωμάτων, νοουμένου ότι δεν έχει προσφύγει σε Δικαστήριο ή ασκήσει ιεραρχική προσφυγή κατά της ίδιας ενέργειας.

Οι περί Επιτρόπου Διοικήσεως Νόμοι δεν επιτρέπουν τη διερεύνηση παραπόνων/καταγγελιών που αφορούν ενέργειες φυσικών προσώπων (ιδιωτών) ή νομικών προσώπων ιδιωτικού δικαίου (π.χ. εταιρειών ή σωματείων), και τις ενέργειες του Προέδρου της Δημοκρατίας, του Υπουργικού Συμβουλίου, Υπουργών (για θέματα κυβερνητικής πολιτικής ή τις δραστηριότητές τους ως μελών του Υπουργικού Συμβουλίου), της Βουλής των Αντιπροσώπων, του Γενικού Εισαγγελέα, του Γενικού Ελεγκτή, του Διοικητή της Κεντρικής Τράπεζας και της Επιτροπής Δημόσιας Υπηρεσίας.

Με βάση πρόνοιες άλλων Νόμων, δηλ.:

- του περί Καταπολέμησης των Φυλετικών και Ορισμένων Άλλων Διακρίσεων (Επίτροπος) Νόμου του 2004,
- των περί Ίσης Μεταχείρισης (Φυλετική ή Εθνοτική Καταγωγή) Νόμων του 2004 έως 2006,
- των περί Ίσης Μεταχείρισης στην Απασχόληση και την Εργασία Νόμων του 2004 έως 2009,
- των περί Ίσης Αμοιβής μεταξύ Ανδρών και Γυναικών για την Ίδια Εργασία ή για Εργασία Ίσης Αξίας Νόμων του 2002 έως 2014,
- των περί Ίσης Μεταχείρισης Ανδρών και Γυναικών (Πρόσβαση σε Αγαθά και Υπηρεσίες και στην Παροχή Αυτών) Νόμων του 2008 και 2013,
- των περί Ίσης Μεταχείρισης Ανδρών και Γυναικών στην Απασχόληση και στην Επαγγελματική Εκπαίδευση Νόμων του 2002 έως 2014,
- των περί Ατόμων με Αναπηρίες Νόμων του 2000 έως 2015,

ο Επίτροπος διερευνά, επίσης, καταγγελίες τόσο κατά του δημόσιου όσο και κατά του ιδιωτικού τομέα, που αφορούν διακρίσεις λόγω φύλου, φυλής, εθνικής ή εθνοτικής καταγωγής, γλώσσας, χρώματος, θρησκείας, πολιτικών ή άλλων πεποιθήσεων, αναπηρίας, ηλικίας και σεξουαλικού προσανατολισμού. Σε περίπτωση διαπίστωσης τέτοιας διάκρισης ο Επίτροπος έχει εξουσία λήψης μέτρων για εξάλειψή της και οι αποφάσεις του σε τέτοια θέματα είναι δεσμευτικές για τις εμπλεκόμενες υπηρεσίες.

Με την υπ' αριθμό 73.519 Απόφαση του Υπουργικού Συμβουλίου, ημερ. 9 Μαΐου 2012, για την εφαρμογή του άρθρου 33 της Σύμβασης του Οργανισμού Ηνωμένων Εθνών για τα Δικαιώματα των Ατόμων με Αναπηρίες, ο Επίτροπος ορίστηκε ως Ανεξάρτητος Μηχανισμός για την προώθηση,

προστασία και παρακολούθηση της Σύμβασης. Ο Επίτροπος, υπό την ιδιότητά του αυτή, μπορεί να εξετάσει καταγγελίες που αφορούν πιθανές παραβιάσεις προνοιών της Σύμβασης.

3.4.5.2 Διαδικασία εξέτασης καταγγελιών

Για την υποβολή, υποδοχή και διαχείριση καταγγελιών που αφορούν στην υλοποίηση του ΣΑΑ, ακολουθούνται τα παρακάτω βήματα:

1. Η καταγγελία μπορεί να υποβληθεί μέσω συμπλήρωσης του εντύπου υποβολής παραπόνου ή του ηλεκτρονικού εντύπου υποβολής παραπόνου που διατίθεται στον Ιστότοπο του Γραφείου του Επιτρόπου (<http://www.ombudsman.gov.cy>), ή μέσω αποστολής επιστολής ταχυδρομικώς, ή με email ή με φαξ.
2. Ο Επίτροπος Διοικήσεως παραλαμβάνει την υποβληθείσα καταγγελία.
3. Εξετάζεται αν η υποβληθείσα καταγγελία εμπίπτει στις αρμοδιότητες του Επιτρόπου Διοικήσεως σύμφωνα με το ισχύον νομικό πλαίσιο και, αν όχι, ο καταγγέλλων ενημερώνεται σχετικά και/ή η καταγγελία προωθείται στο αρμόδιο όργανο.
4. Εφόσον εμπίπτει στην αρμοδιότητά του, ο Επίτροπος Διοικήσεως εξετάζει το παραδεκτό της καταγγελίας και ενημερώνει σχετικά τον καταγγέλλοντα.
5. Στην περίπτωση καταγγελιών που αφορούν στην υλοποίηση του ΣΑΑ, και εφόσον αυτές έχουν κριθεί παραδεκτές προς διερεύνηση, ο Επίτροπος ενημερώνει σχετικά τη ΣΑ.
6. Ο Επίτροπος διερευνά την υπόθεση και, στην περίπτωση που διαπιστώσει ότι προκλήθηκε οποιαδήποτε βλάβη ή αδικία σε βάρος του καταγγέλλοντος, υποβάλει συστάσεις /εισηγήσεις στην αρμόδια αρχή για την επανόρθωση της βλάβης ή της αδικίας εντός καθορισμένου χρόνου. Σε κάθε περίπτωση, ενημερώνει τη ΣΑ για το αποτέλεσμα της διερεύνησης.
7. Η ΣΑ, στην περίπτωση που διαπιστώνεται βλάβη ή αδικία σε βάρος του καταγγέλλοντος, εξετάζει την περίπτωση ανάδειξης υπόνοιας απάτης, διαφθοράς ή σύγκρουσης συμφερόντων ή παρατυπίας και ενεργοποιεί κατά περίπτωση τη σχετική διαδικασία (παρ. 3.4.2), σε συνεργασία με τον Εθνικό Συντονιστικό Φορέα για την καταπολέμηση της απάτης.
8. Ο Επίτροπος παρακολουθεί τη συμμόρφωση της αρμόδιας αρχής προς τις συστάσεις /εισηγήσεις του διατηρώντας τα δικαιώματά του σύμφωνα με το ισχύον νομικό πλαίσιο και ενημερώνει τη ΣΑ για το κλείσιμο της υπόθεσης.

Στην περίπτωση καταγγελιών που αφορούν στη λειτουργία του ΜΑΑ και υποβάλλονται στην ΕΕ, η ΕΕ προωθεί σχετικό αίτημα για την εξέτασή τους στο κράτος-μέλος. Τις καταγγελίες αυτές εξετάζει, διερευνά και διαχειρίζεται η ΣΑ, με την υποστήριξη και των αρμόδιων ΦΠ εφόσον έχουν οριστεί και εφόσον απαιτείται, ενημερώνοντας σχετικά την ΕΕ.

Επιπρόσθετα, επισημαίνεται ότι κατά την τρέχουσα περίοδο έχει καταρτιστεί και αναμένεται να ψηφιστεί άμεσα νομοσχέδιο για την ίδρυση Ανεξάρτητης Αρχής κατά της Διαφθοράς στην Κυπριακή Δημοκρατία («Ο περί της σύστασης και λειτουργίας Ανεξάρτητης Αρχής κατά της Διαφθοράς Νόμος του 2021»). Σύμφωνα με το νομοσχέδιο, σε περιπτώσεις καταγγελιών σχετικών με ζητήματα διαφθοράς, αυτές τυγχάνουν ενδεδειγμένης διερεύνησης από την Ανεξάρτητη Αρχή κατά της Διαφθοράς, η οποία έχει πρόσβαση σε έγγραφα, βιβλία, ηλεκτρονικές βάσεις δεδομένων και αρχεία όλων των τμημάτων, διευθύνσεων, αρχών και υπηρεσιών του δημόσιου, ευρύτερου

δημόσιου κα ιδιωτικού τομέα. Μέχρι την ψήφιση του εν λόγω νομοσχεδίου, την αρμοδιότητα του συντονισμού της διερεύνησης καταγγελιών σχετικών με ζητήματα διαφθοράς, καθώς και με ζητήματα απάτης και σύγκρουσης συμφερόντων, αναλαμβάνει ο Εθνικός Συντονιστικός Φορέας για την Καταπολέμηση της Απάτης κατά των συμφερόντων της Ευρωπαϊκής Ένωσης (AFCOS). Ωστόσο, εάν η καταγγελία είναι τέτοια που δημιουργεί τη βάση για εύλογη υπόνοια διάπραξης αδικημάτων διαφθοράς τότε ο καταγγέλλων παραπέμπεται για υποβολή της καταγγελίας του και των όποιων στοιχείων κατέχει, στην Αστυνομία, ενώ σε περίπτωση που διαπιστώνεται ενδεχόμενο διάπραξης ποινικών αδικημάτων, τότε ενημερώνεται ο Γενικός Εισαγγελέας της Δημοκρατίας για να ενεργήσει στο πλαίσιο των εξουσιών του.

Με την ψήφιση και θέση σε ισχύ του νομοσχεδίου για την ίδρυση της Ανεξάρτητης Αρχής κατά της Διαφθοράς, θα τροποποιηθεί κατάλληλα το ΣΠΕ ώστε να περιλαμβάνει και τις αρμοδιότητες της Αρχής και θα ενημερωθεί σχετικά η ΕΕ όπως αναφέρεται στην παράγραφο 1.2.

3.5 Αιτήσεις Πληρωμής και Υποβολή Εκθέσεων

3.5.1 Υποβολή Αιτήσεων Πληρωμής

Η Συντονιστική Αρχή, και συγκεκριμένα η Μονάδα Συντονισμού 2, υποβάλλει, σύμφωνα με το Άρθρο 22(2)(c) του Κανονισμού του ΜΑΑ, Αιτήσεις Πληρωμής προς την ΕΕ για την καταβολή της χρηματοδοτικής συνεισφοράς του ΜΑΑ, δύο φορές ετησίως, μετά την ολοκλήρωση των αντίστοιχων συμφωνηθέντων οροσήμων και στόχων που αναφέρονται στο ΣΑΑ όπως αυτό έχει εγκριθεί σύμφωνα με το άρθρο 20 του Κανονισμού.

