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CORRIGENDUM

This document corrects document SWD(2021) 155 final of 17.6.2021

Correction of some errors on page 2.

The text should read as follows:

COMMISSION STAFF WORKING DOCUMENT

Analysis of the recovery and resilience plan of Greece

Accompanying the document

Proposal for a COUNCIL IMPLEMENTING DECISION

on the approval of the assessment of the recovery and resilience plan for Greece

{COM(2021) 328 final}

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1. EXECUTIVE SUMMARY

Greece has been severely affected by the coronavirus pandemic, as the structure of its economy with a large share of tourism and transport services sector, and the high share of micro enterprises have made it particularly vulnerable to the shocks triggered by travel restrictions and social distancing measures. At the end of 2019, Greece's recovery from the decade-long financial crisis was taking hold, with business and consumer confidence at pre-2010 levels, and disposable income, investment and consumption steadily increasing. The positive trends that had started to materialise as a result of the reforms implemented under the macroeconomic adjustment programmes and its aftermath were largely interrupted by the outbreak of the pandemic, which put the challenges related to Greece's high public debt, incomplete external rebalancing and high ratio of non-performing loans to the spotlight again. It also highlighted the importance of addressing the large investment gap, social and economic inequality and high unemployment, especially of women and young people.

Greece submitted its Recovery and Resilience Plan, named "Greece 2.0", on 27 April 2021. The cost of all projects in the plan amounts to EUR 31.164 billion, of which EUR 17.770 billion is foreseen to be financed from non-repayable financial support and EUR 12.728 billion from loans up to 2026.

Structured around four pillars and encompassing a well-balanced mix of reforms and investments, the plan aims at addressing the key structural challenges Greece faces and pursues the objective of the Recovery and Resilience Facility (RRF) Regulation to promote the Union's economic, social and territorial cohesion. The plan also contributes to effectively addressing all or a significant subset of the country-specific recommendations that were addressed to Greece by the Council in 2019 and 2020, and provides a good balance across the six policy pillars referred to in Article 3 of the RRF Regulation[1]. The plan is also consistent with the challenges and priorities identified in the most recent euro area recommendation[2]. The four pillars of the plan are (i) green transition (EUR 6.2 billion[3]); (ii) digital transition (EUR 2.2 billion); (iii) employment, skills and social cohesion (EUR 5.2 billion); and (iv) private investment and economic and institutional transformation (EUR 4.9 billion), comprising in total 174 measures, of which 68 reforms and 106 investments. These include key investments in energy networks and energy efficiency of buildings, environmental protection and sustainable

[1] Greece submitted its National Reform Programme on 27 April 2021. The information provided in the National Reform Programme is being considered and jointly assessed in this Staff Working Document together with the Recovery and Resilience Plan.

[2] Pending final adoption by the Council, after endorsement by the European Council. The text agreed by the Eurogroup on 16 December 2020 is available at: https://data.consilium.europa.eu/doc/document/ST-14356-2020-INIT/en/pdf.

[3] Figures in this paragraph refer to non-repayable financial support only.

transport, investments in very high capacity networks and connectivity, the digitalisation of the public and the private sectors, education, reskilling and upskilling, active and passive labour market policies, social services, and health care. The plan also promotes private-sector investments through the RRF Loan Facility (EUR 12.7 billion). Investments are flanked by ambitious reforms of the business environment, labour market, education and training, and public administration, including tax administration, public procurement, and justice.

The wide set of investments and reforms is expected to contribute to economic growth and thereby support the correction of the identified macroeconomic imbalances, while promoting a more inclusive and sustainable growth model. The plan is consistent with the Development Plan for the Greek Economy prepared under the steer of the Nobel laureate Professor Pissarides in 2020. The measures presented in the recovery and resilience plan are especially targeted at addressing the large investment gap that has held back growth in Greece in the past decade, while also facilitating the green and digital transitions and the modernisation of the economy, with a view of promoting export-led growth.

The plan projects a rebound of economic growth (+3.6%) in 2021, following the severe downturn in 2020 (-8.2%). Driven by both domestic and foreign demand as well as the supportive stimulus from the Recovery and Resilience Facility, GDP growth is expected to peak at 6.2% in 2022 before decreasing to 4.1% in 2023 and 4.4% in 2024. Unemployment should remain unchanged at 16.3% in 2021, then decline progressively to reach 11.9% in 2024. The budget deficit (9.7% of GDP in 2020) is expected to remain broadly unchanged in 2021, mainly due to the prolongation of the measures meant to address the consequences of the pandemic, and to start improving from 2022.

The plan ensures that the policies monitored under enhanced surveillance[4] continue to be pursued and are substantially reinforced through the support of necessary investments under the recovery and resilience plan. This applies in particular to key areas, such as fiscal structural including the tax administration and public procurement; labour market, social benefits and health care; the financial sector and business environment; and modernisation of the public administration, justice and fight against corruption. Reforms in these areas were essential to the emerging economic recovery in Greece prior to the outbreak of the pandemic and to improvements in underlying fiscal conditions, both of which were helping to improve the confidence of investors and financial markets. Specific commitments given in the Eurogroup in June 2018 will continue to be monitored under enhanced surveillance and provide a basis for the release of additional debt support measures up to mid-2022.

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[4] Enhanced surveillance supports the continuation, completion, and delivery of reforms agreed under the European Stability Mechanism stability support programme (2015-2018). See Articles 2 and 3 of Regulation (EU) No 472/2013 of the European Parliament and the Council of 21 May 2013 on the strengthening of economic and budgetary surveillance of Member States in the euro area experiencing or threatened with serious difficulties with respect to their financial stability, OJ L140, 27.5.2013, p. 1.

The first, green pillar of the plan contributes significantly to the decarbonisation of the Greek energy sector and of the economy overall, and is consistent with the National Energy and Climate plan. Underpinned by the commitment to completely phase out lignite-based electricity production by 2028, with all existing power plants to be closed by 2023, the plan supports investment in energy networks and includes measures to promote energy efficiency and the energy renovation of buildings, reforms of the electricity market, of the licensing process and of the financing of renewable energy. It also includes the revision of urban policy and of spatial and maritime planning, and supports infrastructure for electric vehicles as well as the rehabilitation of land currently used for lignite mining. Finally, the plan covers environmental protection issues, such as waste and wastewater management, which have long been an issue for Greece, and includes an ambitious plan for reforestation, also supporting biodiversity. Together, the measures supporting the climate change objectives account for 37.5% of the Greek plan's total allocation (non-repayable financial support and loans).

The digital transition is supported through measures included in the second pillar, aiming at enhancing connectivity, improving the digitalisation of public administration and businesses, and contributing to the digital transformation of public services and of economic sectors and industrial activities. The plan promotes investment in fibre optic infrastructure in buildings, submarine cables and 5G networks, and promotes the adoption of digital technologies by the SMEs. It also includes important investments in the digitalisation of archives and digitalisation of public services, including the upgrading of the digital infrastructure of the Greek public administration, alongside reforms to simplify and improve public administration processes. Together, the measures supporting the digital transition objectives account for 23.3% of the Greek plan's total allocation (non-repayable financial support and loans).

A comprehensive set of measures presented under the third pillar aims at addressing labour market deficiencies, delivering a structural increase in employment, upgrading the education and training system, improving social cohesion and increasing the resilience and efficiency of the healthcare sector. According to the estimations included in the plan, the implementation of all the measures could lead to 180 000 – 200 000 new permanent jobs, i.e. an increase of around 5% compared to pre-COVID employment levels. Measures aim at modernising the labour market, fostering employment, including for women, and reducing long-term unemployment through hiring incentives, reskilling, and upskilling. Investment in upgrading vocational education and training as well as university education further contribute to human capital building. Social cohesion will be enhanced by improving access to healthcare and social services, and fostering active inclusion, also addressing the challenges identified by the Social Scoreboard, such as expanding access to early childhood education and care for children less than 3 years old. The plan contains a number of measures to promote deinstitutionalization of care for vulnerable children and adolescents, integration of refugees, persons with disabilities and other vulnerable groups, including the Roma, in the labour market. Access to social policies is planned to be improved through the digital transformation of the social security system and increased support for persons with disabilities. The plan envisages significant reforms and investments in the healthcare sector, upgrading the infrastructure of the hospital system and improving several of its operational aspects, while promoting access, efficiency and resilience of the healthcare sector more broadly.

The fourth pillar of the plan combines measures to strengthen public administration, including tax administration and justice, improve the financial system, promote research and innovation, and enhance competitiveness in key sectors, also facilitating private investment. For public administration, measures are geared towards the improvement of administrative capacity, the enhancement of coordination, a better public procurement framework, and the continued modernisation of the public financial management framework. The measures to codify tax legislation and to improve the functioning of the tax administration, also through its digitalisation, will support fiscal sustainability through more effective tax collection. The quality and the efficiency of the justice system will be increased by accelerating and digitalising judicial processes, while upgrading relevant infrastructures. Important measures are also included to strengthen transparency and fight against corruption and illicit trade. A set of financial sector reforms will address private indebtedness and strengthen capital markets. On business environment, measures include tax incentives for private investment targeting the green economy, energy and digitalization of businesses, the promotion of economies of scale and extroversion of enterprises, and the simplification of key administrative processes and improvements in the quality of regulation, particularly in areas such as manufacturing and logistics. The pillar also includes important investments in the sustainable development of key sectors, such as tourism, culture, transport and agriculture. Finally, the RRF Loan Facility aims at addressing the lack of affordable financing for companies, with loans passed on to the private sector through international financial institutions and commercial banks. This could help overcome the significant constraints in providing credit through the Greek banking sector, which suffers from the still high volume of non-performing loans and low profitability.

All measures included in the plan have passed the ex-ante assessment of the "do no significant harm" principle. Greece has conducted an assessment for each measure indicating that the principle is followed. Based on the information provided by the Greek authorities, no measure included in the plan is expected to do significant harm to environmental objectives within the meaning of Article 17 of Regulation (EU) 2020/852.

The implementation of the plan is expected to bring about a lasting significant impact to Greece. It is set to provide a significant contribution to the green transition of the Greek economy and strongly supports the decarbonisation of the energy sector. The quality and the efficiency of the public administration at large, including the justice system and tax administration, will benefit from investments and reforms that introduce structural changes. Enhancing and upgrading the digital tools and services is another essential element, coupled with strengthening the administrative capacity and improving the skills of employees. In addition, the strategic investments in very high capacity networks, emerging technologies and the multi-country projects could help achieving scale, networking, interoperability and cooperation with similar activities in other Member States. Measures to strengthen the functioning of healthcare, education and employment services are expected to improve labour market performance and reduce inequalities, poverty and the risk of social exclusion. Finally, strengthening the national frameworks for the fight against corruption, money laundering and terrorism will also be relevant steps positively affecting all sectors of the economy and the society at large.

The plan defines milestones and targets for each investment and reform. Greece has designated 10 “top investments” and 8 “key reforms” based on value, impact and maturity criteria, while the remaining measures were categorised in 28 groups based on their area of focus and the allocation of responsibilities across ministries. The milestones and targets are sufficiently clear, ambitious and realistic. Their indicators are relevant, as they provide a suitable measure of the actual implementation; acceptable, as they are sufficiently ambitious and their scope reflects the overall objective of the measures; and robust, as they are specific and trackable, facilitating effective verification. The authorities have designed a clear governance structure responsible for the coordination and the monitoring of the plan’s implementation. The structure consists of a central RRF Coordination Agency, designated ministries responsible for the oversight of specific measures, implementation bodies and the Financial Audit Committee whose mission is to safeguard the observance of the principles of sound financial management for programmes co-financed with the EU. The structure is expected to be fully set up in time for the first payment request.

The Technical Support Instrument (TSI) provides expertise in building capacities to implement the plan in a number of areas. These areas are clean energy, digital transformation, state aid, health system reform, non-formal education, customs, financial literacy, as well as for the overall implementation of the plan.

The Greek authorities have presented detailed cost assessments for all investment projects and reforms where costs occur. The cost descriptions and methodologies vary across the plan, also depending on the nature of the projects. A cost analysis was produced for each project, including a brief description of the main characteristics, an overview of the timeline, and a breakdown of the project budget. Greece provided an appropriate level of information, based on which it is possible for the European Commission to assess positively reasonability, plausibility, additionality with EU funding, and how commensurate with expected national economic and social impact the costs are for a large majority of the measures. Cost assessments were also validated by the independent National Productivity Board.

The control and audit system developed by the Greek authorities is coherently designed to meet the RRF requirements. The proposed system is a tailored-made Management and Control System rooted within the RRF Coordination Agency, which has the overall responsibility for the implementation of the plan and constitutes the single point of contact between the Greek authorities and the European Commission. Overall, the solutions identified are adequate to effectively manage the complexity of the plan.

The plan achieves a high degree of coherence and complementarity among its components. This is facilitated by the structure of the plan around four main pillars, which include mutually reinforcing measures. Notably, the inclusion of climate-related and sustainability criteria from the green transition pillar will also enable the deployment of digital technologies and reinforce the impact of the digital pillar. On the other hand, measures such as demand response, which enables consumers to adjust electricity demand during peak periods, are only possible because of investment in digital technologies. The third pillar on employment, skills and social cohesion includes measures ensuring that the costs and benefits of digital and green transitions will be fairly distributed across different parts of the Greek society. To this effect, the third pillar includes measures prioritising sustainable job creation, improvement of the education system and skills, and the provision of high quality and effective health and social care services. Finally, the fourth pillar presents measures for boosting competitiveness and innovation by mobilising private and public investment and setting up institutional frameworks that will be instrumental in supporting the digital and green transition in Greece.