Κάθε Αίτηση Πληρωμής συνοδεύεται από:

- Διαχειριστική Δήλωση ότι:
 - τα κεφάλαια χρησιμοποιήθηκαν για τον σκοπό για τον οποίο προορίζονταν,
 - οι πληροφορίες που υποβλήθηκαν με το αίτημα καταβολής είναι πλήρεις, ακριβείς και αξιόπιστες και
 - τα εφαρμοζόμενα συστήματα ελέγχου παρέχουν τις αναγκαίες εγγυήσεις ότι η διαχείριση των κονδυλίων πραγματοποιήθηκε σύμφωνα με όλους τους εφαρμοστέους κανόνες, ιδίως τους κανόνες σχετικά με την πρόληψη της απάτης, την αποφυγή της σύγκρουσης συμφερόντων, της διαφθοράς και της διπλής χρηματοδότησης από τον μηχανισμό και άλλα προγράμματα της Ένωσης ή εθνικά προγράμματα, σύμφωνα με την αρχή της χρηστής δημοσιονομικής διαχείρισης.
- Σύνοψη των λογιστικών ελέγχων που διενεργήθηκαν, η οποία περιλαμβάνει:
 - Σύνοψη των αποτελεσμάτων των λογιστικών ελέγχων που έχουν διενεργηθεί,

- Ανάλυση της φύσης και έκτασης των σφαλμάτων και αδυναμιών που εντοπίστηκαν από τους διενεργηθέντες ελέγχους, συμπεριλαμβανομένων τυχόν παρατυπιών και περιπτώσεων απάτης, διαφθοράς ή σύγκρουσης συμφερόντων.
- Παρουσίαση των διορθωτικών μέτρων που έχουν ληφθεί ή προγραμματίζονται σύμφωνα με τις συστάσεις των ελεγκτικών οργάνων, συμπεριλαμβανομένων των αποφάσεων για δημοσιονομικές διορθώσεις, καθώς και της προόδου εφαρμογής τους, με το σχετικό υλικό τεκμηρίωσης.

Η δυνατότητα της ΣΑ να υποβάλλει έγκαιρα και σύμφωνα με το συμφωνηθέν χρονοδιάγραμμα τα παραπάνω και να διαβεβαιώνει την ακρίβεια και ορθότητα των παρεχόμενων πληροφοριών, διασφαλίζεται με την τήρηση των οριζόμενων στο Σύστημα Παρακολούθησης και Ελέγχου και στην εθνική νομοθεσία από όλους τους αρμόδιους για την παρακολούθηση και τον έλεγχο των παρεμβάσεων του ΣΑΑ φορείς. Πιο συγκεκριμένα, την έγκαιρη και ορθή υποβολή κάθε Αίτησης Πληρωμής και των συνοδευτικών της εγγράφων διασφαλίζουν οι ακόλουθες διαδικασίες:

- Η τακτική υποβολή στοιχείων προόδου επίτευξης στόχων και οροσήμων, μέσω του ΠΣΠ, από όλους τους Φορείς Υλοποίησης επενδύσεων και μεταρρυθμίσεων του ΣΑΑ
- Οι επαληθεύσεις που διενεργεί η ίδια η ΣΑ, με την υποστήριξη των ΦΠ όπου αυτοί έχουν οριστεί, για σκοπούς πιστοποίησης της επίτευξης των στόχων και οροσήμων κάθε επένδυσης και μεταρρύθμισης του ΣΑΑ
- Η συνεχής παρακολούθηση της υλοποίησης του συνολικού ΣΑΑ από την ΣΑ σε κεντρικό επίπεδο
- Η άμεση αντιμετώπιση κινδύνων καθυστερήσεων και θεμάτων προς επίλυση που εντοπίζονται καθ' όλη τη διάρκεια υλοποίησης των επενδύσεων και μεταρρυθμίσεων από τους υπεύθυνους για την αντιμετώπισή τους φορείς
- Η διενέργεια καθολικών επαληθεύσεων της υλοποίησης του φυσικού και του οικονομικού αντικείμενου των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ σύμφωνα με την ισχύουσα εθνική νομοθεσία
- Η διενέργεια εσωτερικών (internal audit) δευτεροβάθμιων και εξωτερικών (external audit) τριτοβάθμιων ελέγχων, από την ΥΕΕ και την ΕΥ αντίστοιχα, που διασφαλίζουν την εφαρμογή της χρηστής δημοσιονομικής διαχείρισης αλλά και την τήρηση των διαδικασιών της εθνικής νομοθεσίας και του ΣΠΕ από όλους τους εμπλεκόμενους φορείς. Η Μονάδα Συντονισμού 2 της ΣΑ διασφαλίζει ότι τα αποτελέσματα των ελεγκτικών ενεργειών των σωμάτων εκ των υστέρων ελέγχων (ΥΕΕ, ΕΥ) ενσωματώνονται και αντικατοπτρίζονται στην κάθε δήλωση διαχείρισης και Αίτηση Πληρωμής για τις παρεμβάσεις που πρόκειται να περιληφθούν σε αυτήν.
- Η πρόληψη, ανίχνευση και αντιμετώπιση κινδύνων απάτης, διαφθοράς και σύγκρουσης συμφερόντων και η διασφάλιση της αποφυγής διπλής χρηματοδότησης, είτε μέσω των επαληθευτικών και ελεγκτικών ενεργειών του ΣΠΕ που εφαρμόζονται σε όλα τα επίπεδα είτε μέσω της διαχείρισης καταγγελιών.

- Η καταχώριση στο ΠΣΠ όλων των λογιστικών και άλλων ελέγχων που διενεργούν σε εθνικό επίπεδο οι αρμόδιοι ελεγκτικοί φορείς για τις παρεμβάσεις του ΣΑΑ, με τα αποτελέσματα των ελέγχων και τα στοιχεία διορθωτικών ενεργειών που ακολουθούν τυχόν ευρήματα, προκειμένου να παράγεται, μέσω του ΠΣΠ, η απαιτούμενη συνοπτική αναφορά λογιστικών και λοιπών ελέγχων που συνοδεύει την Αίτηση Πληρωμής.

Τόσο η Αίτηση Πληρωμής, όσο και η διαχειριστική δήλωση και η σύνοψη λογιστικών ελέγχων που τη συνοδεύουν, παράγονται μέσω κατάλληλων αναφορών του ΠΣΠ οι οποίες είναι διαθέσιμες σε κάθε χρονική στιγμή, προκειμένου να αντιμετωπίζονται έγκαιρα τυχόν παρατηρούμενες ελλείψεις ή καθυστερήσεις.

Επισημαίνεται ότι, μέχρι την έναρξη της παραγωγικής λειτουργίας του ΠΣΠ, η ΣΑ, και συγκεκριμένα η Μονάδα Συντονισμού 2, έχει την ευθύνη για την εξω-συστημική εκπόνηση των Αιτήσεων Πληρωμής, της δήλωσης διαχείρισης και της σύνοψης των λογιστικών ελέγχων. Για τον σκοπό αυτό:

- Συγκεντρώνει, με την υποστήριξη της Μονάδας Συντονισμού 1, τα επικυρωμένα Έντυπα Ενημέρωσης Προόδου (βλ. σχετικό ενδεικτικό υπόδειγμα Νο 2: «Έντυπο Ενημέρωσης Προόδου» στο Παράρτημα IV) τα οποία υποβάλλουν οι ΦΥ σε μορφή excel ανά τρίμηνο και τα οποία περιλαμβάνουν όλα τα απαραίτητα στοιχεία προόδου επίτευξης των στόχων και οροσήμων των παρεμβάσεων ευθύνης τους, καθώς και την πρόοδο των ενεργειών αντιμετώπισης υπονοιών ή περιπτώσεων απάτης, διαφθοράς ή σύγκρουσης συμφερόντων. Με βάση τα έντυπα αυτά, καταρτίζει συνολικό κατάλογο των επενδύσεων και μεταρρυθμίσεων που συμμετέχουν στην εκάστοτε Αίτηση Πληρωμής, με τα στοιχεία επίτευξης των στόχων και οροσήμων τους και με τα απαιτούμενα στοιχεία τεκμηρίωσης αυτής της επίτευξης.
- Επεξεργάζεται τον ενιαίο κεντρικό κατάλογο με τα στοιχεία των τελικών αποδεκτών χρηματοδότησης (final recipients), των αναδόχων και υπεργολάβων Έργων ΔΣ και των πραγματικών δικαιούχων (UBOs) των αναδόχων και των τελικών αποδεκτών ενισχύσεων που της αποστέλλουν οι ΦΥ, προκειμένου να είναι σε θέση να διασφαλίσει την αποφυγή διπλής χρηματοδότησης ή σύγκρουσης συμφερόντων, σύμφωνα με το Άρθρο 22(2)(d) του Κανονισμού του ΜΑΑ.
- Συγκεντρώνει τις εκθέσεις ελέγχου των ΥΕΕ και ΕΥ για τις παρεμβάσεις που πρόκειται να περιληφθούν στην Αίτηση Πληρωμής. Με βάση αυτές τις εκθέσεις, εκπονεί τη σύνοψη λογιστικών ελέγχων που συνοδεύει την Αίτηση Πληρωμής, όπου περιλαμβάνονται και όλες οι περιπτώσεις ή υποψίες απάτης, διαφθοράς ή σύγκρουσης συμφερόντων που έχουν εντοπιστεί.
- Συγκεντρώνει τις καταγγελίες που σχετίζονται με ζητήματα διαφθοράς, καθώς και με ζητήματα απάτης και σύγκρουσης συμφερόντων, από τον Εθνικό Συντονιστικό Φορέα για την Καταπολέμηση της Απάτης κατά των συμφερόντων της Ευρωπαϊκής Ένωσης (AFCOS).

Με την ολοκλήρωση της πιλοτικής λειτουργίας του ΠΣΠ, η ΣΑ έχει την ευθύνη για την καταχώριση στο ΠΣΠ όλων των δεδομένων προόδου και των εκθέσεων ελέγχου που έχουν παραχθεί μέχρι εκείνη τη στιγμή, καθώς και για την καταχώριση όλων των αιτήσεων πληρωμής, των διαχειριστικών δηλώσεων και των συνόψεων λογιστικών ελέγχων που έχουν εκπονηθεί, ώστε με την έναρξη της παραγωγικής λειτουργίας του ΠΣΠ να είναι διαθέσιμο και προσβάσιμο από τους αρμόδιους φορείς και στελέχη το σύνολο των πληροφοριών που πρέπει να τηρούνται και να παρέχονται μέσω του Συστήματος.

3.5.2 Υποβολή Εκθέσεων Προόδου

Σύμφωνα με το Άρθρο 27 του Κανονισμού του ΜΑΑ, στο πλαίσιο του Ευρωπαϊκού Εξαμήνου, το οικείο κράτος μέλος υποβάλλει δύο φορές ετησίως Έκθεση Προόδου ως προς την υλοποίηση του ΣΑΑ, σύμφωνα με το χρονοδιάγραμμα και τα οριζόμενα στην Επιχειρησιακή Ρύθμιση που αναφέρεται στο άρθρο 20 παράγραφος 6 του Κανονισμού. Την αρμοδιότητα αυτή ασκεί η ΣΑ, και συγκεκριμένα η Μονάδα Συντονισμού 1.

Οι Εκθέσεις Προόδου περιλαμβάνουν επιπλέον και στοιχεία επίτευξης των κοινών δεικτών που αναφέρονται στο άρθρο 29 παράγραφος 4, όπου αυτό εφαρμόζεται. Επίσης σε αυτές αναφέρονται τυχόν τροποποιήσεις που έχουν γίνει στο ΣΠΕ, είτε ως προς τις εφαρμοζόμενες διαδικασίες είτε ως προς τους φορείς που εμπλέκονται σε αυτές, με την κατάλληλη τεκμηρίωση για τους λόγους που οδήγησαν στην τροποποίηση.

Η εκπόνηση των Εκθέσεων Προόδου υποστηρίζεται από κατάλληλες αναφορές του ΠΣΠ οι οποίες μπορούν να παράγονται σε οποιαδήποτε χρονική στιγμή, προκειμένου να αντιμετωπίζονται έγκαιρα τυχόν παρατηρούμενες ελλείψεις ή καθυστερήσεις.

Μέχρι τη θέση του ΠΣΠ σε πλήρη παραγωγική λειτουργία, τις Εκθέσεις Προόδου εκπονεί η Μονάδα Συντονισμού 1 της ΣΑ με βάση τα στοιχεία προόδου των παρεμβάσεων του ΣΑΑ που τηρεί η ίδια (Έντυπα Ενημέρωσης Προόδου, κεντρικός κατάλογος αναδόχων / δικαιούχων ενισχύσεων και πραγματικών δικαιούχων τους, αιτήσεις πληρωμής, διαχειριστικές δηλώσεις και συνόψεις λογιστικών ελέγχων που έχουν διενεργηθεί κατά την περίοδο αναφοράς).

4 ΠΛΗΡΟΦΟΡΙΑΚΟ ΣΥΣΤΗΜΑ ΠΑΡΑΚΟΛΟΥΘΗΣΗΣ ΤΗΣ ΥΛΟΠΟΙΗΣΗΣ ΤΟΥ ΣΑΑ

4.1 Εισαγωγή

Το Πληροφοριακό Σύστημα Παρακολούθησης (ΠΣΠ) της υλοποίησης του ΣΑΑ, είναι το μηχανογραφημένο σύστημα μέσω του οποίου εκπληρώνονται οι απαιτήσεις του Κανονισμού του ΜΑΑ και των σχετικών Εγγράφων Καθοδήγησης της ΕΕ:

- για την ασφαλή και έγκυρη συνεχή παρακολούθηση της επίτευξης των δεσμεύσεων του εγκεκριμένου ΣΑΑ.
- για την ηλεκτρονική αποθήκευση και ανταλλαγή δεδομένων μεταξύ των φορέων που εμπλέκονται στην υλοποίηση του ΣΑΑ.

Την ευθύνη για τον σχεδιασμό και τη λειτουργία του ΠΣΠ έχει η Συντονιστική Αρχή, η οποία είναι επιπλέον υπεύθυνη για:

- Την εξυπηρέτηση και λειτουργική υποστήριξη των χρηστών και την επίλυση προβλημάτων που μπορεί να προκύψουν, μέσω της λειτουργίας γραφείου βοήθειας χρηστών (help desk). Το γραφείο αυτό συντονίζει επίσης τα διάφορα τμήματα και εξασφαλίζει την επίλυση των προβλημάτων, που προκύπτουν, το συντομότερο δυνατό.
- Την εκπαίδευση των χρηστών και την παραχώρηση των κωδικών πρόσβασης στο Σύστημα.
- Τη διασφάλιση της συντήρησης του Συστήματος.

4.2 Γενικά χαρακτηριστικά

4.2.1 Ανάγκες και Απαιτήσεις

Το ΠΣΠ αποτελεί το βασικό εργαλείο για την παρακολούθηση της υλοποίησης των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ αλλά και του ΣΑΑ ως συνολικού προγράμματος, συγκεντρώνοντας όλη την απαιτούμενη πληροφορία σε διάφορα ιεραρχικά επίπεδα και κατηγοριοποιήσεις, ανάλογα με τις απαιτήσεις παρακολούθησης του κάθε χρήστη. Πιο συγκεκριμένα, ικανοποιεί τις ακόλουθες ανάγκες και απαιτήσεις:

- Απαιτήσεις Κανονισμού του ΜΑΑ και σχετικών Εγγράφων Καθοδήγησης της ΕΕ για τη συλλογή και τήρηση πληροφοριών και για την ασφαλή και έγκυρη παρακολούθηση της επίτευξης των στόχων και οροσήμων του ΣΑΑ

- Υποστήριξη της εφαρμογής των διαδικασιών του ΣΠΕ και ιδίως των διαδικασιών Έναρξης και Προγραμματισμού, Παρακολούθησης, Ελέγχου, Υποβολής Αιτήσεων Πληρωμής και εξαγωγής αναφορών τόσο για σκοπούς παρακολούθησης όσο και για σκοπούς ενημέρωσης της ΕΕ.
- Διαχείριση της τηρούμενης πληροφορίας από το ανώτερο επίπεδο (ΣΑΑ, Άξονες Προτεραιότητας) έως το κατώτερο επίπεδο (επένδυση / μεταρρύθμιση, έργο, δέσμευση, στόχος και ορόσημο)
- Ηλεκτρονική ανταλλαγή και τήρηση δεδομένων με τρόπο που να εξασφαλίζονται τα ακόλουθα:
 - Η ακεραιότητα και η εμπιστευτικότητα των πληροφοριών (data integrity & confidentiality)
 - Η ταυτότητα του αποστολέα (authentication)
 - Η μόνιμη αποθήκευση και διατήρηση των στοιχείων (δομημένα και αδόμητα)
 - Η διαθεσιμότητα των στοιχείων (availability) τόσο κατά τη διάρκεια όσο και εκτός ωραρίου εργασίας.
- Συμμόρφωση με την αρχή «μόνο μία φορά» (“Only Once” encoding principle), επιτρέποντας σε κάθε χρήστη να υποβάλλει μια μόνο φορά κάθε απαιτούμενη πληροφορία.
- Δυνατότητα δημιουργίας ρόλων και ύπαρξης πολλαπλών επιπέδων ορισμού δικαιωμάτων πρόσβασης, για τη διασφάλιση του διαχωρισμού καθηκόντων (segregation of duties), αναθέτοντας σε διαφορετικά άτομα διαφορετικούς ρόλους ώστε να είναι διακριτές οι εργασίες που μπορεί κάθε χρήστης να επιτελέσει.
- Διαλειτουργικότητα με άλλα πληροφοριακά συστήματα, όπως ενδεικτικά:
 - Το ERP του ΓΛτΔ, για λήψη στοιχείων δαπανών σε επίπεδο έργου ή/και συγκεντρωτικά
 - Το Μητρώο Πραγματικών Δικαιούχων Εφόρου Εταιρειών (Σύστημα υπό ανάπτυξη), για λήψη στοιχείων πραγματικών δικαιούχων (UBOs)
 - Το σύστημα ARACHNE της ΕΕ, ώστε να αξιοποιηθεί η προσφερόμενη λειτουργικότητα για τη διαχείριση κινδύνων και στοιχείων απάτης και διαφθοράς
 - Το σύστημα e-procurement για την παρακολούθηση των σχεδιαζόμενων και υλοποιούμενων δημοσίων συμβάσεων
 - Συστήματα ΦΥ ΣΧ όπου ενδεχομένως τηρούνται στοιχεία τελικών αποδεκτών ενισχύσεων και πραγματικών δικαιούχων.
- Λειτουργικές απαιτήσεις χρηστών όπως:
 - Αξιόπιστη και ευέλικτα παραμετροποιημένη εξαγωγή αναφορών παρακολούθησης σε διάφορα ιεραρχικά επίπεδα (ανά έργο, επένδυση / μεταρρύθμιση, component / subcomponent, άξονα προτεραιότητας, σύνολο ΣΑΑ κλπ.) και με δυνατότητες εφαρμογής έξυπνων φίλτρων για διάφορα είδη κατηγοριοποίησης των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ (ανά κατηγορία ΦΥ, θεματική κατηγορία, τρόπο υλοποίησης, πεδίο παρέμβασης, συμμετοχή στον ψηφιακό και περιβαλλοντικό στόχο, κλπ.)

- Διαδικτυακή, διαδραστική πρόσβαση χρήστη (web based) μέσω ενός τυπικού φυλλομετρητή ιστού (internet browser)
- Άμεσες ειδοποιήσεις (Notifications) για events που αφορούν λειτουργικές διαδικασίες του συστήματος
- Διαχείριση εγγράφων με λειτουργίες upload/ download, πολλαπλές εκδόσεις – ιστορικό, αναζήτηση επί των περιεχομένων (full text retrieval), προεπισκόπηση εγγράφων (document preview)

4.2.2 Χρήστες του Συστήματος

Για την άσκηση των καθηκόντων τους σύμφωνα με τα οριζόμενα στο ΣΠΕ, στο ΠΣΠ έχουν άμεση πρόσβαση, μέσω κατάλληλα εξουσιοδοτημένων λειτουργιών τους, οι:

- Συντονιστική Αρχή, για την καταχώριση εγκρίσεων και την εξαγωγή αναφορών παρακολούθησης για το σύνολο των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ
- Φορείς Παρακολούθησης, για την καταχώριση εγκρίσεων και την εξαγωγή αναφορών παρακολούθησης για τις επενδύσεις και μεταρρυθμίσεις ευθύνης τους
- Φορείς Υλοποίησης, για την καταχώριση πρωτογενούς πληροφορίας σχετικά με την πρόοδο υλοποίησης των επενδύσεων και παρεμβάσεων ευθύνης τους.

Ταυτόχρονα, η ΣΑ και οι ΦΥ έχουν την ευθύνη για την καταχώριση στο ΠΣΠ όλων των απαραίτητων στοιχείων και πληροφοριών που προέρχονται από άλλους φορείς που εμπλέκονται στις διαδικασίες του ΣΠΕ, οι οποίοι δεν έχουν οι ίδιοι πρόσβαση σε αυτό. Πιο συγκεκριμένα:

- Η ΣΑ έχει την ευθύνη για την καταχώριση στο ΠΣΠ των αποτελεσμάτων των ελεγκτικών ενεργειών που διενεργούν οι ανεξάρτητοι ελεγκτικοί φορείς εσωτερικού (Υπηρεσία Εσωτερικού Ελέγχου) και εξωτερικού (Ελεγκτική Υπηρεσία / Γενικός Ελεγκτής) ελέγχου,
- Οι ΦΥ έχουν την ευθύνη για την καταχώριση στο ΠΣΠ στοιχείων και πληροφοριών των τελικών αποδεκτών χρηματοδότησης (final recipients), των αναδόχων και υπερβολάβων Έργων ΔΣ και των πραγματικών δικαιούχων (UBOs) των αναδόχων και των τελικών αποδεκτών χρηματοδότησης, σύμφωνα με το Άρθρο 22(2)(d) του Κανονισμού του ΜΑΑ, μέχρι την ολοκλήρωση του υπό υλοποίηση Μητρώου Πραγματικών Δικαιούχων του Εφόρου Εταιρειών.