Table 1 Summary of the assessment of the plan under the RRF criteria

(1) Balanced Response	(2) CSRs	(3) Growth, jobs…	(4) DNSH	(5) Green target	(6) Digital target	(7) Lasting impact	(8) Milestones & Targets	(9) Costing	(10) Control Systems	(11) Coherence
A	A	A	A	A	A	A	A	B	A	A

2. RECOVERY AND RESILIENCE CHALLENGES: SCENE-SETTER

2.1. Macroeconomic outlook and developments since the 2020 country report

The macroeconomic scenario underlying the Greek recovery and resilience plan projects a recovery of economic activity to the pre-pandemic levels of 2019 in 2022. According to the plan, GDP is expected to grow by 3.6% in 2021 and 6.2% in 2022, before decreasing to 4.1% in 2023 and 4.4% in 2024. Growth is expected to be driven by domestic demand and the supportive stimulus from the Recovery and Resilience Facility. Net trade is forecast to recover ahead of the rebound in the tourism sector, especially in 2022, also improving the current account deficit. Inflation is expected to increase but to stay close to 0% in 2021 before increasing to 0.7% in 2022.

The macroeconomic scenario under the plan foresees unemployment to remain unchanged at 16.3% in 2021, and to follow a downward trajectory towards 11.9% in 2024. Employment is forecast to grow marginally in 2021, due to a gradual return of hiring in the tourism industry, while the services sector is still constrained by the containment measures. Long-term unemployment remains the highest in the EU, however, risks of a further increase are expected to remain contained as employment support measures prevented an increase in unemployment during the pandemic. Poverty is expected to slowly ease from the peak recorded during the pandemic. The share of people at risk of poverty or social exclusion is among the highest in the EU (30% in 2019), albeit below its peak of 36% in 2014. Vulnerable groups are more likely to be at risk of poverty or social exclusion, including people with migrant background and low-skilled workers. The pandemic is expected to have further accentuated those gaps. The position of those struggling to find employment before the pandemic, low-skilled, young and women, is expected to deteriorate when the employment support measures are discontinued. Further, it remains uncertain whether the steady improvement seen before the pandemic will resume in the following years. Greece remains a 'moderately equal' society with respect to the fairness of income distribution and income inequality is higher compared to the euro area average.

Greece is experiencing excessive macroeconomic imbalances. Vulnerabilities relate to high government debt, incomplete external rebalancing and high non-performing loans, in a context of high unemployment and low potential growth. The Greek economy's potential growth has been in negative territory for over a decade, primarily due to the economy's low total factor productivity and diminished capital stock. Since 2012, Greece has significantly narrowed its current account deficit, however the coronavirus pandemic has widened the country's external imbalances again. The pandemic has also put additional pressure on the non-performing loan ratios for nonfinancial corporations and households. Support measures, including loan payment moratoria, provided a temporary cushion and while the initial signs following the expiry of the moratoria suggest that the adverse impact on asset quality may be contained, downside risks remain as the state support programmes are gradually phased out. In the context of the 2021

European Semester spring package, the European Commission adopted earlier in June an in-depth review for Greece, in accordance with the respective regulation on the prevention and correction of macroeconomic imbalances in Greece[5].

The Commission 2021 spring forecast expects real GDP in Greece to grow at 4.1% and 6.0% in 2021 and 2022, respectively. Similar to the scenario underlying the plan, the Commission considers domestic demand as the main growth driver behind the recovery. The Commission expects a stronger rebound of gross fixed capital formation in 2021 than the scenario presented in the plan, with investments in equipment and construction receiving a strong boost from the foreseen projects. Private consumption is also likely to benefit from the measures foreseen in the plan, albeit less than investments. Both the Commission and the Greek authorities forecast a negative contribution from the implementation of the plan to net exports, due to the strong import component of the envisaged investments. The Commission foresees inflation to remain mildly negative in 2021, before gradually recovering in 2022.

Table 2 Comparison of the macroeconomic forecast under the plan and Commission's 2021 spring forecast

	2019	**2020**		**2021**		**2022**		**2023**	**2024**	**2025**	**2026**
	COM	**COM**	**RRP**	**COM**	**RRP**	**COM**	**RRP**	**RRP**	**RRP**	**RRP**	**RRP**
Real GDP (% change)	1.9	-8.2	-8.2	4.1	3.6	6.0	6.2	4.1	4.4	n.a.	n.a.
HICP inflation (% change)	0.5	-1.3	-1.3	-0.2	0.0	0.6	0.7	1.3	1.3	n.a.	n.a.
Employment (15-74 yrs, % change)	1.2	-1.3	-1.3	0.4	0.7	0.7	2.3	1.3	1.3	n.a.	n.a.
Unemployment rate (%)	17.3	16.3	16.3	16.3	16.3	16.1	14.4	13.2	11.9	n.a.	n.a.
General government balance (% of GDP)	1.1	-9.7	n.a.	-10.0	n.a.	-3.2	n.a.	n.a.	n.a.	n.a.	n.a.
General government gross debt (% of GDP)	180.5	205.6	n.a.	208.8	n.a.	201.5	n.a.	n.a.	n.a.	n.a.	n.a.

Sources: Greek recovery and resilience plan, Commission 2021 spring forecast

The general government budget reached a deficit of 9.7% of GDP in 2020[6], which is expected to remain broadly unchanged in 2021 before improving in 2022. Discretionary policy measures taken in response to the pandemic amounted to some 6.3% of GDP in 2020. For 2021, the Commission 2021 spring forecast expects a deficit of 10% of GDP. The lack of

[5] Communication from the Commission on Economic Policy Coordination in 2021: Overcoming COVID-19, Supporting the Recovery and Modernising our Economy, COM(2021)500. In-depth Review for Greece, COM(2021)403.

[6] Headline deficit in ESA terms, according to the latest EDP notification from Eurostat.

improvement compared to 2020 is mainly attributed to the prolongation of the fiscal measures that were adopted to address the pandemic.

Despite the increase in the debt-to-GDP ratio in 2020, financing conditions remain favourable. The debt-to-GDP ratio increased by more than 25 percentage points in 2020[7] due to the combined effect of shrinking GDP and the fiscal stimulus in 2020. The liquidity position of the general government is adequate, as financing conditions remain favourable and the government continues holding a large cash buffer. Gross financing needs will remain above 15% of GDP in 2021-2022. The debt sustainability analysis in the tenth enhanced surveillance report projects that, in the baseline scenario, the debt-to-GDP ratio remains on a downward path from 2021 onwards and reaches 169% by the end of the decade[8]. According to the report, the protracted pandemic increased fiscal sustainability risks, which are partly offset by the expected economic recovery. The composition and maturity profile of government debt mitigates debt vulnerabilities, while additional risks could emerge from contingent liabilities.

The macroeconomic scenario underpinning the recovery and resilience plan projections, identical to the projections in the Stability Programme for 2021, is cautious in 2021, while the projections for 2022 are plausible, closely in line with the Commission 2021 spring forecast. According to the Commission 2021 Spring forecast, real GDP growth is estimated at around 0.5 percentage points higher in 2021 than according to the scenario presented in the plan. This is due to different assumptions on the development of the pandemic, the uptake of funds under the Recovery and Resilience Facility and the outlook of key economic sectors, primarily tourism. The macroeconomic and fiscal outlook continue to be affected by high uncertainty related to the COVID-19 pandemic and its economic consequences.

2.2. Challenges related to sustainable growth, cohesion, resilience and policies for the next generation

Smart, sustainable and inclusive growth

Despite continued improvements in the past years, Greece entered the pandemic with sizeable legacy vulnerabilities that had been further deepened by the crisis. On 2 June 2021, the Commission published an in-depth review under Article 5 of Regulation (EU) No 1176/2011 of the European Parliament and of the Council for Greece. Greece is experiencing excessive imbalances. Vulnerabilities relate in particular to high government debt, incomplete external rebalancing and high non-performing loans, in a context of high unemployment and low potential growth.

Potential growth has been very low in the last decade. Small and low productivity firms continue to play an outsized role in the economy. Economic activity, though shifting gradually to

[7] According to the latest EDP notification from Eurostat.
[8] 10th Enhanced Surveillance Report on Greece, COM(2021)528.

tradable sectors, is still concentrated in traditional and low-innovation sectors, contributing to low productivity growth. Despite some recent progress, the high tax burden, red tape, high regulatory burden, and a slow and inefficient justice system weigh on private investments, both domestic and foreign, create obstacles to companies' growth and delay external adjustment. Low investment in research and development, skills mismatches weighing on productivity growth and low labour market relevance of education also point to weak growth prospects in the future. Finally, the lack of an effective planning and monitoring system for implementing large infrastructure projects weighs on rollout of public investments, including public-private partnerships.

The Greek banking sector has become more resilient since the end of the European Stability Mechanism programme for Greece, but legacy risks and challenges related to the current crisis remain high. Safeguarding the overall soundness of the banking system and managing financial stability risks are essential for recovering from the current crisis and supporting the economy. The pandemic is posing strains on banks, through an increase in credit risk and pressure on profitability and capitalisation. Vulnerabilities and challenges stem from the high stock of non-performing loans (NPLs), which limit the scope of bank credit to support the real economy. The banking sector in Greece has the highest ratio of NPLs on total loans in the euro area. Considerable challenges lie ahead, as support measures such as payment moratoria and associated regulatory forbearance and relaxation of loan origination requirements expire. The timely and effective implementation by 1 June 2021 of the recent insolvency reform, will be key to enhance the use of restructuring solutions for viable firms and the quick resolution of non-viable businesses. This would accelerate the clearance of the existing stock of non-performing loans, while avoiding the creation of new backlogs of bad loans and insolvencies.

Sustainable economic recovery could be fostered through alternative ways of non-bank financing. This includes venture capital and deepening of the Greek capital markets, which are still underdeveloped. Sustainable finance combined with its transition to a Green model of economic growth could further favour economic recovery. State support may also be warranted to leverage private investors and foster lending to viable firms exposed to a shortfall of funding at a reasonable cost, through the design of financial instruments, which avoid crowding-out or moral hazard adverse effects.

Social and territorial cohesion

Unemployment remains very high and the slowly declining trend was interrupted by the COVID-19 crisis. Greece has persistently the highest unemployment rate (16.3% in 2020) and the lowest employment rate (61.1% in 2020) in the EU. Youth unemployment (35.0% in 2020), the gender employment gap (19 percentage points) and share of long-term unemployed (around 70%) are also among the highest in the EU. The labour market is distorted by the large informal economy, estimated to account for some 20% of the GDP. Labour productivity (output per person employed) remains weak and the modest increases starting from 2017 have been reversed by the COVID-19 crisis. Emigration of highly skilled people raises concerns about a brain-drain and adds to the pressure of population ageing. While several short-time work schemes implemented during the crisis have prevented an increase in unemployment, activation support to help jobseekers reintegrate in the labour market is not effective enough. The limited capacity of the Public Employment Services to provide individualized support, as well as the lack of monitoring and evaluation and quality assurance in upskilling programmes are the main bottlenecks. Greece spends less than most other EU Member States on active labour market policies and their coverage is low.

Prior to the pandemic, poverty had been gradually decreasing, but remained among the highest in the EU, with children and working-age people being particularly affected. The introduction of the guaranteed minimum income (GMI) reform in 2017 had a visible impact in terms of poverty reduction, but its second and third pillar (access to complementary social services and activation support) are still not sufficiently developed to face the challenges ahead. In-work poverty is above the EU average. The housing costs overburden rate, at 36.2% in 2019, is by far the highest in the EU and contrasts with the absence of a social housing policy. The pandemic is likely to exacerbate the social situation again, as reflected in the rising number of GMI beneficiaries. The large influx of asylum seekers puts additional stress on the employment and social services. The integration of third-country nationals in the labour market and society presents particular challenges. There are large regional disparities, notably between the capital region and the rest of the country. Rural areas in Greece suffer from a very high poverty rate and one of the highest rural unemployment rates (especially in young people) in the EU.

Health, and economic, social and institutional resilience

The Greek health system still has several structural problems. The COVID-19 emergency confirmed the need to address remaining structural challenges to ensure unhindered access. The primary healthcare network is not strong enough, mainly due to the insufficient stock of family doctors and the lack of a comprehensive workforce strategy. Centralised procurement is still not mature despite recent progress. There has been limited progress in investment in the health sector, which is significantly below the EU average (0.1% of GDP as opposed to 0.2% for the EU-27 in 2018[9]). Investment seems to be insufficient especially in priority areas such as primary care, which could significantly increase the efficiency of the health system. Despite some improvement in the recent years, unmet needs for medical care linked to cost/distance/waiting times remained among the highest in the EU in 2019, with a wide gap between the lowest and the highest income group as well as between employed and not employed people. Co-payments have not been sufficiently means-tested to protect vulnerable groups. This is aggravated by persistent supply-induced demand in pharmaceuticals and diagnostics, which is also reflected in high and increasing clawbacks. While the share of people aged 65+ who face serious difficulties in personal care and/or household activities is considerably higher than the EU-27 average (22.6 against 18.1 in 2014, the latest available year[10]), public spending on long-term care is very low

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[9] Based on Eurostat, gross capital formation in health care (gov_10a_exp).

[10] Source: Eurostat. Severe difficulties in personal care activities or household activities by sex, age and type of activity where the severe difficulty is encountered (hlth_ehis_tadle). Last update: 08-02-2021.

(less than 2% of total healthcare spending). Greece has the lowest number of long-term care workers per 100 individuals aged 65 and over among the OECD countries.

Concerning institutional quality, Greece still faces major challenges regarding its business environment, as evidenced by the low performance in several areas. As for business environment, Greece is one of the countries with the lowest business dynamism in the EU. High regulatory barriers and inefficiencies in the public administration especially in areas such as contract enforcement and registering property, licensing process, environmental permits, coupled with the time needed by the justice system to deliver its final decisions, as well as lack of clarity on existing tax rules hinder productivity growth. Key reforms to improve Greece's digital performance are progressing, although it remains among the lowest in the EU.

Greece does not perform well compared to the EU average in terms of many public administration indicators[11]. The public administration reforms over the past decade focused on a leaner and more efficient state and on the improvement of services. However, Greece remains one of the least decentralised administrative systems of the EU. While digital services available to citizens have been recently expanded (see Gov.gr) and the law-making processes have been reviewed (see Executive State Law), the challenge remains to properly implement and fully roll out these initiatives. Furthermore, the overall administrative capacity of the regional and local government levels is very uneven with unclear and/or overlapping competencies. Areas where there is scope for improvement, include (i) capacity to properly design and implement public policies; (ii) coordination, in particular evident for cross-cutting subjects; (iii) human resources under-utilised and inefficiently allocated; (iv) overly complicated regulatory framework; (v) low penetration of e-Government services; (vi) low continuity in administration due to lack of standardisation of operational procedures; and (vii) absence of modern methods, techniques, and management tools. Regulatory quality suffers from excessive regulation, low use of evidence-based instruments, and non-meritocratic or heavily politicised regulation.

Despite recent reforms, the justice system faces multiple challenges that weigh on its efficiency and quality. The civil court system continues to face efficiency challenges, as the time needed to resolve litigious civil and commercial disputes in first instance has continued to increase. In addition, the productivity of first instance courts has not improved as regards the clearance rate for litigious civil and commercial cases, which means that Greece is facing a clear risk of building up additional backlogs, further exacerbated by the consequences of partial interruptions of work due to the COVID-19 pandemic[12]. Outdated infrastructure and manpower insufficiencies, along with an inefficient distribution of resources under the current judicial map explain part of the issues. Further improvements are needed in the system for the collection of judicial statistics. Shortcomings in the digitalisation of justice include the lack of availability of

[11] World Bank World Governance and EC Standard Eurobarometer's annual indicators for example.
[12] 2021 EU Justice Scoreboard (forthcoming).

online information about the judicial system to the general public, the absence of digitalisation of judicial processes and of the digitalisation of archives and judicial decisions.

Policies for the next generation, children and youth, including education and skills

As per policies for the next generation, improving basic educational outcomes and performance in basic skills is a priority. Strengthening the teaching profession, reforming school curricula and providing adequate support to disadvantaged pupils are overarching challenges. Increasing participation in vocational education and training is also key, alongside promoting reskilling and upskilling to reduce skills mismatches and to address the green and digital transition. An institutional framework to update skills' supply on a regular basis along with a modern training design and delivery mechanism is missing, hence hampering the link between the education system and labour market needs. Availability and quality of childhood education and care (ECEC) is relatively low, in particular for children below the age of obligatory pre-school education. The integration of recently arrived migrants into the education system remains a significant challenge.

2.3. Challenges related to the green and digital transition

Green dimension

The recovery and resilience plan should contribute to the green transition and at least 37% of the financial allocation needs to contribute to climate objectives. The measures in the plan shall contribute to achieving the 2050 climate neutrality objective, and the 2030 energy and climate targets, taking into account Member States' national energy and climate plans. They should also contribute to meeting environmental targets for waste, water, pollution control, sustainable mobility, biodiversity protection and restoration, marine and water resources, and support the transition to sustainable food systems as well as to a circular economy as appropriate, while ensuring that nobody is left behind. For Greece, this refers in particular to energy and resource efficiency in buildings, transport, and industry; renewable energy; and the development of relevant technical competencies and skills. The measures should also contribute to meeting environmental targets for waste, water, pollution control, sustainable mobility, biodiversity protection and restoration, marine and water resources, and support the transition to sustainable food systems as well as to a circular economy as appropriate, while ensuring that nobody is left behind. For Greece, investment in marine biodiversity and ecosystems are particularly important, as marine protected areas (MPAs) provide limited real protection and overfishing persists.

Greece has been historically reliant on solid fossil fuels (lignite) for electricity generation. However, a combination of increased effectiveness of climate policies and higher carbon prices, inability to modernise plants so as to bring them in line with stricter environmental policies, and market reforms, which are expected to lead to increase in competition of alternative energy sources, have significantly brought down the share of electricity produced with lignite, which in 2020 was less than 20%.

The Greek government committed to phase out existing lignite-based power plants by 2023 already at the UN Special Climate Action Summit in 2019, and confirmed such commitment in the final National Energy and Climate Plan (NECP). The only exception is the Ptolemaida V plant, still under construction, which will be converted by 2028. The phase-out will have significant economic and social consequences for the regions where lignite production is concentrated, notably Western Macedonia and – to a lesser extent in absolute terms – Peloponnese (Megalopolis). Security of supply and a smooth transition to clean energy sources need to be ensured.

Renewable energy production and consumption have significantly increased. The share of consumption of energy from renewable sources has almost doubled between 2010 (10.08%) and 2019 (19.68%). Greece has therefore gone beyond its 2020 target of 18% and has set a 35% objective for 2030, which was assessed by the Commission as sufficiently ambitious in its final assessment of the NECP. Looking ahead, the decommissioning of existing lignite power plants by 2023 and the increased level of ambition for climate objectives at 2030 and 2050 will require further significant investment in this sector.

Offshore wind in particular is still at early stages in Greece but a good potential has been identified, also for other forms of renewables. Greece has announced reforms of the framework for offshore wind parks, including regulatory, installation and support aspects, while maritime spatial plans will need to be prepared. Greece has also a high potential for other forms of renewable energy from waste and by-products of the agriculture and forestry sectors (while taking into account the effects on air pollution and the waste hierarchy). Considering that Greece is particularly prone to forest fires, damage to forests needs to be prevented by supporting forest resilience and restoration in addition to afforestation.

Energy efficiency remains a key issue, with a modest level of ambition for 2030 set for final energy consumption targets and a low level of ambition for primary consumption. This is especially problematic for private and public buildings, which should undergo deep renovations to realise the significant potential savings. In its NECP, Greece has set out a target to annually renovate 3% of the total floor area of public buildings and a target of 40 000 homes per year to be upgraded by 2030 (equal to 12-15% of total housing stock by 2030), while according to Greece's long-term renovation strategy the final energy demand in buildings will be reduced by 8% compared to 2015 levels through targeted policy measures. While such target is relevant, it is not ambitious enough. Ideally, this effort should be reinforced and accompanied by measures to alleviate energy poverty, a pressing social challenge for Greece.

Greece implemented deep reforms in its energy markets in the context of the economic adjustment programmes. They focused on opening up markets and increasing competition, and delivered a reduction in the market share of the electricity incumbent, which declined in the electricity retail market from 95% in 2015 to 66% in 2020. It will be important for competitors in this market to gain further traction and for competition to cover all market segments, including the different segments of the wholesale electricity market. Further reforms are pending under the post-programme enhanced surveillance framework and need to be implemented to make Greek electricity markets more competitive, by enhancing flexible market participation (demand response) and complete the market coupling with neighbouring Member States. Further, to enable the new electricity markets to function properly, a monitoring mechanism is being finalised by the national regulatory authority, while it is essential that all market actors fulfil their role and responsibilities in a transparent and non-discretionary manner. For gas, past reforms brought about the full liberalization of the market, with the breaking up of the gas distribution monopolies and the separation of the distribution and supply activities. The building of the interconnector with Bulgaria enhanced possibilities for competition and improved security of supply.

Full ownership unbundling of the electricity and gas transmission network operators is having a significant impact on the level of investment in networks. Apart from the effect on economic growth, this should also have a positive effect on electricity consumer prices as the interconnection with the mainland is expected to bring down the cost of electricity in the islands.

Enhancing interconnection capacity with neighbouring countries is also key. It will facilitate Greece's further integration in the European markets and also increase competition. Interconnection with Cyprus is particularly relevant in this regard.

Public and private transport also require strong investment to improve energy efficiency and develop electro-mobility and sustainable transport. Greece is well behind in the adoption of electric vehicles (with a rate of 0.3% in new sales compared to an EU average of about 2%) and in the availability of sustainable public transport, especially in the two major cities of Athens and Thessaloniki. The Greek fleet is among the oldest in Europe, in particular the medium- and heavy-duty vehicles (18.7 years in Greece versus an EU-average of 11.7), which contributes to the transport system's heavy dependence on oil and the low use of renewables, which accounted for only 1.7% in 2016, against an objective of 10% by 2020. This also contributes to a relatively poor road safety record. Major reforms should be also undertaken in the rail sector as a fundamental pillar of promoting sustainable transportation, especially in the connection between Athens and Thessaloniki. Major investments are also required for the upgrade and greening of the fleet of vessels interconnecting the islands with the mainland.

Waste management and circular economy remain an issue. Greece brings to landfill 80% of its municipal waste (versus an EU average of 24%[13]), and plans for improving reuse and recycle, in line with circular economy principles, are lagging behind. The country is going to miss its recycling targets for 2020, and important investments and reforms are thus required to reach the post-2020 targets and to fully implement the EU environmental acquis. Greece has adopted its National Circular Economy Strategy in December 2018, however the circular material use rate is currently at 2.4%, far below the EU27 average (11.2%). Following the update of the National Waste Management Plan in 2020, the 13 Regional Waste Management Plans, also have to be updated.

Investments are still needed to improve water treatment and water infrastructure in general. About 10% of generated wastewater is not connected to collecting systems,

[13] European Commission, Environmental Implementation Review 2019 - Greece.

representing close to half of the Greek municipalities. This load is treated exclusively through individual or ad-hoc systems (for instance septic tanks, storage units or individual treatment plants) and needs upgrading. The performance of the water supply services is poor, particularly with regards to distribution leakages. Greece submitted its second River Basin Management Plans with a long delay. The third River Basin Management Plans are due end-2021 and should be submitted to the Commission by March 2022. The proper functioning of the sector requires reforms and the adoption of legislative and administrative measures to ensure the sustainability and operational viability of investments and quality services to the citizens.

Greece faces challenges with water abstraction and prolonged periods of drought, which are projected to intensify due to the climate change. The restoration of the water bodies to good status as provided by the Water Framework Directive remains an issue. Reversing soil erosion, reducing air pollution and improving water use efficiency are important priorities. Prioritising challenges related to biodiversity, soil, air and water (e.g. catch and cover crops, retention of crop residues on fields, switching to less water intensive crops and improved crop varieties, improving irrigation efficiency via water-saving systems and precision farming) combined with an enhanced conditionality, will be crucial to the successful green transition of Greek agriculture.

The law on biodiversity and the national biodiversity strategy are sound and comprehensive, but neither has been properly implemented. According to Greece's latest report (2019) on the conservation status of habitats and species covered by the Habitats Directive, only 48% of the assessments for Mediterranean habitat types and 35% for species show a good conservation status[14]. The country is lagging behind in the implementation of the Regulation on invasive alien species[15], failing to establish surveillance systems and official controls to prevent the introduction and further expansion of invasive alien species of Union concern.

The table below gives an overview of Greece's objectives, targets and contributions under 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.

Table 3 Greece's objectives, targets and contributions under regulation (EU) 2018/1999

National targets and contributions	Latest available data	2020	2030	Assessment of 2030 ambition level

[14] European Environmental Agency, Conservation status and trends of habitats and species 2019.

[15] Regulation (EU) No 1143/2014 of the European Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species, OJ L 317, 4.11.2014, p. 35.

Binding target for greenhouse gas emissions compared to 2005 under the Effort Sharing Regulation (ESR) (%)	-28 (2017)	-4	-16	As in ESR, total GHG target implies higher reductions
National target/contribution for renewable energy: Share of energy from renewable sources in gross final consumption of energy (%)	19.7 (2019)	18 (target)	35	Sufficiently ambitious (31% is the result of the formula)
National contribution for energy efficiency:				
Primary energy consumption (Mtoe)	22.3 (2019)	24.7	20.55	Modest
Final energy consumption (Mtoe)	16.2 (2019)	18.4	16.51	Low
Level of electricity interconnectivity (%)	10%	13	21	N.A.

Source: Assessment of the final national energy and climate plan of Greece, SWD (2020) 907 final. Eurostat where data is indicated for specific years.

Digital dimension

The recovery and resilience plan should contribute to the digital transition and at least 20% of the financial allocation needs to contribute to digital objectives. The measures in the plan should, inter alia, contribute to the digital transformation of the economic and social sector (including public administration, public services, and the justice and health systems). The objective of the measures in the plan should be to improve not only the competitiveness, but also the resilience, agility and security of companies and public actors, all while ensuring inclusiveness.

Greece ranks 27th out of the 28 countries assessed in the Digital Economy and Society Index (DESI) for 2020. This indicates large gaps regarding all aspects of the digital transformation. Based on the data collected prior to the pandemic, Greece made limited progress across most of the sub-dimensions of the Digital Economy and Society index (DESI) and did not close its gap compared to other EU countries. The combination of shortfalls in connectivity, lack of digital skills and ICT specialists, limited digital uptake by companies, low digital public sector services provision, low digital related investment in R&D, and absence of smart public transport solutions hinders digital transformation of the Greek economy and society. However, the pandemic acted in Greece as an accelerator in setting out an ambitious reform agenda for digital transformation and launching a range of new digital services (see gov.gr).

Connectivity remains an issue in Greece, and is a key obstacle to the digital transition. While the country has started engaging in the deployment of very high capacity networks and its fixed very high capacity network coverage reached 10% in 2020, up from 7% a year before, it is still far below the EU average of 59%. The take up of the fixed broadband is improving slowly, reaching 77% in 2020, up from 76% in 2019 (in line with the EU average). While Greece has recently made progress to tackle long standing obstacles to investment in networks, more efforts are needed, in particular in view of the forthcoming deployment of Fiber To The Premises (FTTP) and 5G. Reforms to address obstacles to investment in networks i.e. one-stop shops, digitalisation of the permit granting procedure, are needed and would maximise the impact of investments. Low broadband coverage in rural areas is increasing the rural urban divide in particular in remote and less populated rural areas, hindering their integration in the knowledge based economy and results in an unattractive environment making it difficult for businesses to thrive. The 5G license auction[16] was successfully concluded in December 2020. With reforms and targeted investments, Greece needs to create the right conditions for the achievement of the 2025 Gigabit targets, and bridge the digital divide with investments such as the fibre interconnection of main islands, the cross-border 5G corridors and interconnection of islands with submarine fibre cables, complemented by space-based solutions.