Επιπρόσθετα, πρόσβαση για την ανάκληση πληροφορίας από το ΠΣΠ (read only access) έχουν κατάλληλα εξουσιοδοτημένοι χρήστες από:

- Το Υπουργείο Οικονομικών
- Το Γενικό Λογιστήριο της Δημοκρατίας
- Τους ελεγκτικούς φορείς εσωτερικού και εξωτερικού ανεξάρτητου ελέγχου (ΥΕΕ, ΥΕ)
- Τον Εθνικό Συντονιστικό Φορέα για την Καταπολέμηση της Απάτης κατά των συμφερόντων της Ευρωπαϊκής Ένωσης (AFCOS).

4.3 Συστατικά μέρη (modules) του ΠΣΠ

Το Πληροφοριακό Σύστημα για την Παρακολούθηση της υλοποίησης του ΣΑΑ περιλαμβάνει ενδεικτικά τα κάτωθι συστατικά μέρη (modules):

ΠΡΟΓΡΑΜΜΑΤΙΣΜΟΣ ΣΑΑ

- Στοιχεία προγραμματισμού του εγκεκριμένου ΣΑΑ και της Επιχειρησιακής Ρύθμισης, όπως ενδεικτικά:
 - Προγραμματικό δέντρο,
 - Συνολικά στοιχεία ΣΑΑ, συνολικός προϋπολογισμός, προϋπολογισμός ανά έτος,
 - Στοιχεία επενδύσεων και μεταρρυθμίσεων όπως αυτά περιλήφθηκαν στο εγκεκριμένο ΣΑΑ
 - Δημιουργία αρχείου κινδύνων και θεμάτων προς επίλυση
- Παραμετρικά δεδομένα, χρησιμοποιούμενα από όλα τα modules, όπως ενδεικτικά:
 - κατηγοριοποιήσεις επενδύσεων και μεταρρυθμίσεων,
 - Φορείς Παρακολούθησης,
 - Φορείς Υλοποίησης και κατηγορίες ΦΥ,
 - Κωδικοποιημένα ενδιάμεσα στάδια ανά τύπο επένδυσης / μεταρρύθμισης κλπ.

ΕΝΑΡΞΗ ΚΑΙ ΠΡΟΓΡΑΜΜΑΤΙΣΜΟΣ ΕΠΕΝΔΥΣΕΩΝ ΚΑΙ ΜΕΤΑΡΡΥΘΜΙΣΩΝ

- Αναλυτικός Προγραμματισμός επενδύσεων και μεταρρυθμίσεων, που περιλαμβάνει
 - Εξειδίκευση του προγραμματισμού που περιλήφθηκε στο ΣΑΑ σε επιμέρους έργα και χρονικά, προσδιορισμός και χρονοπρογραμματισμός ενδιάμεσων σταδίων υλοποίησης
 - Επικαιροποίηση αρχείου κινδύνων και θεμάτων προς επίλυση
- Επικύρωση αναλυτικού προγραμματισμού των επενδύσεων / μεταρρυθμίσεων από την Συντονιστική Αρχή ή τον αρμόδιο ΦΠ.
- Δημιουργία και εξαγωγή εντύπου της Δέσμευσης Προγραμματισμού.

ΠΑΡΑΚΟΛΟΥΘΗΣΗ ΕΠΕΝΔΥΣΕΩΝ, ΜΕΤΑΡΡΥΘΜΙΣΩΝ ΚΑΙ ΣΑΑ

- Παρακολούθηση προόδου υλοποίησης επενδύσεων και μεταρρυθμίσεων του ΣΑΑ, που περιλαμβάνει:
 - Παρακολούθηση επίτευξης στόχων, οροσήμων και ενδιάμεσων σταδίων (συμπλήρωση, υποβολή και επικύρωση Εντύπου Ενημέρωσης Προόδου από τους ΦΥ και επικύρωση του από την ΣΑ και ή τους αρμόδιους ΦΠ)

- Καταχώριση στοιχείων συμβάσεων και συμφωνιών, και συγκεκριμένα αναδόχων, υπεργολάβων, τελικών αποδεκτών ενισχύσεων και πραγματικών δικαιούχων
- Ειδικά για τα Έργα ΔΣ, επισύναψη πιστοποιητικών ΑΑΔΣ, εφόσον απαιτείται
- Παρακολούθηση αρχείου κινδύνων και θεμάτων προς επίλυση
- Εξαγωγή αναφορών για σκοπούς παρακολούθησης εκ μέρους της ΣΑ (για το σύνολο των επενδύσεων και μεταρρυθμίσεων του ΣΑΑ) και των ΦΠ (για τις επενδύσεις και μεταρρυθμίσεις ευθύνης τους), όπως:
 - Αναφορές προόδου επίτευξης στόχων και οροσήμων του ΣΑΑ για σκοπούς πληρωμών (για ΣΑ)
 - Αναφορές προόδου επίτευξης στόχων και οροσήμων του ΣΑΑ για σκοπούς παρακολούθησης της Επιχειρησιακής Ρύθμισης (για ΣΑ)
 - Αναφορές προόδου επίτευξης στόχων και οροσήμων και ενδιάμεσων σταδίων του ΣΑΑ (για ΣΑ και ΦΠ)
 - Αναφορές Εποπτείας ΦΠ και ΦΥ ως προς την τήρηση των υποχρεώσεών τους για την παροχή στοιχείων προόδου (για τη ΣΑ: για όλους τους ΦΠ και ΦΥ, για τους ΦΠ: μόνο για τους ΦΥ ευθύνης τους)
 - Κατάλογος Δημοσίων Συμβάσεων για σκοπούς επαλήθευσης της τήρησης των υποχρεώσεων των ΦΥ για λήψη πιστοποιητικών συμβατότητας με τη νομοθεσία ΔΣ (για ΣΑ και ΦΠ)

ΕΛΕΓΧΟΙ

- Στοιχεία ελεγκτικών ενεργειών ανεξάρτητου εσωτερικού ελέγχου (internal audit) και ελέγχου επαλήθευσης επίτευξης στόχων και οροσήμων (ΥΕΕ) και αποτελεσμάτων τους
- Στοιχεία ελεγκτικών ενεργειών εξωτερικού ελέγχου (ΕΥ – external audit) και αποτελεσμάτων τους.
- Στοιχεία ενεργειών που πραγματοποιούνται για τη διερεύνηση περιπτώσεων παρατυπιών με υπόνοια απάτης, διαφθοράς ή σύγκρουσης συμφερόντων και των αποτελεσμάτων τους.

ΥΠΟΒΟΛΗ ΑΙΤΗΣΕΩΝ ΠΛΗΡΩΜΗΣ ΚΑΙ ΕΚΘΕΣΕΩΝ ΠΡΟΟΔΟΥ ΠΡΟΣ ΤΗΝ ΕΕ

- Υποστήριξη υποβολής Αιτήσεων Πληρωμής βάσει προτύπων που θα εκδώσει η ΕΕ
- Υποστήριξη υποβολής της Δήλωσης Διαχείρισης που συνοδεύει κάθε Αίτηση Πληρωμής
- Σύνοψη λογιστικών ελέγχων (Summary of Audits), που συνοδεύει κάθε Δήλωση Διαχείρισης
- Υποστήριξη υποβολής Έκθεσης Προόδου του ΣΑΑ που υποβάλλεται στο πλαίσιο του Ευρωπαϊκού Εξαμήνου βάσει προτύπων που θα εκδώσει η ΕΕ.

4.4 Χρονοδιάγραμμα Υλοποίησης

Η ανάπτυξη του ΠΣΠ αποτελεί επένδυση που έχει περιληφθεί, ανάμεσα σε άλλες, προς χρηματοδότηση στο πλαίσιο του ΣΑΑ.

Το ενδεικτικό χρονοδιάγραμμα της παρέμβασης, όπως περιλαμβάνεται στο ΣΑΑ, φαίνεται στον ακόλουθο πίνακα, όπου αναγράφεται το εκτιμώμενο ημερολογιακό τρίμηνο ολοκλήρωσης κάθε επιμέρους ενέργειας που απαιτείται από τον σχεδιασμό μέχρι την ολοκλήρωση του συστήματος:

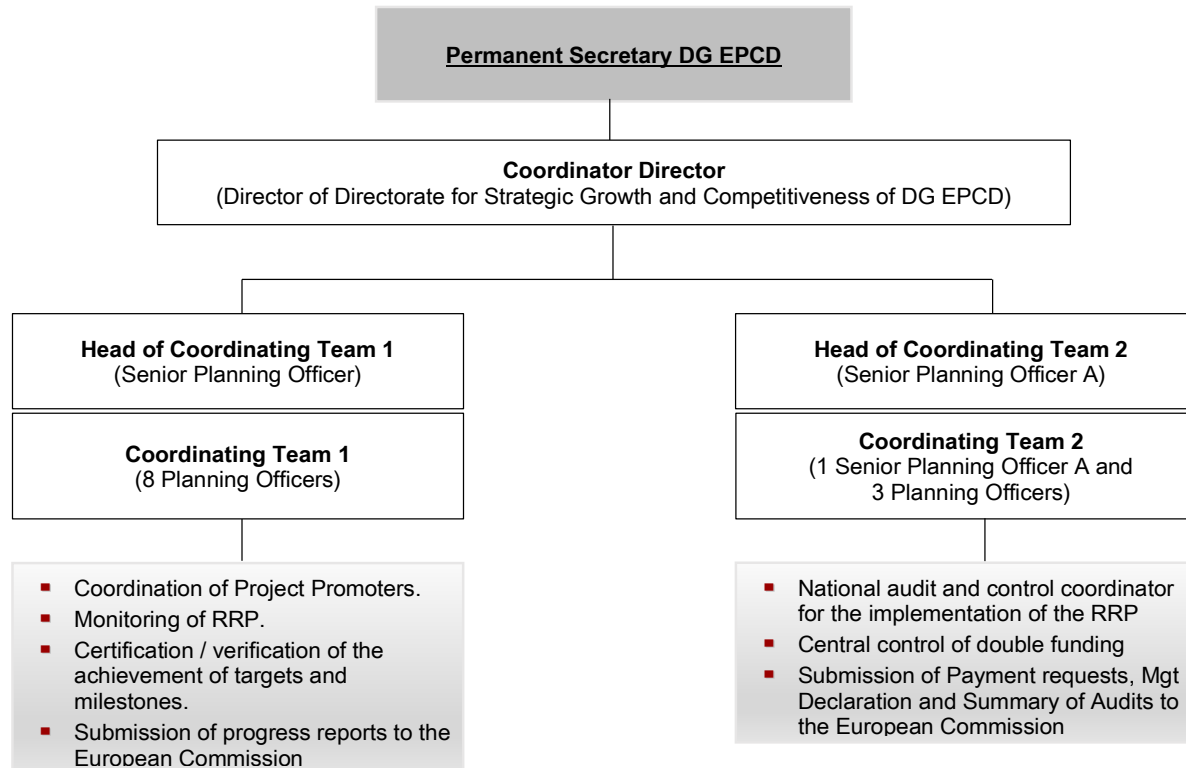
Contract Signature	Q3 2021
System analysis and design, architecture implementation	Q4 2021
Development and acceptance tests	Q1 2022
Insertion of core data / Training / Documentation	Q2 2022
Pilot operation, insertion of progress data, completion of interface with the Treasury ERP, and start of production operation	Q2 2022
Production operation support completed, fine-tuning and optimization of the system and features enhancement such as development of additional reports, interfaces with third party systems, etc.	Q2 2023

Το Σύστημα θα πρέπει επιπρόσθετα να περιλαμβάνει ικανοποιητική περίοδο συντήρησης, καθώς και πρόβλεψη για τυχόν επιπρόσθετες εργασίες ανάπτυξης που θα χρειαστούν για τη συμμόρφωση σε τυχόν νέες απαιτήσεις ή εξειδικεύσεις απαιτήσεων της ΕΕ που θα προκύψουν στο μέλλον μέχρι την ολοκλήρωση της περιόδου εφαρμογής της στήριξης από τον ΜΑΑ.