Lack of digital skills, both at basic and advanced level, remains an obstacle to the digital transition. Despite a 5 percentage point increase since the previous year, the share of citizens with at least basic digital skills remained low at 51% in 2019, when 90% of jobs require at least basic digital skills. The share of ICT specialists in total employment, is at 2.0% in 2020, well below the EU average of 4.3%[17]. The situation is critical as the share of ICT graduates in total graduates remains low as well. Skills mismatch is a major challenge in Greece with companies reporting difficulties in finding people with the right skills. A comprehensive digital education action plan including the revision of curricula and teachers' training has been launched in 2020. Other initiatives such as the 'Greek National Coalition for Digital Skills and Jobs' can contribute to upskilling and reskilling the adults and the workforce. Nevertheless, significant efforts in increasing both basic and digital skills remain necessary to close the gap to the EU average and facilitate the country's digital transformation.

Integrating digital technologies, in particular in small and medium-sized enterprises (SMEs), remains an issue in Greece. Overall, Greece ranks 24th regarding the integration of digital technologies in the Digital Economy and Society Index in 2020. The share of SMEs selling online was at 9% in 2019, i.e. half the EU average, and the share of turnover coming from e-commerce amounted only to 4% of total turnover for SMEs, almost one third of the EU average. Limited uptake of innovative digital solutions by SMEs in Greece also hinders innovation performance.

Despite the provision and the uptake of the digital public services in Greece remaining below the EU average, the pandemic acted as an accelerator of the use of digital public services. Digital public services for business have improved as well in recent years but also remain below the EU average. Limited provision of digital public services undermines access to

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[16] For all pioneer bands (700 MHz, 3400 -3800 MHz and 26 GHz) as well as of the 2 GHz band.

[17] Source: Eurostat - Labour Force Survey.

key social services such as healthcare and education/learning, particularly endangering vulnerable groups of society, especially during crisis times.

The research and innovation activity in Greece remains low in general as well in the ICT sector. In 2019, R&D intensity amounted to 1.27% of GDP in Greece, compared to 2.19% at EU level[18]. At 2.5% of GDP in 2017, the ICT sector is small in relative size compared to other EU Member States and only accounts for 1.1% of total Greek R&D expenditure. Increasing Greece's business R&D expenditure would be instrumental in improving its research and innovation capacity.

The deployment of digital advanced technologies across all economic sectors in Greece remains slow, partly due to the large share of SMEs and the large services sector focused on low technology intensive services such as tourism. With 98% of enterprises having less than 20 employees (2017)[19] the Greek business landscape is characterised by a large share of micro and small enterprises, which in general are slower in adapting cutting-edge technologies. The share of enterprises using new technologies such as artificial intelligence or 3D printing technologies therefore remains low at 1% and 2% respectively in 2018[20]. More established advanced technologies such as cloud computing services and big data analytics are being used by a larger share of enterprises (7% and 13% respectively in 2019). Greece has expressed interest in investing on advanced technologies and signed the declaration on Quantum Communication Infrastructure (in December 2019)[21]. It is currently developing a national strategy on AI, while a strategy towards Industry 4.0 is still missing.

Greece is significantly lagging behind the rest of the EU regarding the digitalisation of urban public transport and other smart and sustainable city initiatives. The digital transformation of Urban Transport Organisation of Athens and Thessaloniki (OASA and OASTH respectively), would be necessary in order to make public transport more attractive and other, smaller municipalities are also lacking as regards integrated public transport systems. Making less polluting public transport alternatives more attractive would also contribute to the country's green transition. Other elements of smart and sustainable city initiatives such as big data analytics technologies, Artificial Intelligence, smart water utilities, traffic management, waste management solutions, smart lighting and smart energy solutions, urban planning, improved social participation in decision making, improved service delivery to vulnerable groups, local urban centre improvements, and the improved availability of digital resources, training and skill upgrading are relatively limited. More activities based on the principles of the

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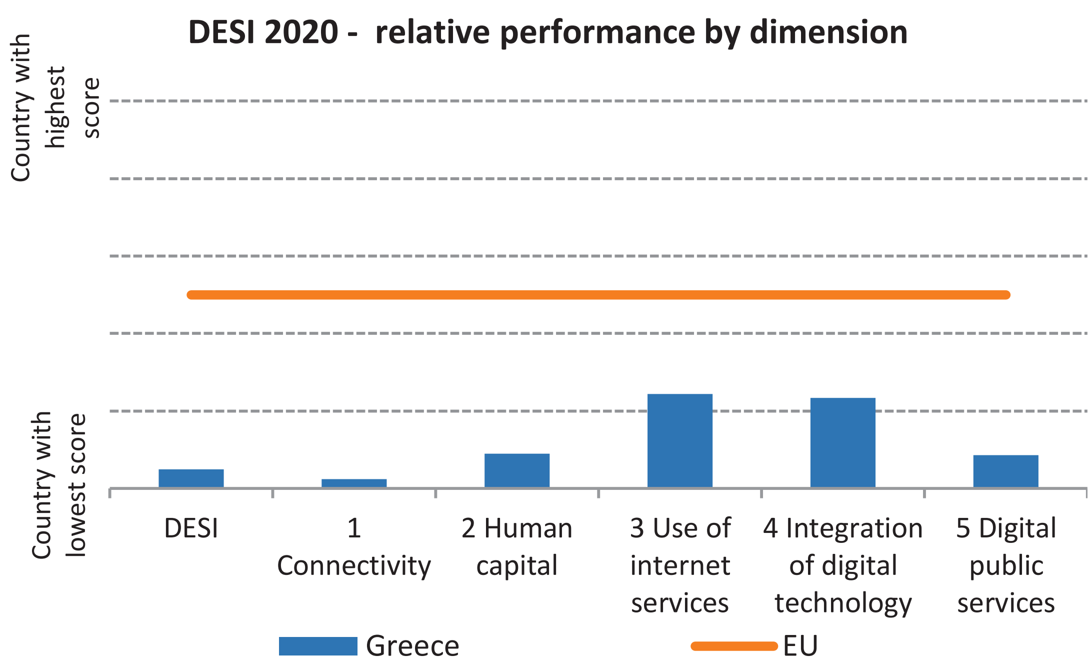
[18] Source: Eurostat.
[19] Source: Eurostat.
[20] Source: Eurostat.
[21] https://ec.europa.eu/digital-single-market/en/news/nine-more-countries-join-initiative-explore-quantum-communication-europe

EU Living-in.eu declaration would further improve the life of citizens, with investments in smart data platforms and advanced digital services.

Regarding rural communities and the agricultural sector, connectivity and skills for farming communities will be key to achieve the digital transformation. Knowledge and innovation have a key role to play in helping farmers and rural communities meet future challenges. Innovation support services as well as full broadband coverage in rural areas are needed to enable the development of digital skills through appropriate training. Advisory services and operational groups will be essential to respond to the growing information needs of farms regarding economic, environmental as well as social aspects. Further actions have to be undertaken to increase knowledge flows and strengthen links between research and practice, including the creation of innovation support services, e-infrastructures, workshops and platforms for disseminating information.

Figure 1 DESI 2020 - relative performance by dimension



Note: EU aggregate corresponds to EU28, based on 2020 DESI report.

Source: Greece's ranking in the Digital Economy and Society Index 2020. https://ec.europa.eu/digital-single-market/en/scoreboard/greece

Greece has set out an ambitious reform agenda in its draft national digital strategy. The new digital strategy ("Digital Bible"), which is under revision following its release for public consultation, presents over 450 projects focused on connectivity, digital upskilling, e-Commerce and enhancing the interoperability and robustness of public IT systems. The new Ministry for

Digital Governance is overseeing the work on the new digital strategy and is pursuing the objective to implement the 'digital by default' principle in Greece by 2023.

Box 1 Progress towards the Sustainable Development Goals

The objectives of the Sustainable Development Goals (SDGs) are integrated in the European Semester since the 2020 cycle. This provides a strong commitment towards sustainability in coordination of economic and employment policies in the EU. In that respect, this section outlines Greece's performance with respect to SDGs with particular relevance for the four dimensions underpinning the 2021 Annual Sustainable Growth Strategy and of relevance to the recovery and resilience plans (green transition, fairness, digital transition and productivity, and macroeconomic stability), indicating possible areas where investments and reforms in line with the objectives of the Recovery and Resilience Facility could further accelerate the progress on the SDGs.

Sustainable Development Goals and the four dimensions underpinning the Annual Sustainable Growth Strategy

In an EU context, Greece has made substantial progress towards meeting the Sustainable Development Goals (SDGs) over the past years starting from a relatively low position. By comparison with the EU average performance, Greece has taken important steps based on several headline indicators included in the EU SDG indicator set used by Eurostat for monitoring progress towards the SDGs in an EU. However, in several cases, this has been due to the relatively low starting position of Greece compared to the EU as a whole[22].

Greece has made progress with meeting certain environmental objectives that are relevant for the green transition. In the area of affordable and clean energy (SDG 7), Greece has fared particularly well in reducing the greenhouse gas emissions intensity (by 23% between 2014 and 2019). However, their level remain above the EU average. Access to affordable energy, an area where Greece lagged for long significantly behind other EU Member States (with almost 1/3 of population being unable to keep their home adequately warm in 2014) has also improved markedly in more recent years, although at almost 17.9% in 2019, the share of affected households remains well above the EU average (6.9%). Performance with regard to SDG 12 (responsible consumption and production) has been mixed. While resource productivity in Greece increased by 37% between 2014 and 2019, it remains below the EU average, while average CO_2 emissions per km from new passenger cars in Greece saw a 7% increase during the same period, when in the EU they went down marginally. On the positive side, the circular material use rate (percentage of material input for domestic use) increased by three times (from 1.4% to 4.2%), but remains below the EU average (11.9% in 2019), while generation of waste excluding major mineral wastes dropped by around 23% when it increased marginally in the EU. Some steps were also taken towards meeting climate action goals (SDGs 13) as reflected in the dramatic increase of the share of renewable energy in gross final energy consumption that by 2019 had reached the EU average (19.7%), albeit starting from a lower level.

In the area of labour market and social policy, progress has been mixed. The unfavourable trend in poverty rates and long-term unemployment, which reached a peak in 2013, had been reversed by the economic recovery that ensued after the decade-long financial crisis. The recovery has also supported job creation (SDGs 1, 2, 8). Nevertheless, given Greece's relatively weaker starting position, its labour and social situation remains less favourable than in the EU as a whole based on almost all indicators. In the same vein, fairness aspects, such as gender equality (SDGs 5, 10), have shown some signs of improvement, but remain less positive than in the EU as a whole, given Greece's still large gender gap in terms of employment and pay and the more prominent underrepresentation of women in economic and political life. Meanwhile, a number of good health and wellbeing indicators (SDG 3) have remained relatively stable or even deteriorated in Greece during the reference period (such as smoking prevalence or people killed in accidents at work) as opposed to the positive trend that was observed in the EU as a whole. Despite improving during 2014-2019, access to health care also remains an issue, with 8.1% of the population aged 16 or above reporting unmet medical needs in 2019 due to cost, distance or waiting times as opposed to only 1.7% in the EU as a whole.

Objectives to promote the digital transition, productivity and macroeconomic stability are gradually being pursued. Positive performance in several aspects of the education and R&D system such as early school leaving, tertiary education attainment, adult learning, and basic digital skills (SDG 4), as well as higher R&D production (SDG 9) has supported the digital transformation of the economy and society and reverted the negative trend in productivity. Macroeconomic stability (SDG 8) improved during the five years prior to the pandemic for which data are available, mainly thanks to the

[22] Progress towards meeting SDGs, as described in this Box, is assessed over the period 2014-2019 for which data on the various indicators are available. The impact of the pandemic is not reflected in this analysis.

general labour market and economic recovery and the strengthening of institutions as reflected in improved perceptions of citizens about personal security and the justice system (SDG 16).

Financing under the Greek recovery and resilience plan can further support progress towards the SDGs and the four dimensions underpinning the Annual Sustainable Growth Survey. The proposed wide-range and thorough reforms and investments in the green and digital transition, social inclusion and macroeconomic stability are expected to further contribute to meeting the respective SDGs. Substantial EU funds already support actions in line with the Sustainable Development Goals in Greece. The European Structural and Investment Funds support 13 out the 17 SDGs and up to 92% of the funds' expenditure is contributing to meeting the respective objectives.

3. OBJECTIVES, STRUCTURE AND GOVERNANCE OF THE PLAN

3.1. Overall strategy of the plan

Greece's recovery and resilience plan introduces reforms and investments that aim at a considerable improvement in economic activity, technologies and institutions. These measures aspire to direct the country towards a more extroverted, competitive, green, and digital economic model. The plan also aims at facilitating cohesion and justice, while establishing a more efficient public administration and a resilient and inclusive social safety net. Greece anticipates that the proposed measures will result in the creation of new and permanent jobs, and in a lasting increase of real GDP, while contributing to addressing challenges identified in the relevant Country Specific Recommendations. In this context, the plan is structured around four pillars, encompassing a total of eighteen components: (i) Green Transition (four components); (ii) Digital Transformation (three components); (iii) Employment, skills and social cohesion (four components); (iv) Private investment and transformation of the economy (seven components). The timeline for the implementation of the plan ranges from the fourth quarter of 2020 to the third quarter of 2026, while the disbursements are proportionally distributed throughout the lifetime of the facility.

The green transition pillar focuses on energy efficiency and buildings renovation, renewables, electro-mobility, climate resilience, and environmental protection. The objective of component 1.1 (Power Up) is to increase the resilience of the electricity network, its capacity and its energy storage capabilities, thus allowing for greater penetration of renewable energy sources in the energy mix. Measures aim to reduce energy costs, phase-out oil-fired power generation, and increase the potential of the islands to support electricity generation from renewables. Component 1.2 (Renovate) introduces reforms and investments in urban and spatial planning, as well as in the renovation of residential, commercial, industrial and public buildings to improve energy performance and reduce the carbon footprint. Component 1.3 (Recharge and refuel) contains actions that enable the installation and operation of electric vehicle charging equipment, and promotes investments to establish the required infrastructure. To enhance environmental protection and resilience in natural risks, component 1.4 (Sustainable use of resources, climate resilience and environmental protection) describes measures related to reforestation and biodiversity protection, improvements in the national irrigation network, wastewater and water management, and prevention and coordination of actions against natural disasters and climate change phenomena.

The digital transformation pillar aims at improving network infrastructures and facilitating the digital transition in the public and private sectors. In an effort to accelerate connectivity, a key prerequisite for digital transition, the main objectives of component 2.1 (Connect) are the facilitation of fibre optic infrastructure in buildings, the switch to fast broadband connections and 5G technology, and the utilisation of space technologies and applications. Taking into consideration current challenges, component 2.2 (Modernise) includes the incorporation of new technologies, tools and infrastructure in the public sector, and the provision of improved services to citizens and businesses. It aims at increasing interoperability between systems and data, cybersecurity and data governance strategies and policies, and extended use of advanced technologies, such as cloud computing, artificial intelligence and big data. Component 2.3 (Digitalisation of businesses) focuses on increasing the digital maturity of businesses by creating a digital infrastructure through funding and digital awareness schemes, creating the appropriate digital business ecosystem (industrial platform and data spaces), encouraging investments in modern digital technologies (e.g. using tax incentives), and upgrading the cash registers and Point of Sale (POS) ecosystem.

The third pillar focuses on labour market, education and training, healthcare sustainability, and access to social policies. Component 3.1 (Increasing job creation and participation in the labour market) introduces labour market policy reforms to enhance job creation, improve job quality, strengthen economic and social resilience, promote labour market inclusion, and reduce inequalities, poverty and exclusion. The aim of component 3.2 (Education, vocational education, training, and skills) is to increase long term employment and productivity through reforms and investments in skills, lifelong learning, vocational education and training, research performance of universities, and digitalisation of all levels of education. Component 3.3's (Improve resilience, accessibility and sustainability of healthcare) main building blocks include redesigning the health system through organisational reforms, optimising financial resources, reforming the primary health system, and reorienting health services. Finally, measures in component 3.4 (Increase access to effective and inclusive social policies) pertain to active inclusion of vulnerable population groups, reinforcing early childhood education and care, and combating discrimination.

The fourth pillar combines measures to strengthen public administration, justice, and the financial system, promote research and innovation, enhance competitiveness in key sectors, and facilitate private investment. Components 4.1 (Making taxes more growth friendly, and improving tax administration and tax collection) and 4.2 (Modernise the public administration) describe tax policy and tax administration measures (including digitalisation) to contribute to the fight against tax evasion, as well as actions in selected areas of public administration, fight against corruption, public finance management, and public procurement. Component 4.3 (Improve the efficiency of the justice system) aims at accelerating and digitalising judicial processes, while upgrading relevant infrastructures. Component 4.4 (Strengthen the financial sector and capital markets) includes a set of financial system reforms, mainly to address private indebtedness, tackle information asymmetries between lenders and borrowers, as well as public sector entities and banks, and strengthen capital markets. Component 4.5 (Promote research and innovation) seeks to increase R&I public and private investment, strengthen the links between science and business, and develop R&D infrastructure through a series of investments and reforms. A group of measures aiming to improve the competitiveness of key sectors of the Greek economy, namely tourism, culture, agriculture, aquaculture, manufacturing, and transport, are provided in component 4.6 (Modernise and improve resilience of key economic sectors) as recently promoted by the Commission Communication "Updating the 2020 New Industrial Strategy: Building a stronger Single Market for Europe's recovery"[23]. Component 4.7 (Improve competitiveness and promote private investment and trade) regards reforms that target at the improvement of the business environment and the simplification of the regulatory framework, complemented by the provision of financial incentives to the private economy, using RRF loans (see below).

RRF loans are intended to incentivise private investment in transformative sectors of the economy. The reforms included in component 4.7 are complemented by Greece's proposal to use RRF loans to increase private investment in five strategic areas, namely a) green transition, b) digital transformation, c) research and development, d) economies of scale through mergers, acquisitions and partnerships, and e) trade promotion, using three different channels. First, funding will be provided through corporate bond purchases or syndicated loans alongside financial institutions and commercial banks, with a small participation by the beneficiaries. Second, the proposal includes the establishment of an equity platform targeting start-ups, scale-ups and dynamic SMEs in important sectors of the Greek economy. Third, the proposal includes the utilisation of a part of Greece's InvestEU national compartment.

Table 4 Components and associated costs

Component	Costs (EUR million)
1.1 Power Up	1 200
1.2 Renovate	2 711
1.3 Recharge and refuel	520
1.4 Sustainable use of resources, climate resilience and environmental protection	1 763
Total Costs Pillar 1: Green Transition	**6 194**
2.1 Connect	522
2.2 Modernise	1 281
2.3 Digitalisation of businesses	375

[23] COM(2021) 350 final

Total Costs Pillar 2: Digital Transformation	**2 178**
3.1 Increasing job creation and participation in the labour market	776
3.2 Education, vocational education, training, and skills	2 311
3.3 Improve resilience, accessibility and sustainability of healthcare	1 486
3.4 Increase access to effective and inclusive social policies	611
Total Costs Pillar 3: Employment, skills and social cohesion	**5 184**
4.1 Making taxes more growth friendly, and improving tax administration and tax collection	187
4.2 Modernise the public administration, including through speeding up the implementation of public investments, improving the public procurement framework, capacity building measures and fighting corruption	189
4.3 Improve the efficiency of the justice system	251
4.4 Strengthen the financial sector and capital markets	21
4.5 Promote research and innovation	444
4.6 Modernise and improve resilience of key economic sectors	3 743
4.7 Improve competitiveness and promote private investment and trade	5
Technical Assistance	40
Total Costs Pillar 4: Private investment and transformation of the economy	**4 880**
Total Costs all Pillars	**18 436**
RRF Loan Facility	**12 728 (loans)**

3.2. Implementation aspects of the plan

Consistency with other programmes

The recovery and resilience plan provides detailed justification for its alignment to the goals, priorities and policy and reform recommendations of other national broad plans. The recovery and resilience plan is part of the National Plan of Government Policies (NPGP) 2021. It is also interlinked and consistent with reforms from the National Reform Plan (NRP). In some instances, the reforms from the plan are broader than the corresponding ones presented in other national documents, covering more fields. The plan states that reforms that are listed only in the plan and are new to the NRP, range between 5-10% of the NRP (less than 15 reforms), but will be added to the NRP on its regular revision.

The recovery and resilience plan is consistent with the National Energy and Climate Plan, which includes reforms and investments that will facilitate reaching climate and energy targets for 2030 and paving the path towards climate neutrality by 2050. Notably, the "Green Transition" pillar of the plan supports the transition towards a low-carbon energy system, with increased participation of renewable energy sources in energy consumption, improved energy efficiency of the domestic building stock (household, public and commercial buildings), and a “greener” and more sustainable transport system (with emphasis on the use of electromobility and electric vehicles).

The Greek recovery and resilience plan is consistent with the National Transport Strategic Plan, as it acknowledges the importance of developing modern, sustainable, accessible and climate change resilient transport infrastructures. It acknowledges the enhancement of resilience against threats and risks of any kind as a crucial element of economic and societal development and progress. As a result, it incorporates the strategic guidelines, objectives and detailed targets of the National Plan for Crisis Management and Hazard Mitigation.

The plan also takes into account the objectives and priorities presented in the draft National and Territorial Just Transition Plans and facilitates the just and viable socio-economic transition of the coal-dependent areas through dedicated reforms and investments. The “Green Transition” pillar, and specifically Component 1.1, includes investments for the restoration, rehabilitation and upgrading of lignite zones in Western Macedonia and Megalopolis, to accommodate new uses according to the five growth pillars detailed in the draft Just Transition Plan: (i) clean energy, (ii) smart agricultural production, (iii) sustainable tourism, (iv) industry, handicrafts and trade, and (v) technology and education. These works are expected to create new jobs for the local workforce, as well as a range of novel growth opportunities.

The recovery and resilience plan is also designed to operate in consistency, complementarity, and cooperation with the new Greek Partnership Agreement for the Development Framework for the 2021-2027 Programming Period of the Cohesion Policy funds, and its sectoral and regional programmes. On the one hand, the plan incorporates the strategic directions, objectives and priorities of the new draft Partnership Agreement, while on the other hand it draws from and builds on the outcomes and the experience from implementing the Partnership Agreement for the previous MFF period (2014 – 2020). Along with the Common Agricultural Policy, the three instruments contribute the bulk of investment funds to be deployed in the Greek economy in the following nine years. The new Partnership Agreement for the 2021 – 2027 Programming Period, currently in draft form, is structured around five key Policy Objectives (PO) and a Special Objective linked to the Just Transition Fund, presented in a manner consistent with the strategic priorities, the goals and the respective components of the recovery and resilience plan. Throughout the implementation, it will be important to ensure appropriate coordination between the Recovery and Resilience Plan and the operational programmes co-financed by the Cohesion Policy funds, exploit synergies and avoid overlaps in order to maximise impact of the investments and safeguard efficiency.

The pillars of “Green Transition,” “Digital Transformation”, “Private investments and transformation of the economy” and “Employment, skills and social cohesion” comprise investments and reforms which contribute directly and indirectly to job creation, to enhancing youth employment and interact with the Youth Guarantee Implementation Plan. Reforms and investments included in the “Employment, skills and social cohesion” pillar aim at increasing long-term employment, employability and labour productivity through labour market reforms, modernization of active and passive labour market policies (including measures targeted to the young unemployed individuals), upgrading the mechanisms for diagnosis of labour market needs, and reforming and digitalizing the Public Employment Service (OAED). These reforms and investments are related to the goals and priorities of the National Youth Guarantee Implementation Plan, and complement its activities, while they are expected to operate as complements in mitigating the employment and social impact of the COVID-19 pandemic.

Consistency with the challenges and priorities identified in the most recent euro area recommendation[24]

The Recovery and Resilience Plan is also consistent with the challenges and priorities identified in the most recent euro area recommendations and the European Flagships identified in the Annual Sustainable Growth Strategy. In particular, the Recovery and Resilience Plan includes reforms linked to improving the business environment, the efficiency of the public administration, and the quality and efficiency of the justice system through component 4.7 (Improve competitiveness and promote private investment and trade), component 2.2 (Modernise), component 4.2 (Modernise the Public Administration) and component 4.3 (Improve the efficiency of the Justice System). Reforms regarding the anti-money laundering framework, fight against corruption and securing tax collection capacity are addressed through component 4.1 (Making taxes more growth friendly, and improving tax administration and tax collection) and component 4.2 (Modernise the Public Administration), which will enhance the AML/CFT framework, as well as modernize and digitalise the relevant infrastructures and databases. In this context, EU directives have already been embedded in the Greek law to enhance transparency, expand the application of anti-money laundering and counter terrorism financing, such as through the transposition of the AMLD5 in October 2020 (Law 4734/2020 amending Law 4557/2018).

National arrangements for the implementation of the plan

The implementation of the recovery and resilience plan will be coordinated by the dedicated Coordination Agency (RRF). A tailored-made Management and Control System (hereafter MCS) has been set-up to control the implementation of the plan. The System is developed under the direct management of the Recovery and Resilience Facility Coordination Agency, which has the overall responsibility for the implementation of the national recovery and resilience plan and constitutes the single point of contact (“the coordinator”) between the Greek Authorities and the European Commission (EC). (See also section 4.8).

The Greek plan foresees the use of the Recovery and Resilience Facility to support and strengthen the management and control system of the Recovery and Resilience Facility

[24] Pending final adoption by the Council, after endorsement by the European Council. The text agreed by the Eurogroup on 16 December 2020 is available at: https://data.consilium.europa.eu/doc/document/ST-14356-2020-INIT/en/pdf

Coordination Agency to meet the increased obligations of the national plan and to enable its efficient and effective implementation. The financial support of specific activities, such as the close monitoring of projects' progress, audits and on-the-spot inspections, certifications, provision of information and publicity actions, is considered essential for the achievement of the recovery and resilience plan's purposes.

Gender equality and equal opportunities for all

Regarding the gender equality and equal opportunities for all, the plan addresses the needs of women and several disadvantaged groups, particularly via the measures proposed under pillar 3 (employment, skills, and social cohesion). In 2020 the labour market participation rate of women in Greece was 51.8%, against 70.7% for men. Female labour market participation in Greece is one of the lowest among EU Member States, and significantly lower than the European average (66.8%). The third pillar of the Greek plan includes policies and measures strengthening the work life balance for both genders, and promoting female labour participation, in particular through investment in childcare. The creation of new childcare units (with emphasis on places for infants and children up to 2.5 years old), the creation of childcare facilities in private companies and development of a comprehensive learning curriculum will increase the coverage and quality of childcare services, thus enhancing equal opportunities for women to remain in the labour market. Equal opportunities are further addressed by labour market activation programmes for vulnerable groups such as persons with disabilities, migrants and guaranteed minimum income recipients as well as by initiatives to promote diversity awareness. Furthermore, the third pillar of the plan includes the strengthening of the Equality Observatory of the Ministry of Labour and Social Affairs, in order to support data collection and data processing, with a view to better describe inequalities and discrimination. This will also facilitate the assessment of progress made in the field of equality and equal opportunities for all.