Παράρτημα Ι – Οργανογράμματα

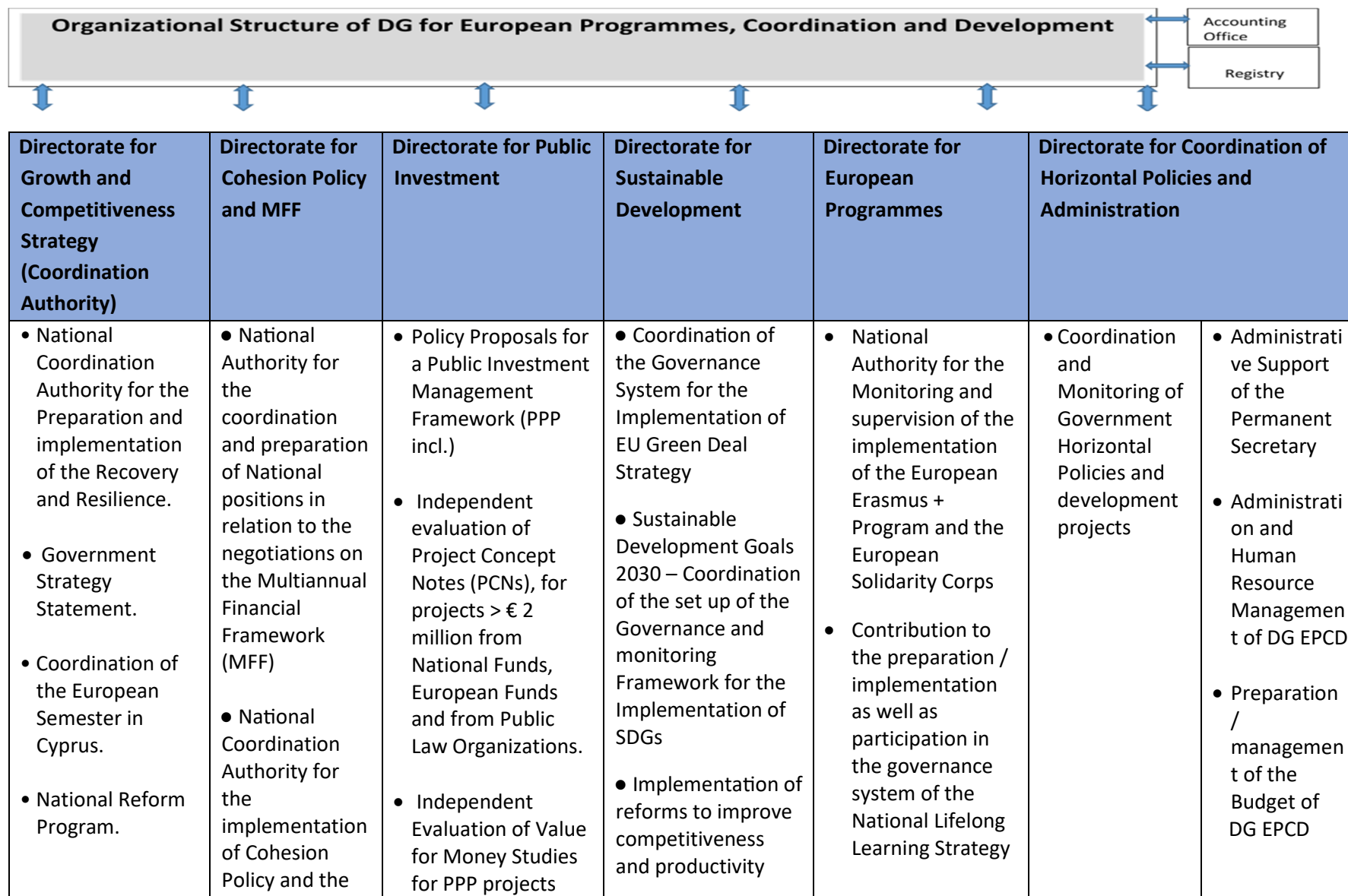
1α. Συντονιστική Αρχή

ORGANISATION CHART OF COORDINATING AUTHORITY*



* Provisional

1b. DG EPCD



<ul style="list-style-type: none"> • Support to the Economy and Competitiveness Council, including on the strategy for sustainable long-term growth. • Coordination and prioritization of Cyprus Government requests for technical support through the European Commission's DG Reform (SRSP and TSI). 	<p>European Structural and Investment Funds in Cyprus</p> <ul style="list-style-type: none"> • Coordination and Preparation of Strategic and Program Documents for the use of Cohesion Policy resources • Managing Authority for the Cohesion Policy Funds and the European Maritime and Fisheries Fund • Cyprus Energy Fund of Funds 	<ul style="list-style-type: none"> • Independent evaluation of Feasibility Studies for projects > € 15 million • Training of government staff in the new investment project evaluation guidelines • National Coordinator for the European PANORAMED Program 		<ul style="list-style-type: none"> • National Authority and National Contact Point for the European Territorial Cooperation • National Contact Point for the Programming and Monitoring the Implementation of EEA, Norway Financial Mechanisms and Swiss Contribution • Promotion of Economic Agreements with third countries. • Promoting the participation in the Competitive European Programs • EU Affairs Unit (coordinated by General Secretariat of European Affairs) 	<ul style="list-style-type: none"> • Technical support for the preparation of Tenders • Health and Safety • Preparation / Monitoring of the Strategic Plan of DG EPCD • Information/ Web page
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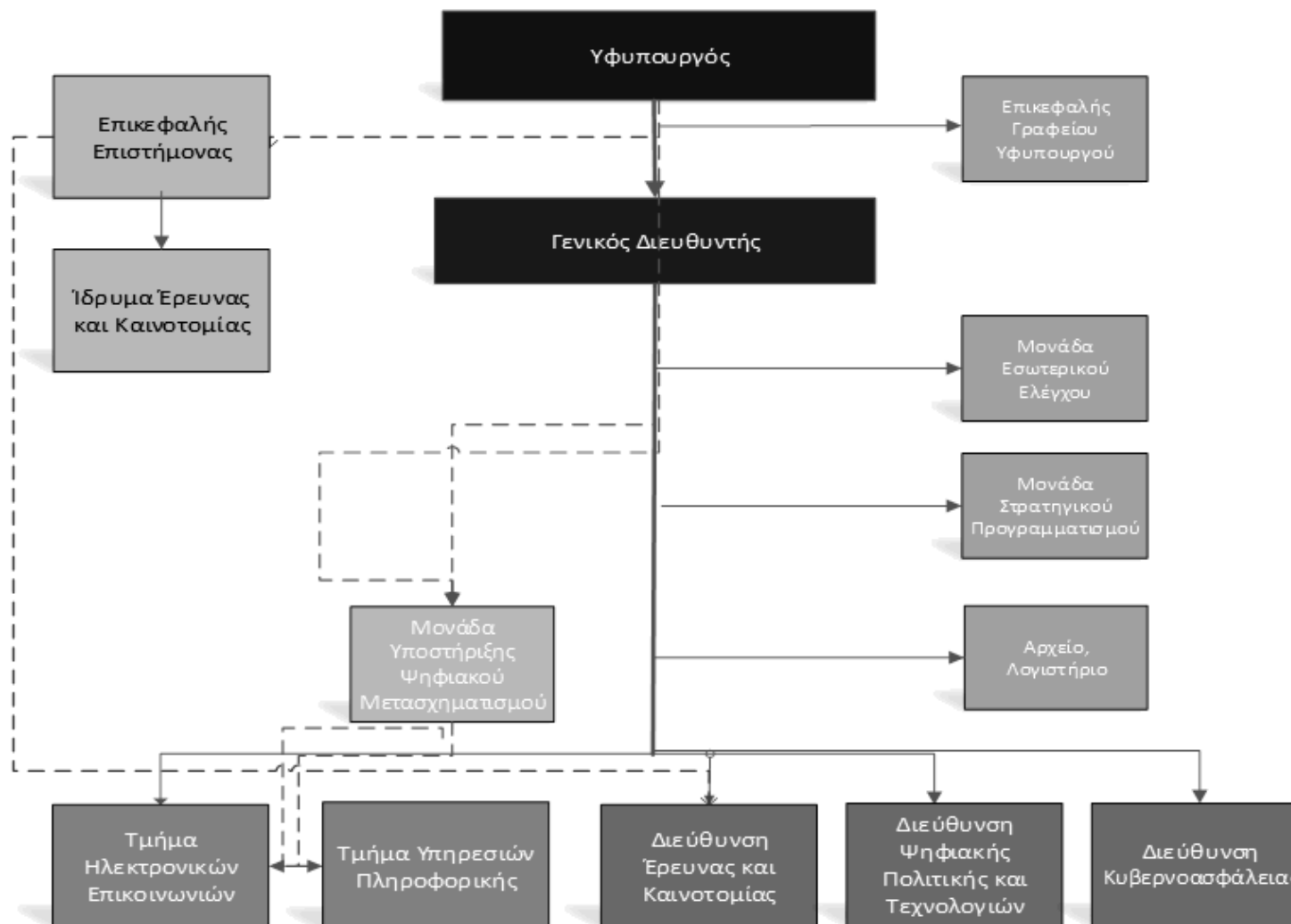
1c. Administrative Capacity of the Coordinating Authority for Resilience and Recovery Plan

Name	Title	Year of assumption of current position	Expertise
Theodosios A. Tsiolas	Permanent Secretary /Directorate General for European Programmes, Coordination and Development	2019	<ul style="list-style-type: none"> - <i>Bachelor of Arts in Accounting and Finance with Computing, University of Kent, United Kingdom (1993 until 1996).</i> - <i>Master in Business Administration in Human Resources (10/2016), Cardiff Metropolitan University.</i> - Member of the Institute of Chartered Accountants in England and Wales. - Member of the Institute of Certified Public Accountants of Cyprus. - Accountant/auditor - Pricewaterhousecoopers (PWC) August 1996. - Treasury of the Republic - Accountant Officer (2002) → Senior Accountant/ Head of the Public Procurement Department (October 2007-October 2010). - Acting Director, Health Services, Ministry of Health, May 2011 -2013. - Secretary of the Council of Ministers (March 2013-until present). - Acting Director, Health Services, Ministry of Health, in addition to the post of the Secretary of the Council of Ministers (November 2013 – October 2014) - District Officer (March 2017)/ placed, by the Ministry of Interior, to the Kyrenia District Administration. - Permanent Secretary of the Directorate General for European Programmes, Coordination and Development (October 2019 until present) in addition to the post of the Secretary of the Council of Ministers.