Consultation process

Greece carried out a consultation process before submitting their Recovery and Resilience Plan. In line with the principle of good governance, Greece carried out a stakeholder consultation after the submission of the draft plan to the Commission in November 2020, and posted it on the Ministry of Finance's website. The authorities received contributions and opinions on the reforms and investment from the local and regional authorities, industry, NGOs, social partners, Economic and Social Committee of Greece and other economic associations, totalling 24 bodies. A summary of the public consultation was published following the input collected in the consultation process and the comments received from the European Commission, the plan was redrafted and endorsed by the Council of Ministers at the end of March 2021. Then, it was presented to the public by the Prime Minister and a presentation was posted on the dedicated webpage [25]. Greece then submitted a summary of the updated draft plan for discussion in the Parliament a few weeks prior to the official submission. It is foreseen that the plan will be introduced before the Parliament to be debated and put into law, after the adoption of the Council Implementing Decision. Additional consultation with key stakeholders is foreseen, with a view to further engaging them in the implementation phase. At the same time, a series of public events are being planned to increase ownership of the Plan.

Technical support and InvestEU

Greece is planning to use the Recovery and Resilience Facility to request technical support from the Commission through the Technical Support Instrument (TSI), Horizon Policy Support Facility and to finance the national compartment of InvestEU. Greece plans to request technical support from the Commission through the Technical Support Instrument (TSI), with the support of the Recovery and Resilience Facility, according to Article 7(2) of the RRF Regulation. The technical assistance is expected to increase the resilience and response capacity of the Greek healthcare system by modernising the quality of healthcare management framework, in particular by supporting the drafting of National Strategy for Quality Assurance, Patient Safety and Patient Engagement. The total estimated cost for the technical support requested to support these organizational reforms in the health system is EUR 0.5 million. Greece is also planning to use the Recovery and Resiliency Facility loans to finance the Members State compartment of InvestEU for an amount of EUR 500 million. This is alongside the other ways of using the RRF loans, via international financial institutions, commercial banks and an equity platform. Sectoral support for the design, implementation and evaluation of research and innovation policy reforms will also be available via the Horizon Policy Support Facility.

The Technical Support Instrument (TSI) provides expertise in building capacities to implement the plan in a number of areas. These areas are clean energy, digital transformation,

[25] https://www.minfin.gr/web/guest/tameio-anakampses

state aid, health system reform, non-formal education, customs, financial literacy, as well as for the overall implementation of the plan.

Security self-assessment

The Greek plan includes a security-self assessment for investments in digital capacities and connectivity, in line with the Article 18(4)(g) of the RRF Regulation. As regards investment in connectivity, in particular in 5G networks, the plan identifies the relevant security issues. It also details how those will be addressed, based on the common objective criteria included in the EU toolbox for 5G networks Cybersecurity. Strategic measures mentioned in the security self-assessment would need to be closely monitored during the implementation of the plan.

Cross-border and multi-country projects

The plan includes several cross-border and multi-country projects, mainly under the digital pillar (see section 4.6). There are investment projects related to the digital and R&D, such as the '5G corridors' investment, that will also support the cross-border corridor Thessaloniki-Sofia-Belgrade and the 'Small satellites' investment, that will ensure interoperability with EuroQCI. In addition, the 'Submarine fiber cables' investment project will support the installation of submarine fibre cables to interconnect mainland Greece with its islands and with Cyprus. The plan also includes investing in a new high performance computing system (upgrading the existing one of the National Infrastructures for Research and Technology) and its interconnection with the EuroHPC supercomputers; the creation of a national Cybersecurity Operations Centre and its networking with similar centres of other Member States. It further includes the framework of the European Common Data Infrastructure Services and the interoperability of the cloud, i.e. the Supply of Central Cloud Computing Infrastructure and Services.

Communication strategy

The Communication Strategy described in the plan consists of:

- **Coherent and effective information to multiple audiences** regarding the reforms and investments undertaken by Greece under the Recovery and Resilience Facility, giving emphasis to audiences that «need to know» specific information to respond to the opportunities, obligations, etc. connected to the national recovery and resilience plan (people directly **affected** by investments or reforms included in the plan), including the wide dissemination of funding opportunities for potential recipients.
- **Increasing awareness of the plan's objectives**, tangible benefits, and impact on citizens' daily life.
- **Information access on funded projects and reforms of the plan**, facilitating the opportunity of any interested citizen or group to follow up on its implementation and thus promote the efficiency and transparency inherent to the national recovery and resilience plan, throughout the implementation period.
- **Informing, coordinating and supporting recipients to design and implement their own communication actions by providing guidelines, monitoring, and networking.**

- Introducing a citizen focused approach by telling project stories “on the ground” or locally to **mobilize community participation** and build up a sense of ownership of the plan.
- **Ensuring the visibility of EU funding** and provide the opportunity to citizens to fairly judge the difference made in their lives by the Recovery and Resilience Facility as both a national and an EU policy instrument.

A dedicated website for the national recovery and resilience plan and the related projects will be established in order to provide a single-entry point for all interested parties (institutional organisations, recipients, enterprises, media, general public) who wish to get information. In an effort to increase the visibility of the plan and the EU role and funding, the Communication Strategy will integrate multiple activities/channels, such as communication through traditional media and with a strong public relations communication strategy, through Digital Campaigns on different platforms. Moreover, the Communication Strategy seeks to bring the recovery and resilience plan closer to the citizens by translating technical terms into simple, clear and reliable messages.

State aid

State aid and competition rules fully apply to the measures funded by the Recovery and Resilience Facility. Union funds channelled through the authorities of Member States, like the RRF funds, become State resources and can constitute State aid if all the other criteria of Article 107(1) TFEU are met. When this is the case and State aid is present, these measures must be notified and approved by the Commission before Member States can grant the aid, unless those measures are covered by an existing aid scheme or comply with the applicable conditions of a block exemption regulation, in particular the General Block Exemption Regulation (GBER) declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 TFEU[26]. When State aid is present and it requires notification, it is the duty of the Member State to notify State aid measures to the Commission before granting them, in compliance with Article 108(3) TFEU. In this respect, the State aid analysis carried out by Greece in the recovery and resilience plan cannot be deemed a State aid notification. In as far as Greece considers that a specific measure contained in the recovery and resilience plan entails de minimis aid or aid exempted from the notification requirement, it is the responsibility of Greece to ensure full compliance with the applicable rules.

Irrespective of whether they comply with the EU’s State aid regime, measures taken under this framework should be compatible with the EU’s international obligations, in particular under World Trade Organization rules.

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[26] Commission Regulation 651/2014, OJ L 187, 26.6.2014, p. 1.

4. Summary of the assessment of the plan

4.1. Comprehensive and adequately balanced response to the economic and social situation

The plan follows a holistic approach to achieve recovery, while enhancing socio-economic resilience. Overall, the plan is balanced and focuses on Greece's main challenges that, besides the twin transition, relate to the country's social and educational needs, the strengthening of the public administration and the justice and financial systems, the enhancement of competitiveness in key sectors, as well as the need to boost the productive potential of the economy by promoting research and innovation and improving the business environment. Greece submitted its National Reform Programme on 27 April 2021. The information provided in the National Reform Programme is being considered and jointly assessed in this Staff Working Document together with the recovery and resilience plan.

Table 5 Coverage of the six pillars of the Facility by the Greek RRP components

	Green transition	**Digital transformation**	**Smart, sustainable & inclusive growth**	**Social and territorial cohesion**	**Health, and economic, social and institutional resilience**	**Policies for the next generation**
1.1 Power Up	●		○	●		○
1.2 Renovate	●		○	●		
1.3 Recharge and refuel	●		○			
1.4 Sustainable use of resources, climate resilience and environmental protection	●		●	●	○	
2.1 Connect		●	○			
2.2 Modernise	●	●		●		
2.3 Digitalisation of businesses		●	●			●
3.1 Increasing job creation and participation in the labour market	●	●	●	●	○	●
3.2 Education, vocational education, training, and skills	●	●	●	●	○	●
3.3 Improve resilience, accessibility and sustainability of healthcare	●	●	○	○	●	
3.4 Increase access to	○	●	○	●	●	●

effective and inclusive social policies						
4.1 Making taxes more growth friendly, and improving tax administration and tax collection	○	●	○		●	
4.2 Modernise the public administration		●	●		●	
4.3 Improve the efficiency of the justice system	●	●	●	○	●	○
4.4 Strengthen the financial sector and capital markets		●	○		●	○
4.5 Promote research and innovation	○	●	●	○		●
4.6 Modernise and improve resilience of key economic sectors	●	●	●	●		
4.7 Improve competitiveness and promote private investment and trade			●		●	
Loan Facility	●	●	●			
Total number of components that significantly contribute to pillar	**11**	**14**	**10**	**8**	**7**	**5**

Key: "●"component significantly contributes to the pillar; "○" component partially contributes to the pillar

Green transition

The recovery and resilience plan is designed to contribute to Greece's green transition. The plan seems aligned with the priorities of the European Green Deal, the 2030 climate targets and the goal for climate neutrality by 2050. The plan also aims to address the specific targets of Greece's National Energy and Climate Plan, and to incorporate the relevant Commission's recommendations. In synergy with the draft national and territorial Just Transition Plans, the recovery and resilience plan takes into account the need to ensure a just transition, in view of the planned phase-out of lignite, and to tackle the challenge of energy poverty.

Reforms and investments in pillar 1 are the main drivers of Greece's efforts towards green transition. Component 1.1 aspires for the transition to a low-carbon energy model, the reduction in greenhouse gas emissions and the increase in the use of renewable energy sources. Investments in this area are expected to contribute to increasing the resilience of the electricity network, and to enhancing electricity interconnections between the islands and the mainland. Further, the component is intended to promote Greece's national target for the total phase-out of lignite, mainly through a measure to restore the land and promote its alternative use, including for recreational and commercial purposes. Component 1.2 sets energy efficiency and climate mitigation and adaptation actions for Greece's housing stock as a key priority. The component includes reforms and investments that promote the energy-efficient renovation and upgrade of buildings, with specific funds allocated for energy poor households. Further, the component covers measures on the implementation of urban and spatial planning, and the development of strategic green urban regeneration projects. The component is also expected to contribute to the national and EU climate objectives linked to the reduction of greenhouse gas emissions, and overall improve the cities' resilience to climate change. Component 1.3 introduces reforms that enable the installation and operation of charging infrastructure for electric vehicles, in an attempt to move towards more green and sustainable transport. It provides for financial support for the installation of publicly accessible charging points for electric vehicles and foresees investments enhancing the electrification of urban and public transport. It also includes the development of the first CO_2 storage facility in the country. Component 1.4 includes actions related to waste and water management, protection of the environment (reforestation initiatives and protection of biodiversity), and upgrading the capabilities of the civil protection mechanism.

Components in other pillars also contribute in a complementary manner to the green transition. For example, component 2.2 supports the implementation of policies to reduce waste and energy consumption by setting a requirement for data centres to be compliant with the relevant European Code of Conduct. Components in pillar 3 on employment, skills and social cohesion contain measures that are intended to promote circular economy upskilling and reskilling programmes, and assist the unemployed, the working-age population and students in developing green skills and competencies. Component 4.3, with renovations and constructions of new energy-efficient and low-emissions court buildings, is expected to contribute to reducing Greece's energy footprint. Investments in component 4.6 concerning infrastructure and equipment renovations could decrease emissions and improve energy efficiency, while others target at the establishment of spatial and urban planning. Finally, the Loan Facility is designed to allocate at least 37% of the value of the loans' portfolio towards the green transition, including biodiversity.

Digital transformation

The recovery and resilience plan also contributes to Greece's digital transformation. The plan assigns a specific amount of funds to digital actions, while it appears aligned with key objectives of 'Shaping Europe's digital future'. These concern interoperability in the design of public services, connectivity and enhanced broadband connections, cybersecurity, artificial intelligence, development of digital skills, availability of open data, and the empowerment and equal participation of women, older people and vulnerable groups in the digital age. The measures are designed to improve Greece's position in connectivity and broadband coverage, as well as its overall digital performance.

Pillar 2 of the plan includes actions that enhance connectivity, and the digitalisation of public administration and businesses. Component 2.1 contains investments to facilitate the installation of fibre optic in buildings, the development of 5G networks covering all major Greek highways, the deployment of submarine fibre cables to connect mainland Greece with the Greek islands and Cyprus, and the utilisation of space technologies and applications. Reforms institute the framework needed to facilitate the switch to fast broadband connections and the transition to 5G technology. Measures in component 2.2 target the digital transformation of public sector entities (archives and enhanced digital services), business process improvements, increased interoperability between systems and data, cybersecurity and data governance strategies and policies, as well as extended use of advanced technologies (cloud computing and big data). Component 2.3 aims to boost the adoption of digital technologies by businesses (in particular SMEs) by tackling key challenges of digital inclusion. Initiatives will allow for the creation of the digital business ecosystem, and will support SMEs in obtaining digital services, data platforms and spaces, and new technology cash registers and Point-Of-Sale (POS) terminals.

Employment, skills and social cohesion measures further contribute to the digital transformation. Investments in component 3.1 concerning IT system integrations, services upgrades, and systems interoperability contribute to the digital transition in key sectors of the employment and social security public services. Component 3.2 aims at the development of e-learning and digitised training content to support the digital transformation of the education and training system, and at the establishment of new systems to enable the workforce to acquire digital skills. Component 3.3 provides for investments in the digital transformation of health, which aim at facilitating the deployment of sustainable digital healthcare solutions (including to deal with pandemics), the development of digital infrastructure and applications to utilise the skills of the medical and clinical workforce, and the modernisation and strengthening of governance. Component 3.4 also provides for digital reform elements, including simplification of access to social assistance schemes, enhancements in control and monitoring systems, and development of digital skills of staff in social welfare institutions.