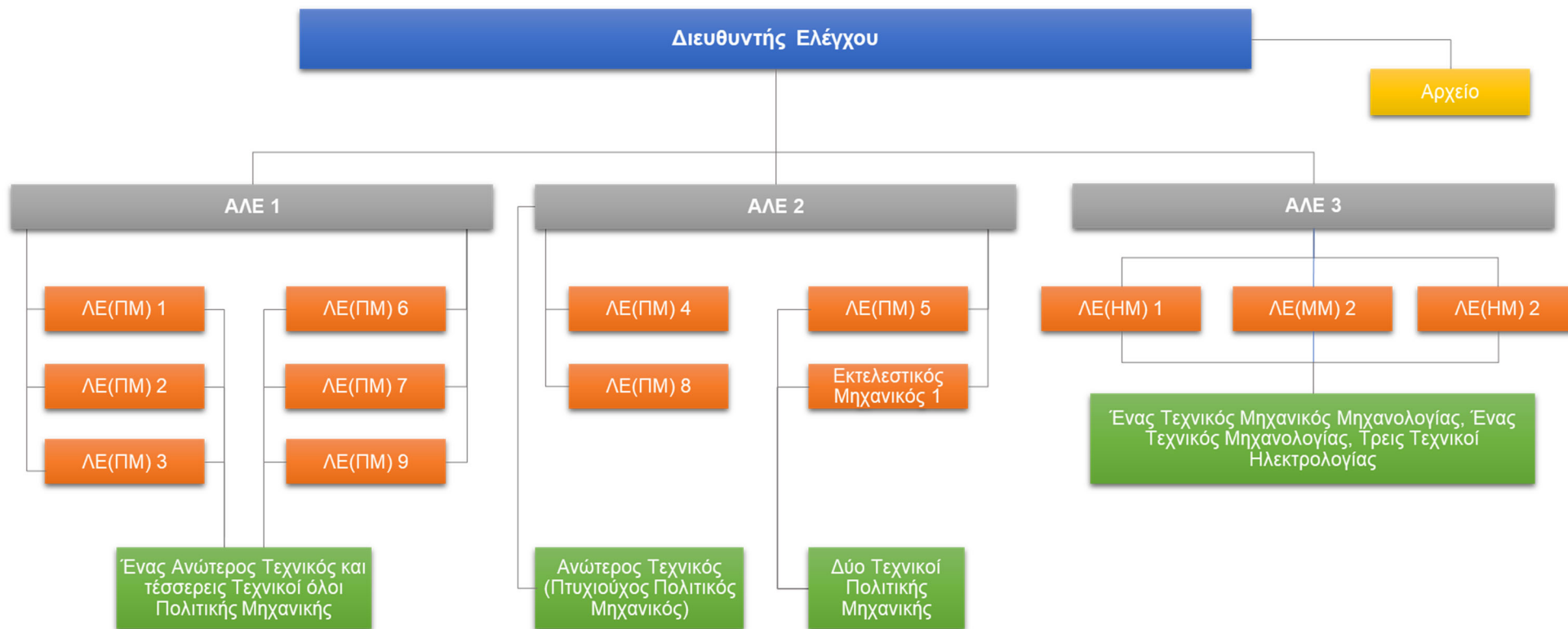
Marina Jensen	Director of Strategic Growth and Competitiveness Directorate / Coordinator Director of CA	1997	<ul style="list-style-type: none"> - <i>BSc Honours in Economics (Mathematical Economics and Econometrics) – London School of Economics and Political Science.</i> - <i>MSc in Economics – London School of Economics and Political Science.</i> <p>Current Tasks/Responsibilities</p> <ul style="list-style-type: none"> - Coordination of European Semester for Cyprus. - Preparation of the National Reform Program. - Head of the Cyprus representation in the EU Economic Policy Committee. - Preparation of the Government Strategy Statement setting out the priorities for the Government budget. - Monitoring of competitiveness indicators. - Supporting the work of the Cyprus Economy and Competitiveness Council. - Coordination of the EU Technical Assistance to Cyprus - Coordination of the preparation of the Recovery and Sustainability Plan. - National Coordination Authority for the Implementation of the Recovery and Resilience Fund. <p>Previous experience</p> <ul style="list-style-type: none"> - Macroeconomic policy, international economy, International trade policy. - Development of an econometric model for the Cypriot economy. - Social Accounting Matrix for Cyprus and relevant general equilibrium model in cooperation with the World Bank. - Foreign investment policy. - Competitiveness. - Policies in the fields of education, health, transport, telecommunications, industry, energy, tourism. - Supervision of the Directorate for Economic Relations with the EU.
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			<ul style="list-style-type: none"> - Participation in the Task Force for the Accession of Cyprus to the EU and inter-ministerial coordination for the preparation of the Cyprus negotiating positions and the adoption of the acquis. - Management of pre-accession assistance. - Promoting participation in EU competitive programs. - Negotiation for the allocation of funds in Cyprus under the Multiannual Financial Framework of the EU for the period 2004-2007 and 2007-2014. - Development of management structures, preparation of program documents and promotion of resource absorption during the first period of Cyprus' participation in the Structural Funds and Cohesion Fund. - Coordination of Single Internal Market issues. - Responsible for the Multiannual Financial Framework dossier for the period 2007-2014 at EU level, during the Cypriot Presidency of the Council of the EU. - Coordination of issues related to the Economic Adjustment Program for Cyprus (Memorandum). - Head of the Administrative Reform Unit. - Supervision of the work for the development and implementation of the Action Plan for the Development and promotion of investments, entrepreneurship, exports, competitiveness, elaboration of a new strategy for tourism. - Coordination in relation to the implementation of the United Nations 2030 Sustainable Development Goals. - Member of the ad hoc Committee for the preparation for the EU, in the framework of the settlement of the Cyprus problem.
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2. Υφυπουργείο Έρευνας, Καινοτομίας και Ψηφιακής Πολιτικής (Φορέας Παρακολούθησης)



3. Διεύθυνση Ελέγχου του Υπουργείου Μεταφορών, Επικοινωνιών και Έργων (Φορέας Παρακολούθησης)



3α. Αναλυτικά προσόντα Λειτουργών Διεύθυνσης Ελέγχου Υπουργείου Μεταφορών, Επικοινωνιών και Έργων

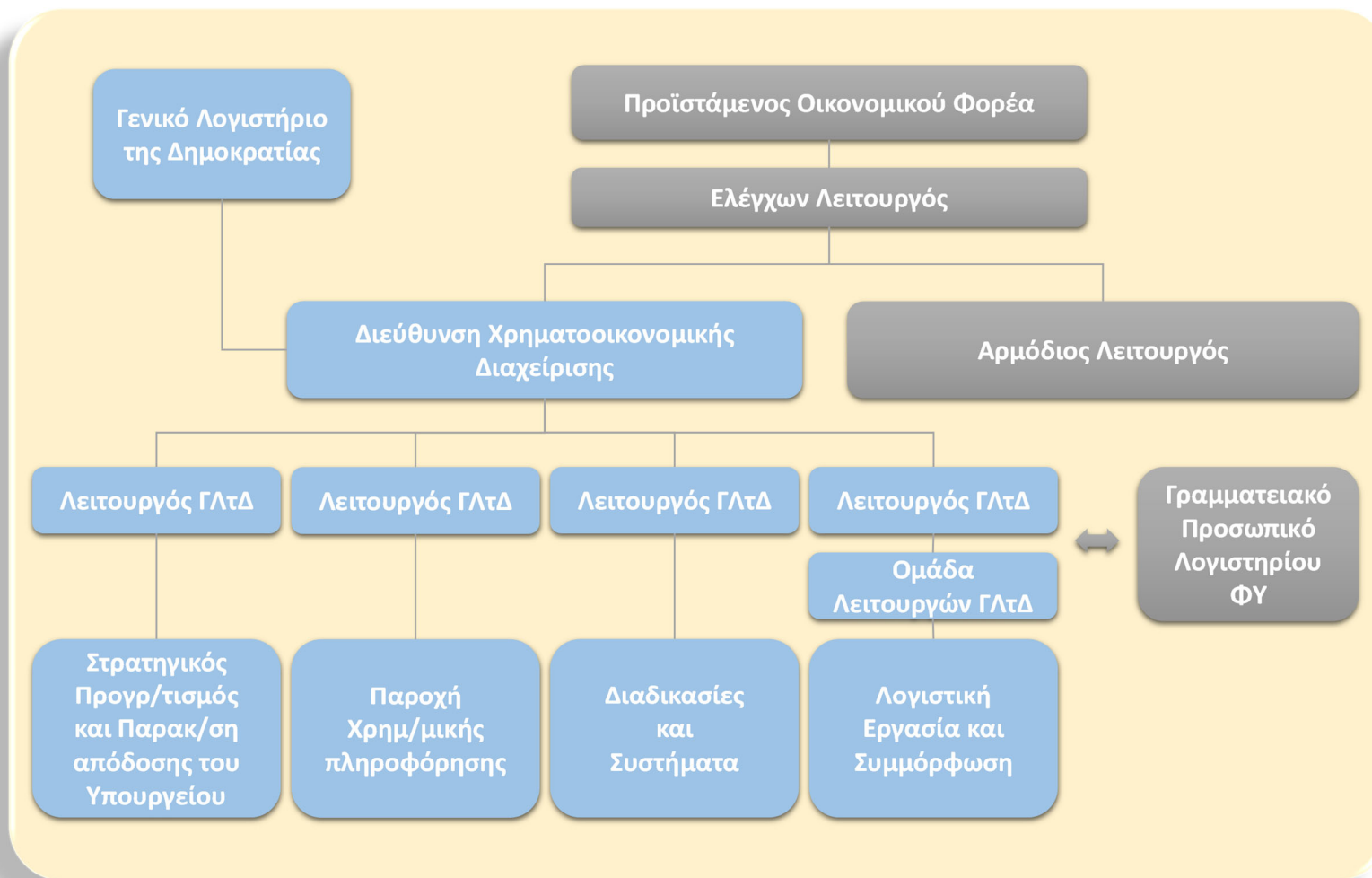
Οι Ανώτεροι Λειτουργοί Ελέγχου (ΑΛΕ) 1 και 2 είναι πτυχιούχοι πολιτικοί μηχανικοί, η ΑΛΕ 2 είναι Ανώτερη Εκτελεστικός Μηχανικός και ο Ανώτερος (ΑΛΕ) 3 είναι πτυχιούχος Μηχανολόγος Μηχανικός.