Measures in pillar 4 target the digitalisation of public administration, the judicial and financial systems, and key sectors of the economy. Component 4.1 foresees the digitalisation of the national tax authorities through the replacement and upgrade of core digital systems, the introduction of automated office and work processes, the digitalisation of audits and controls, as well as the update and improvement of taxpayer e-services. The creation of new integrated IT systems in the public administration, through the upgrade of existing digital infrastructure, as well as through enhanced systems' interoperability, are described in component 4.2. Component 4.3 contains reforms and investments focused on the digitalisation of the judicial system, including the digital integration of the systems of courts and the Ministry of Justice, the upgrade of control management mechanisms, and the implementation of smart infrastructures. Component 4.4 introduces digital systems, technologies and infrastructures (e.g. credit bureau, registries) that are expected to assist in monitoring financial market information and credit expansion, removing information asymmetries, and improving the IT infrastructure of the supervisory authority. Development of advanced digital technologies, and enhanced coordination of competent authorities for civil protection are envisaged through an investment in component 4.5. Component 4.6 contains actions on digital solutions tailored to key economic sectors, namely tourism, culture, agriculture, manufacturing and aquaculture, as well as national transportation and logistics infrastructure. Finally, the Loan Facility is designed to allocate at least 20% of the value of the loans' portfolio towards the digital transformation.

Smart, sustainable and inclusive growth, including economic cohesion, jobs, productivity, competitiveness, research, development and innovation, and a well-functioning internal market with strong SMEs

Investments in the plan have the potential to enhance productivity and foster smart and sustainable growth. The plan contains a series of measures that are expected to directly or indirectly support private investments, including for SMEs. For instance, Public Private Partnerships for large infrastructure projects on irrigation and flood mitigation, civil protection, and upgrading of rail network, are foreseen in components 1.4 and 4.6. Support measures under component 2.3 aim towards the digital transformation of SMEs, including through digital upskilling and integration of new technologies to support e-commerce and e-invoicing. A number of aid schemes and upskilling programmes are also included in component 4.6, which target at fostering greater productivity, through smart and energy-efficient solutions and promoting trade in key areas for Greece (such as aquaculture, processed agricultural products, cultural tourism, and manufacturing). Further, the Loan Facility will provide loans as incentives for private investments that will be distributed through financial institutions, the deployment of an equity platform, and InvestEU. The funds will be directed to long-term private sector investments and finance projects with positive expected rate of return.

With reference to smart and inclusive growth, important interventions are introduced to stimulate R&D performance, increase employment, and link skills to jobs. Component 4.5 targets at enhancing public and private investment in R&D, strengthening the links between science and business, developing R&D infrastructure, and encouraging innovative companies to invest in R&D. Through these, it is envisaged to increase competitiveness and the exploitation of intellectual property rights, empower the start-up innovation ecosystem, mobilise R&D expenditure, while reversing the 'brain drain'. Also related to job creation, component 3.1 aims at facilitating labour market activation to promote full-time employment and safeguard against unemployment. Finally, component 3.2 on education, training and skills, includes reforms at all levels of education with an overall aim to increase long-term employment and productivity by effectively addressing skills mismatch and creating a direct link between qualifications and labour market needs.

These measures are flanked by important reforms of the business environment. Specifically, component 4.7 provides for the introduction of tax incentives, cooperation to promote economies of scale and extroversion of enterprises, the simplification of key administrative processes such as registering property and obtaining construction permits, and improvements in the quality of regulation particularly in areas such as manufacturing and logistics. Among others, proposed measures aim to support the sustainable development of agriculture and the promotion of Greek agricultural and food products. In addition, component 4.6 contains a reform of the legal framework on the attraction of strategic investments, including the creation of a new category of investments with additional incentives, the simplification and consolidation of the licensing procedure, and the inclusion of new fields of economic activity.

Broader reforms in the public administration and justice domains further contribute to sustainable growth. The plan provides for measures aiming at enhancing the efficiency of the public administration (mainly in component 4.2). These include the improvement of administrative capacity, the enhancement of coordination, and the implementation of public investment projects. Other reforms in this area target the public procurement framework, the continued modernisation of the public financial management framework, the strengthening of transparency, as well as the fight against corruption and illicit trade. The plan also contains critical reforms to increase the efficiency of the judicial sector (component 4.3). These measures, in conjunction with the ones indicated in the previous paragraphs, are integral to sustain growth and support productivity, competitiveness and a well-functioning internal market.

Social and territorial cohesion

Components in pillar 3 are designed to address challenges related to labour market participation and skills development. Component 3.1 encompasses the redesign and strengthening of active labour market policies, with the objective to promote labour market activation, facilitate the transition from unemployment to full-time employment, and provide an effective safety net against unemployment. In this respect, the proposed programmes provide subsidies for private sector employment, some of them combined with training, and target the most vulnerable segments of the labour force. Increase in the number of staff of the public employment service is expected to facilitate individualized approach to jobseekers. These reforms are complemented by passive labour market policies, including an incentives-compatible framework of unemployment benefits to disincentivise inactivity, and encourage employment-enhancing participation in upskilling and reskilling programmes. Component 3.2 includes a reform on the governance of training provision for upskilling, reskilling and lifelong learning, combined with investment in training programmes that cover the entire labour force, and aim at reducing skill mismatches and supporting the green and digital transition.

The plan contains certain measures that are expected to contribute to addressing the country's challenges in the area of gender equality and equal opportunities for all. These include several measures to enhance employment of women, including by expanding childcare facilities in municipalities and creating childcare units in companies. Equal opportunities are also promoted through measures to support labour market integration of the most disadvantaged groups with higher barriers to employment, such as refugees, beneficiaries of the guaranteed minimum income, homeless people, Roma or persons with disabilities. The plan also includes equality considerations in other measures, for example, early disability detection for children, touristic infrastructures accessible for persons with disabilities, thermal renovation of buildings to tackle energy poverty, training for diversity awareness, strengthened equality data collection, and addressing issues of debt and insolvency for the most disadvantaged households.

Investments in transport infrastructure, and energy and climate actions are expected to contribute to territorial cohesion. Component 4.6 contains a number of infrastructure investments across Greece's regions, which are intended to promote high-quality, multimodal, climate-resilient, and safe transport. Together with the reform of the regulatory framework of public contracts, this is expected to improve connectivity and ensure green transition in all parts of the country. This component also foresees measures to boost regional growth through interventions in the culture, tourism and agriculture sectors. In addition, the plan includes investments that are geographically distributed across Greece, such as: (i) upgrades in the electricity distribution network (component 1.1); (ii) green urban regeneration projects and energy upgrades in public sector buildings (component 1.2); (iii) reforestation, protection of biodiversity, wastewater management and treatment infrastructure, water supply and saving infrastructure, irrigation networks, flood protection projects (component 1.4); (iv) promotion of smart cities (component 2.2). Moreover, component 1.1 aims to promote the total phase-out of lignite and oil, while introducing integrated support measures (e.g. socio-economic and environmental rehabilitation) for the redevelopment of affected areas, in order to ensure a just transition.

Health, and economic, social and institutional resilience, with the aim of, inter alia, increasing crisis preparedness and crisis response capacity

Component 3.3 is the main vehicle to address long-term challenges of Greece's healthcare system that were exacerbated by the pandemic. The component mainly focuses on a set of investments, supported by reforms, to strengthen the national health system, facilitate access to health services, and promote the system's sustainability. The main building blocks include: (i) organisational reforms to rationalise the medical reimbursements, and establish a reliable performance framework; (ii) infrastructure investments in the primary health system, supported by measures to increase the present and future stocks of family doctors; (iii) the renovation and upgrade of the infrastructure of the national health system; (iv) the digital transformation of healthcare; (v) a national public health prevention strategy; (vi) a set of measures to rationalise pharmaceutical spending, including a revision of the clawback system and measures to support pharmaceutical R&D.

As regards social resilience, component 3.4 aims at increasing access to effective social policies. This is planned to be achieved mainly through measures to promote labour market (re)integration of the most vulnerable population groups and to increase availability of early childhood education and care. The component also foresees the enhancement of structures providing social assistance services, optimisation of social benefits and digital transformation of the social protection system. Diversity training in the public and the private sector to fight discrimination is also envisaged. In addition, there are pilot projects to develop personal assistance services for persons with disabilities and social housing. The aforementioned measures are expected to enhance access to social services, support vulnerable groups, improve their labour market participation, and thus mitigate adverse shocks from a social resilience perspective.

The plan also introduces actions to mitigate economic shocks by fostering sustainability of public revenues, strengthening financial sector resilience, and diversifying economic activity. Component 4.1 aims at fighting tax evasion, increasing public revenues, limiting lost revenue from smuggling, and reducing the administrative burden for taxpayers. This is planned to be achieved through reforms to codify tax legislation, combat smuggling, and increase electronic transactions, as well as investments to digitalise tax administration and audits. Component 4.4 includes upgrades to the IT infrastructure of the new insolvency framework to enhance adequate credit provision. The component also contributes to addressing information asymmetries, facilitating credit decision-making, and preventing over-indebtedness through the establishment of a credit bureau and registries. These measures are complemented by the codification and modernisation of the capital markets regulatory framework and the digitalisation of the supervisory authority, which are expected to contribute to resilience by enhancing access to finance. Moreover, component 4.7 includes targeted measures to facilitate the diversification of output toward more high-tech and more extroverted economic activities, and to improve the business environment, which are also anticipated to contribute to Greece's shock absorption capacity.

Institutional resilience can be achieved through actions to ensure efficient public administration and sound governance. Component 4.2 leads this effort by introducing reforms to streamline the governance and allocation of responsibilities between levels of the administration, invest in its human resources, modernise hiring procedures, promote upskilling and reskilling, and introduce a reward system for public entities and civil servants. The component also contains a comprehensive package of anti-corruption measures, including the development of methods for the detection and prevention of corruption, new legislative initiatives against corruption, the legal framework for Anti-Money Laundering and Combating the Financing of Terrorism (AML / CFT), and actions to protect intellectual property rights. Component 4.3 also aspires to promote institutional resilience by ensuring better and faster contract enforcement, through reforms to accelerate the administration of justice, the introduction of e-justice, as well as reskilling and upskilling of judges and judicial staff.

Policies for the next generation, children and the youth, such as education and skills

Reforms and investments across all levels of education aim at digitalising processes and infrastructures, developing skills, and facilitating cooperation and research. As regards primary and secondary education, component 3.2 features measures covering the digitisation of the education material, the integration of modern digital tools in schools, as well as financial support to disadvantaged students to acquire equipment. For vocational education and training, the main objectives concern the upgrade and alignment of relevant curricula with labour market needs, in particular the green and digital transition. In addition, the component foresees the upgrade of laboratory equipment for the various vocational education and training units. The measures extend to strengthening the apprenticeship system, updating the offered modules to increase their labour market relevance, and establishing evaluation systems to monitor training outcomes. For higher education, the component includes interventions to foster cooperation between Greek universities and universities abroad, enhance research activity in Greek universities especially in cooperation with businesses, and strengthen the link between higher education and the labour market. Moreover, component 4.5 contains measures to boost R&D investment and reinforce academia-business linkages, which are expected to improve Greece's performance in this domain and benefit future generations. For example, a reform in this component promotes the opening up of the research and innovation ecosystem, by linking the Greek innovation network at a broader scale, including research centres, innovation clusters, competence centres and highly innovative local companies.

Component 3.4 includes reforms and investments targeted to children and the youth. A key reform in this component is the design and introduction of a unified and comprehensive curriculum for preschool units. This will focus on early intervention, including the use of psycho-technical tools for early diagnosis of learning and developmental disorders. The reform is also linked to early intervention in children on the autism spectrum, which aims to support psycho-emotional development, the quality of life, and social inclusion of children. Moreover, a strategic goal of this component is the deinstitutionalisation of children and adolescents through the transfer of adolescents to supported living structures, their further support with skills programs, and development of foster care to increase the placement of children with disabilities in family environments. The component also provides for digital skills programs designed for children from twelve to fifteen years old.

Other components also contribute to policies for the next generation. Specifically, component 2.3 provides for a dedicated program to strengthen young entrepreneurship. Further, component 3.1 contains actions for the digitalisation of the public employment service and the upgrading of the labour market needs' diagnostic mechanism that are linked to the national youth guarantee implementation plan.

Conclusion

Taking into consideration all reforms and investments envisaged by Greece, its recovery and resilience plan represents, to a large extent, a comprehensive and adequately balanced response to the economic and social situation, thereby contributing appropriately to all six pillars referred to in Article 3 of the RRF Regulation, taking the specific challenges and the financial allocation of Greece into account. This would warrant a rating of A under the assessment criterion 2.1 in Annex V to the RRF Regulation.

4.2. Link with country-specific recommendations and the European Semester

In line with assessment criterion 2.2 in Annex V to the RRF Regulation, this section provides a factual overview of whether Greece´s recovery and resilience plan is expected to effectively address all or a significant subset of the country's economic and social challenges. These challenges are identified in the relevant Country-Specific Recommendations (CSRs) addressed to Greece in July 2019 and July 2020, including the fiscal aspects thereof, and recommendations made pursuant to Article 6 of Regulation (EU) No 1176/2011, based on the in-depth review for Greece under Article 5 of Regulation (EU) No 1176/2011 published in 2019 and 2020.

The Commission Communication on the findings of the 2021 in-depth review, published on 2 June, concluded that Greece is experiencing excessive imbalances. The 2021 in-depth review concluded that Greece's vulnerabilities continue to relate to high government debt, incomplete external rebalancing and high non-performing loans, in a context of high unemployment and low potential growth. Addressing these challenges is expected to significantly boost the growth potential of the economy of Greece in a sustainable manner. The COVID-19 crisis has interrupted the adjustment process initiated in previous years. The recent crisis has also brought to the fore the importance of bolstering the country's growth prospects in correcting the legacy imbalances and strengthening its economic and social resilience.