Όλοι οι Λειτουργοί Ελέγχου Πολιτικής Μηχανικής ΛΕ (ΠΜ) είναι πτυχιούχοι Πολιτικοί Μηχανικοί, οι ΛΕ(ΠΜ)1, 2 και ΛΕ(ΗΜ)1 (Λειτουργός Ελέγχου πτυχιούχος Ηλεκτρολόγος Μηχανικός) είναι μόνιμοι, οι ΛΕ(ΠΜ)3,4,5, ΛΕ(ΜΜ)2 (Λειτουργός Ελέγχου πτυχιούχος Μηχανολόγος Μηχανικός) και ΛΕ(ΗΜ)2 (Λειτουργός Ελέγχου πτυχιούχος Ηλεκτρολόγος Μηχανικός) είναι έκτακτοι αορίστου χρόνου, οι ΛΕ(ΠΜ) 6,7,9 είναι έκτακτοι ορισμένου χρόνου αποκλειστικά για συγχρηματοδοτούμενα έργα, ο ΛΕ(ΠΜ)8 είναι μόνιμος Εκτελεστικός Μηχανικός με απόσπαση από το Τμήμα Δημοσίων Έργων όπως και η Εκτελεστικός Μηχανικός 1.

Οι δύο Ανώτεροι Τεχνικοί Πολιτικής Μηχανικής είναι μόνιμοι με απόσπαση από το ΤΔΕ, οι δύο Τεχνικοί Πολιτικής Μηχανικής είναι έκτακτοι αορίστου χρόνου και οι υπόλοιποι τρεις είναι έκτακτοι τεχνικοί πολιτικής μηχανικής ορισμένου χρόνου αποκλειστικά για τα συγχρηματοδοτούμενα έργα.

Ο ένας Τεχνικός Μηχανικός Μηχανολογίας είναι με απόσπαση από το Τμήμα Ηλεκτρομηχανολογικών Υπηρεσιών, ο ένας Τεχνικός Μηχανολογίας και ένας Τεχνικός Ηλεκτρολογίας είναι έκτακτοι αορίστου χρόνου και οι δυο Τεχνικοί Ηλεκτρολογίας είναι έκτακτοι ορισμένου χρόνου αποκλειστικά για τα συγχρηματοδοτούμενα έργα. Όλοι οι τεχνικοί είναι κάτοχοι πτυχίου ΑΤΙ ή και Πτυχίου Πανεπιστημίου, χωρίς αυτό δηλαδή το Πτυχίο Πανεπιστημίου, να είναι απαραίτητο, για τη θέση που κατέχουν.

4. Ελεγκτικός Μηχανισμός ΦΥ



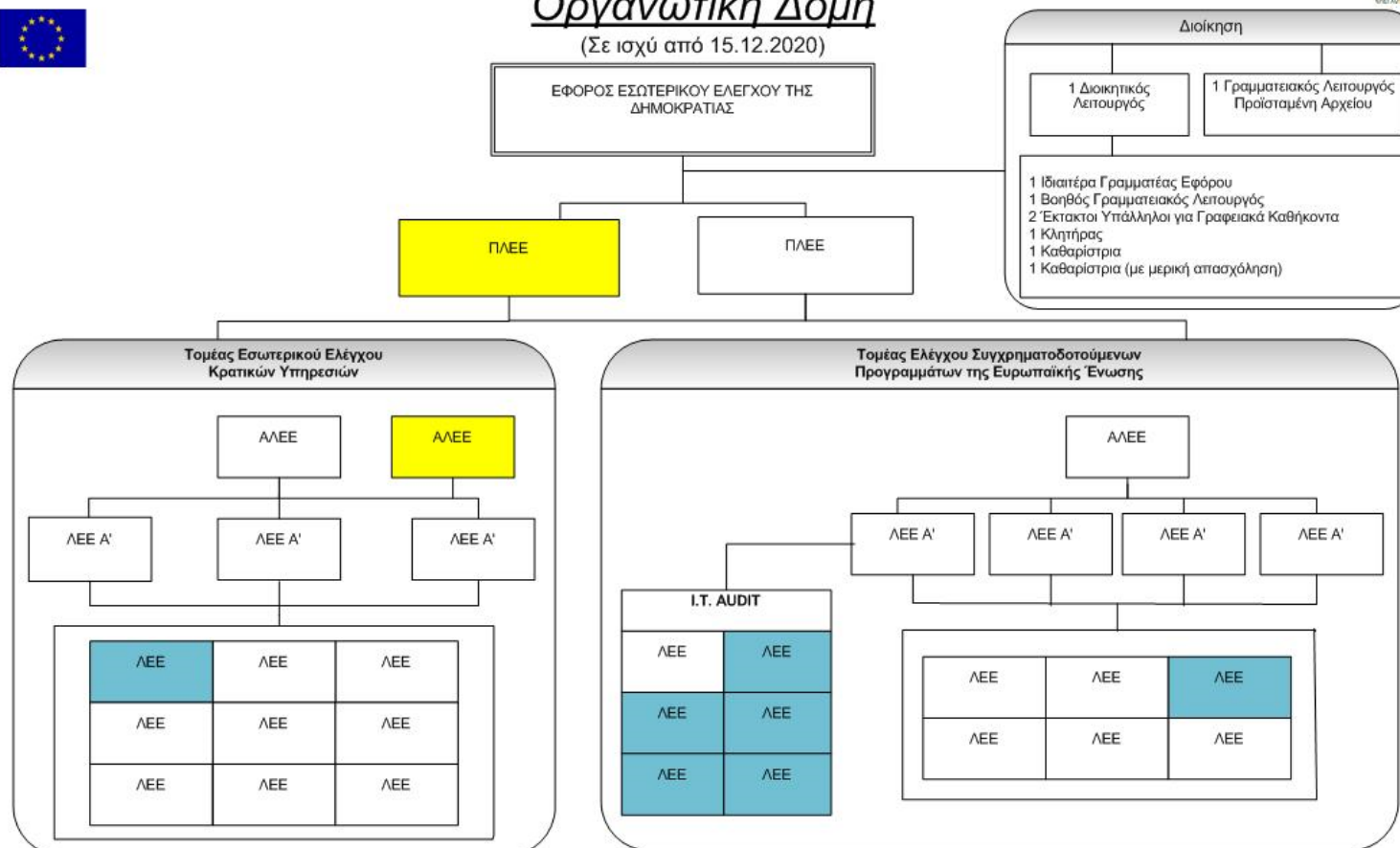
5. Υπηρεσία Εσωτερικού Ελέγχου




ΥΠΗΡΕΣΙΑ ΕΣΩΤΕΡΙΚΟΥ ΕΛΕΓΧΟΥ ΤΗΣ ΔΗΜΟΚΡΑΤΙΑΣ

Οργανωτική Δομή

(Σε ισχύ από 15.12.2020)



 Στους κατόχους των θέσεων έχουν ανατεθεί καθήκοντα Βοηθού Εφόρου Φορολογίας

 Κενή Θέση

5. Internal Audit Service

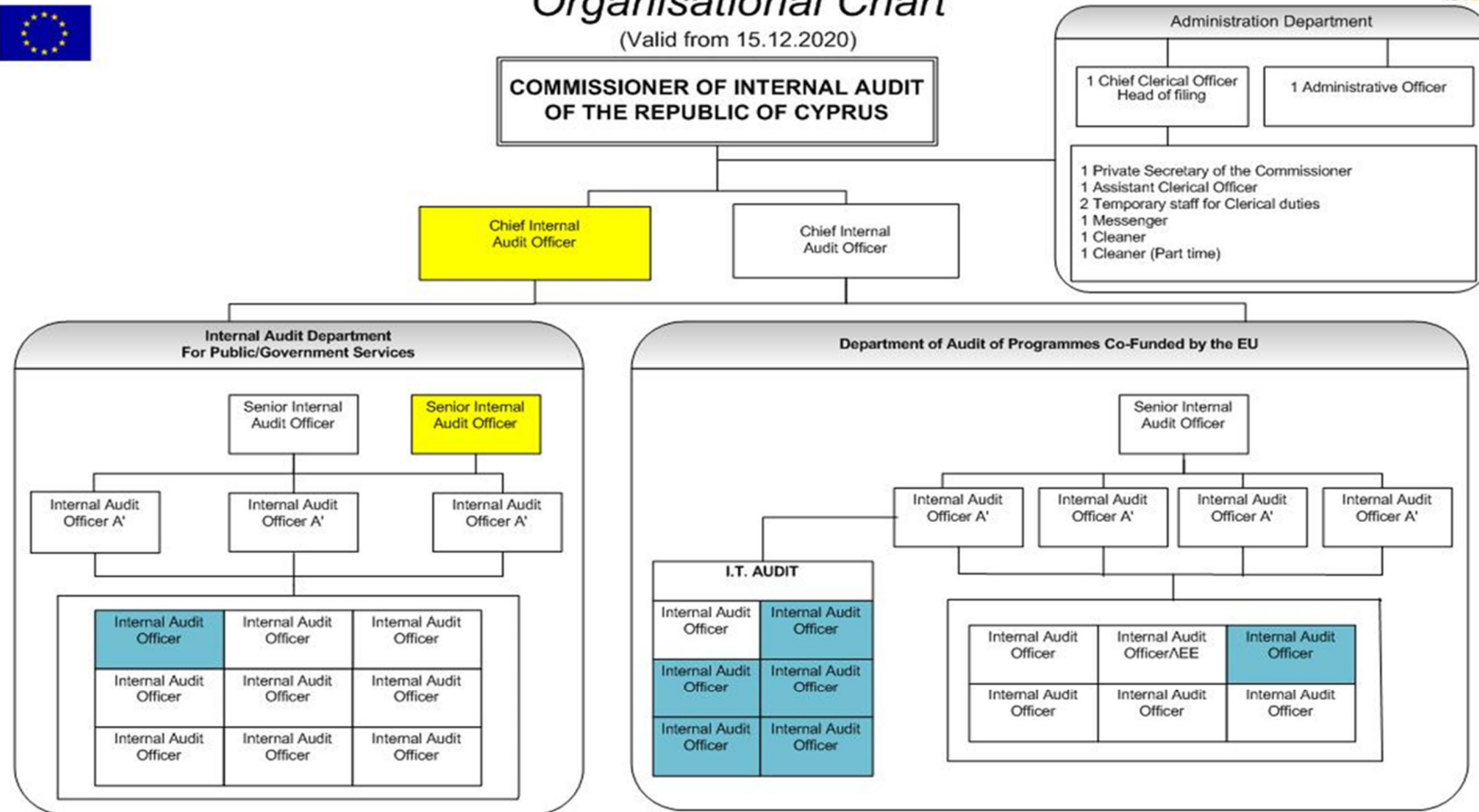


INTERNAL AUDIT SERVICE OF THE REPUBLIC OF CYPRUS



Organisational Chart

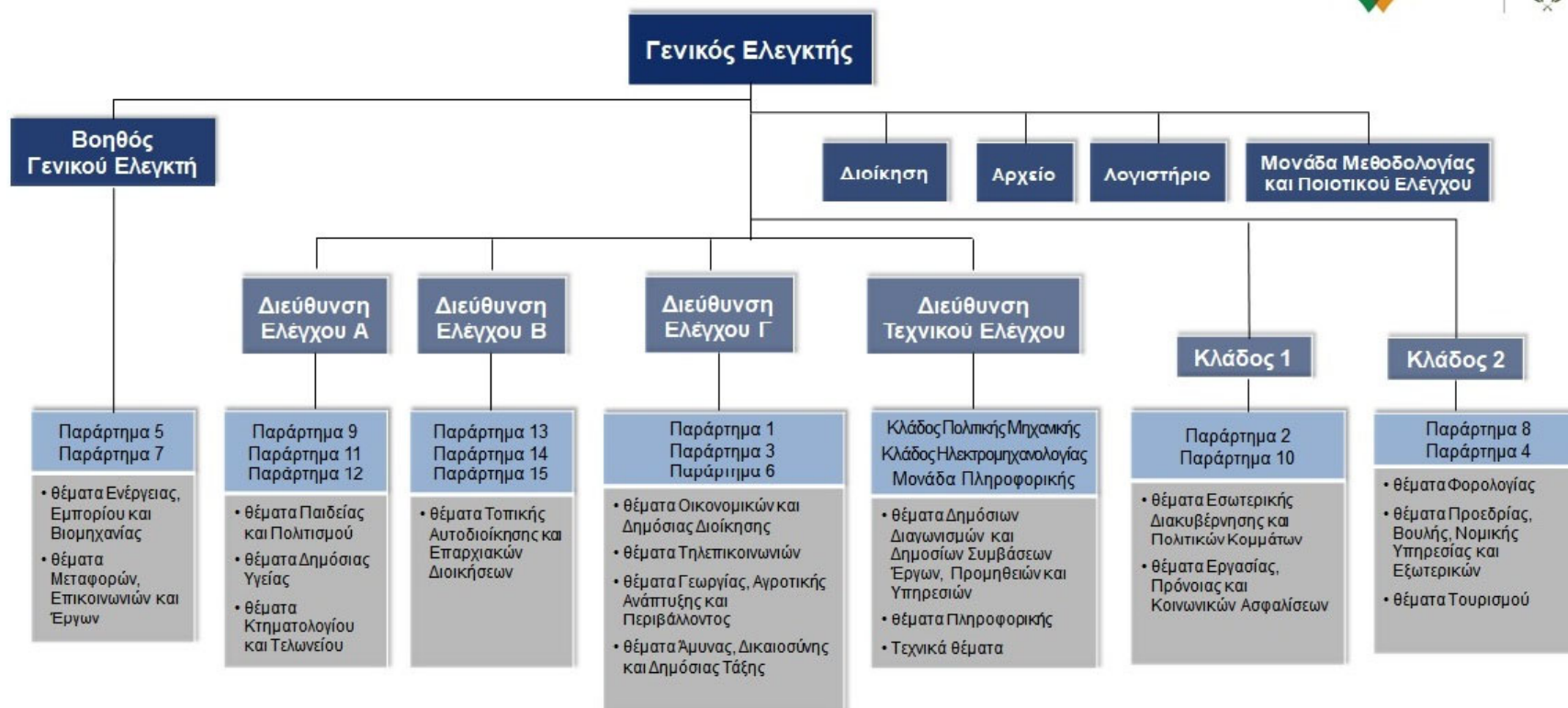
(Valid from 15.12.2020)



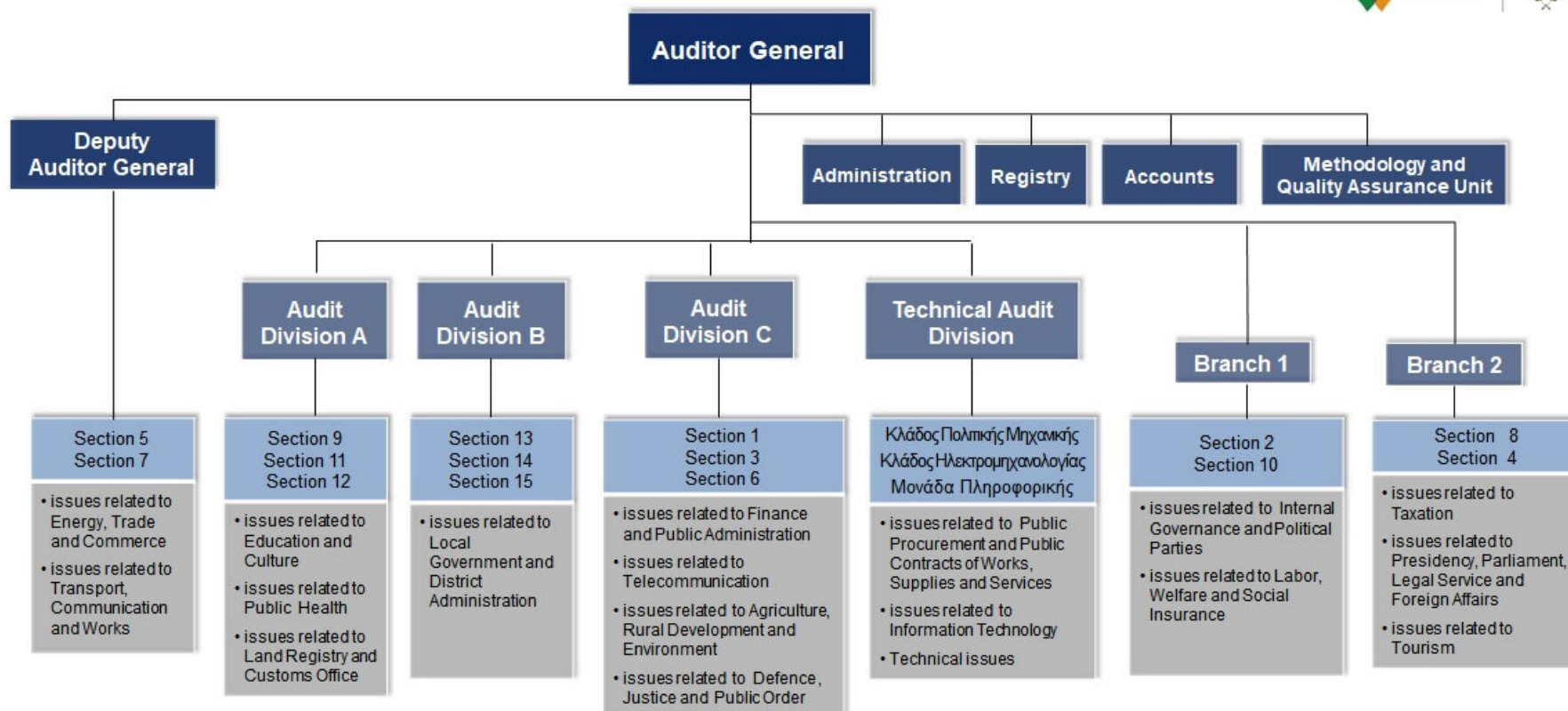
The holders of these positions have been appointed as Deputy Commissioners of Taxation

Empty position

6. Ελεγκτική Υπηρεσία



6. Audit Office



7. THE COSTING COORDINATOR

FUNCTIONS OF THE VERIFICATION AND CERTIFICATION DIRECTORATE OF THE TREASURY OF THE REPUBLIC



Παράρτημα II – Κάλυψη Απαιτήσεων Κανονισμού (ΕΕ) 2021/241

ΆΡΘΡΟ ΚΑΝΟΝΙΣΜΟΥ	ΣΥΝΟΨΗ ΑΠΑΙΤΗΣΗΣ	ΚΕΦΑΛΑΙΟ ΣΠΕ ΣΑΑ
18(4)(P) ΚΑΙ 19(3)(H)	Ρυθμίσεις για την αποτελεσματική παρακολούθηση και υλοποίηση του ΣΑΑ	3.1, 3.2
18(4)(R) ΚΑΙ 19(3)(J), 22(1), 22(2)(A), 22(2)(B), ANNEX V, 2.10, ΣΤ. 2B & 3	Σύστημα για την πρόληψη, τον εντοπισμό και την αντιμετώπιση της διαφθοράς, της απάτης και των συγκρούσεων συμφερόντων και ρυθμίσεις που αποσκοπούν στην αποφυγή της διπλής χρηματοδότησης από τον ΜΑΑ και άλλα προγράμματα της Ένωσης	3.3, 3.4
22(2)(C)	Να εξασφαλίζουν ότι το αίτημα καταβολής συνοδεύεται από: i) διαχειριστική δήλωση και ii) σύνοψη των λογιστικών ελέγχων που διενεργήθηκαν, συμπεριλαμβανομένων των αδυναμιών που εντοπίστηκαν και των διορθωτικών μέτρων που ελήφθησαν	3.5.1
22(2)(D) ΚΑΙ ANNEX V, 2.10, ΣΤ. 2A	Συλλογή και εξασφάλιση πρόσβασης στις ακόλουθες τυποποιημένες κατηγορίες δεδομένων: i) όνομα του τελικού αποδέκτη των κονδυλίων, ii) όνομα του αναδόχου και του υπεργολάβου, στην περίπτωση που ο τελικός αποδέκτης των κονδυλίων είναι αναθέτουσα αρχή, iii) όνομα επώνυμο και ημερομηνία γέννησης του πραγματικού δικαιούχου (ή των πραγματικών δικαιούχων) του αποδέκτη των κονδυλίων ή του αναδόχου, iv) κατάλογο μέτρων με αναφορά του ποσού των κονδυλίων που πληρώθηκαν από τον μηχανισμό και από άλλα ταμεία της Ένωσης	3.1.5, 3.2.2
22(2)(E)	Εξουσιοδότηση Επιτροπής, OLAF, Ελεγκτικού Συνεδρίου και Ευρωπαϊκής Εισαγγελίας να ασκούν τα καθήκοντά τους και να επιβάλλουν υποχρεώσεις σε όλους τους τελικούς αποδέκτες κονδυλίων	3.1.4
22(2)(F)	Τήρηση αρχείων σύμφωνα με το άρθρο 132 του δημοσιονομικού κανονισμού	3.1.4
ANNEX V, 2.8, ΣΤ. 1 & 3	Διασφάλιση αποτελεσματικής παρακολούθησης και υλοποίησης του ΣΑΑ (δομή και οργάνωση)	0
ANNEX V, 2.10, ΣΤ. 1 & 4	Άρτιες διαδικασίες και δομές, με σαφείς παράγοντες (φορείς), ρόλους και αρμοδιότητες για την εκτέλεση καθηκόντων εσωτερικού ελέγχου. Κατάλληλος διαχωρισμός των σχετικών καθηκόντων, νομική εξουσία και διοικητική ικανότητα αρμόδιων φορέων	0, 3.3, 3.4
27	Υποβολή Εκθέσεων Προόδου	3.5.2

Παράρτημα ΙΙΙ – Κατάλογος Φορέων Υλοποίησης παρεμβάσεων ΣΑΑ

(επισυνάπτεται)

Παράρτημα ΙV – Υποδείγματα Εντύπων και Αναφορών

(επισυνάπτονται)

Παράρτημα V – Νόμος που Προνοεί Περί της Δημοσιονομικής Ευθύνης και του Δημοσιονομικού Πλαισίου (Ν. 20(Ι)/2014)

(επισυνάπτεται)

Κύπρος—το αύριο

ΣΧΕΔΙΟ ΑΝΑΚΑΜΨΗΣ ΚΑΙ ΑΝΘΕΚΤΙΚΟΤΗΤΑΣ