Against this background, the Country-Specific Recommendations addressed to Greece in 2019 and 2020 under the European Semester cover the following areas:

(1) *Public finances and health care*: The authorities are called on to adopt appropriate fiscal response measures to effectively address the impact of the pandemic, sustain the economy and support the ensuing recovery, including by strengthening the resilience and accessibility of the health system. When economic conditions allow, Greece is invited to pursue fiscal policies aimed at achieving prudent medium-term fiscal positions and ensuring debt sustainability, while enhancing investment.

(2) *Labour market and social policy*: The recommendations stress the need for measures such as short-time work schemes and the provision of effective activation support to mitigate the employment and social impacts of the crisis.

(3) *Public and private investment*: Greece is invited to provide continued liquidity to COVID-19 affected businesses. It is also recommended to front-load mature public investment projects and promote private investment in areas that will facilitate the green and digital transition, support employment and raise labour productivity, focusing, in particular on the areas of sustainable transport and logistics, clean and efficient production and use of energy, environmental infrastructures, digital technologies, human capital development and the renewal of urban areas. Within this context, improving the effectiveness and digitalisation of the public administration and promoting digital transformation of businesses would be key.

(4) *Structural reforms to improve the functioning of the economy*: The authorities are encouraged to implement structural reforms in particular in the areas of fiscal and fiscal-structural policies, social welfare, financial stability, labour and product market, and the modernisation of public administration.

The reforms and investments to be implemented under the Recovery and Resilience Facility, along with other EU support, represent a major opportunity to remove impediments to growth and thereby support the correction of the identified macroeconomic imbalances, while promoting a more inclusive and sustainable growth model. The plan builds on the reform agenda initiated under the economic adjustment programmes and currently monitored under enhanced surveillance, including the tax administration reform, social, healthcare and business environment reforms as well as reforms and investments strengthening the public administration and the justice system. The plan further contains several institutional and structural reforms to support entrepreneurship, private and public investment and productivity growth. It provides incentives to help companies grow, innovate and trade better, while tackling inefficiencies in public administration and promoting a more business-friendly tax system. The plan is centred on the objective of favouring a digital and green transition.

Public finances and health care

The increased financing needs due to the COVID-related public support measures have widened the government deficit and increased public debt. In 2020, the general government budget was in a deficit of 9.7% of GDP, while the government debt increased to 206% of GDP. Greece has responded swiftly to address the impact of the pandemic, sustain the economy and support the ensuing recovery. The authorities have put forward a wide range of short-term measures, including tax and social security contribution deferrals, fiscal measures, and the provision of liquidity guarantees, to provide income support to individuals, maintain liquidity in the private economy and prevent job dismissals (Section 2.1).

In line with the country-specific recommendation, the plan can play a key role in promoting investments going forward. Given its strong focus on employment, investment and productivity-enhancing policies, the implementation of the plan is expected to raise growth and thus contribute to putting public finances on a sound footing in the medium to long term. Moreover, the plan presents a range of reforms to make taxes more growth-friendly and improve the tax administration and tax collection, including by further increasing the use of electronic transactions, accelerating refunds of the value added tax, and limiting the misallocation of resources towards the informal sector. These reforms are complemented by investments to support the digitalisation of the Independent Authority for Public Revenue (IAPR) and tax audits, aiming to eliminate lost revenue from smuggling, and reduce the administrative burden for taxpayers. The plan also envisages measures to improve public financial management, including through digitalisation, reforms of public procurement and a modernisation of the institutional framework for state-owned enterprises.

In response to the challenges in the healthcare system, the plan envisages significant investments in upgrading the infrastructure of the hospital system and improving several of its operational aspects, while promoting access, efficiency and resilience of the healthcare sector more broadly. Key weaknesses of the healthcare system are reflected in a still weak and understaffed primary healthcare sector and an underdeveloped long-term care sector, which lead to unmet needs. This is aggravated by persistent supply-induced demand for healthcare and weaknesses in the centralised procurement system for healthcare expenditure (Section 2.2). In view of these challenges, the plan aims to strengthen the primary healthcare sector, promote prevention services with a comprehensive national programme for public health that will also support preparedness, increase the capacity of the health care system to deliver mental health and home care services, rationalise pharmaceutical spending and support pharmaceutical R&D. Another important element of the plan are the ambitious measures to digitalise healthcare systems and services with a view to expanding access to services and improving public spending efficiency.

Labour market and social policy

While the pandemic has had a relatively limited impact on the unemployment rate thanks to the effective policy response, the labour market continues to face significant challenges. Unemployment remains among the highest in the EU, while employment is among the lowest. The challenges further include high youth unemployment, a high gender employment gap and a large share of long-term unemployed. Despite the improvements ahead of the pandemic, labour productivity remains weak and the effectiveness of the activation support, beyond the short-time work schemes implemented during the COVID-19 crisis, is low, partly due to capacity constraints of the Public Employment Service (Section 2.2).

The plan contains a number of measures to support employment. The plan presents a series of targeted hiring subsidies, upskilling programmes including in the digital and green economy, and measures to enhance the administrative capacity of the Public Employment Service (OAED) including by expanding its digital services. These measures are of a broad scope and are expected to contribute to addressing the country-country specific recommendation that calls on

Greece to ensure effective activation support in order to mitigate the employment and social impact of the health crisis. At the same time, there is further room to ensure effective provision of tailor-made activation support to the unemployed on a continuous basis. Furthermore, the plan envisages the adoption of a Labour Code reform to modernise key aspects of the labour market and improve its functioning. These measures are complemented by reforms of passive labour market policies, including in the form of a new incentives-compatible ‘mutual obligations framework’, which aims to improve adequacy of the unemployment insurance system while mitigating disincentives to participate to trainings.

The plan effectively addresses most of the challenges facing the Greek education system and puts emphasis on labour market integration of vulnerable groups. To recall, Greece ranks low in basic skills partly due to teaching weaknesses, and education outcomes are highly affected by the students’ socioeconomic background, while the education system does not correspond fully to the needs of the labour market (Section 2.2). The plan includes several measures to improve the quality and labour market relevance of education at all levels and to expand distance learning opportunities as a means to improve access to education. The plan further contains a thorough reform of the lifelong-learning system and a large volume of investments in upskilling and reskilling programmes with a particular focus on the green and digital transition. The effectiveness of these programmes will crucially depend on the reform of the life-long learning system and the extent to which it will help ensure high quality and labour market relevance of offered programmes, accountability of providers and appropriate selection of participants. Among others, the plan aims to promote diversity awareness and support social integration of vulnerable groups, including persons with disabilities and homeless people, Roma and the extremely poor through labour market activation. It puts high emphasis on gender equality and promotes participation of women in the labour market including through targeted employment subsidies and upskilling programmes, and by expanding childcare facilities. Last but not least, the plan contains measures to ensure a socially just transition in areas where lignite-based electricity generation will be gradually phased-out, while it allocates specific funds to support energy poor households through investments that promote energy-efficient renovation and upgrading of buildings.

Public and private investment

The plan puts particular emphasis on front-loading mature public investment projects and promoting public and private investments in priority sectors, including those contributing to the digital and green transition. Implementation of large public infrastructure projects has persistently suffered from the lack of an effective planning and monitoring system (Section 2.2). In response, the plan seeks to strengthen the policy and planning coordination framework by modernising public administration, procurement and the public accounting system, and by strengthening the fight against corruption. At sectoral level, in line with the country-specific recommendation, the plan presents a number of investments promoting renewable energy and electricity interconnection, increase the energy performance of public, residential and non-residential buildings, the renewal of urban areas, safe and sustainable transport and logistics, environmental protection and infrastructure, very-high-capacity digital infrastructure, the digitalisation of the public administration, the digital transformation of businesses, and research and development. These measures are complemented by the establishment of the loan facility, which caters for the distribution of the loan component of the plan through financial institutions, an equity platform, and InvestEU, and creates financial incentives for the private sector to increase private investments.

Overall, the plan addresses the challenges related to energy efficiency and the renewal of urban areas. Energy consumption of Greece's public and private buildings accounts for almost 40% of total final energy consumption, which points to the need for deep renovations to achieve savings, while energy poverty is a pressing social challenge (Section 2.3). To respond to these challenges, the plan aims to enhance the energy performance of buildings, with a focus on the residential sector, including energy poor households. The plan also includes reforms aiming to ensure the financial sustainability of the renewable energy sources (RES) system, further simplify the RES licensing procedure and introduce specific energy market reforms, including the establishment of a monitoring mechanism by the national energy regulator. Moreover, the plan will help address the country-specific recommendation on the need to renew urban areas, mainly through the reform of local urban planning covering all territories of the country.

The plan presents measures that will be instrumental in addressing challenges related to sustainable and safe transport, with complementing efforts to expand logistics infrastructures that are supported by other EU financing resources. Transport is responsible for 21% of the national greenhouse gas emissions and accounts for the largest share in the final consumption of energy (41%). The Greek fleet is among the oldest in Europe, and heavily dependent on oil, while the e-mobility market is at an early development stage. Greece also ranks low in terms of road safety (Section 2.3). The plan seeks to tackle both environmental and safety aspects of the transport system. It includes measures to install more than 8 000 charging stations for electric vehicles, replace a number of busses and taxis with battery electric vehicles and provide targeted support for new production-related activities in the e-mobility sector. The plan also contains a significant reform of the railways sector and several rail projects, contributing to switching from fossil fuel road-based transport into more sustainable transport modes. Furthermore, Greece's competitive advantage in maritime transport is likely to be enhanced through the development of a masterplan for the renewal of the Greek passenger shipping fleet and selected interventions in regional and tourist ports. Last but not least, the plan complements investments in logistics that are supported by EU financing resources other than the RRF, such as the European Structural Investment Funds (ESIF) or the Connecting Europe Facility (CEF).

The plan includes a number of measures aiming to strengthen environmental protection and builds synergies with complementary measures supported by other EU financing resources. Greece faces substantial challenges in this area, reflected in a weak solid waste management system and suffers from inadequate supervisory structures and the lack of appropriate regulatory frameworks for water and waste management (Section 2.3). Several investments are envisaged in the plan to improve water supply and wastewater treatment in several territories of the country. The setup of a national waste management supervisory body and a national water regulatory authority will increase the accountability of the operators, strengthen the governance architecture and ensure financial sustainability in both solid waste and water sectors, respectively. Moreover, the plan contains a comprehensive programme of civil protection and disaster management aiming both at improving resilience towards climate change and natural risks and at responding to natural disasters, including forest fires, floods and earthquakes. The plan also includes measures aiming to 'green', modernise and enhance the competitiveness of the agricultural sector including by upgrading the irrigation networks complementing actions under the Common Agricultural Policy. Last but not least, the plan complements investments in environmental infrastructures that are supported by EU financing resources other than the RRF, notably the European Structural Investment Funds (ESIF).

The plan is likely to help address challenges related to the low digitalisation of both the public administration and the business sector. Albeit improving over time, Greece's digital performance remains among the lowest in the EU and is characterised by a combination of shortfalls in connectivity, digital skills, digital uptake by companies, provision of digital public services, low investment in R&D, and the absence of smart public transport solutions (Section 2.3). Following up on the recent work to improve digital governance and the provision of digital public services, the plan contains a number of measures to digitally transform the public administration, including the justice system and the tax and customs authority, and promote interoperability of public sector systems and registries, which is limited. The plan also presents investments in the digitalization of businesses through the deployment of advanced digital infrastructure and relevant technology advisory services, the development of digital skills in small and medium sized enterprises and the promotion of a business ecosystem conducive to the integration of new technologies and innovation.

The plan builds on and complements efforts to ease doing business and facilitate trade. Greece is one of the countries with the lowest business dynamism in the EU. Productivity growth faces significant obstacles that include high regulatory barriers and inefficiencies in the public administration – especially in areas such as contract enforcement and registering property, the licensing process, and environmental permits – coupled with the time needed by the justice system to deliver its final decisions as well as lack of clarity on the application of tax rules. One of the key objectives of the plan is to facilitate trade and provide incentives for firms to grow and innovate. Several measures support private investment either directly by encouraging investments in modern digital technologies and using tax incentives on tangible and intangible assets, or indirectly, by promoting an improved business ecosystem conducive to innovation. The plan aims to lift excessive administrative burdens on businesses by expanding simplification of licensing procedures to a number of economic sectors, while fostering compliance and a level-playing field through effective market surveillance, and an improved regulatory framework. The plan also puts emphasis on improving the framework for public procurement, building on a recent reform (law 4782/2021), and promoting public-private partnerships.

Broader structural reforms to improve the functioning of the economy

The plan builds on and complements key structural reforms that were initiated under the economic adjustment programmes to improve the broader functioning of the economy. The reform agenda emerging from the plan is based on the Development Plan for the Greek Economy, prepared by a committee of experts chaired by Nobel-prize economist Professor Pissarides. In particular, the plan contains important reforms in key areas, such as fiscal structural including the tax administration and public procurement; labour market, social benefits and health care; education, the financial sector and business environment; and modernisation of the public administration, justice and fight against corruption. Some of its key elements include the following reforms and supporting digital investments: a) the improvement and modernisation of the labour law, b) the establishment of a National System of Vocational Education and Training, c) the roll out of the primary health care system and e-health – including an electronic Medical Health Record and telemedicine, d) the digitalisation of various processes of the Independent Authority of Public Revenue including online cash registers and the acceleration of VAT refunds, as well as the codification and simplification of tax legislation; e) the implementation of the electronic filing of legal documents, completing phase II of the establishment of the e-justice system (OSDDY-PP) and the 'JustStat' unit for data collection and processing, f) the implementation of reforms aimed at bolstering the health of the banking system, including non-performing loans resolution efforts by ensuring the effectiveness of the relevant legal framework, and g) initiatives to complete the investment licensing reform, by finalising the simplification of procedures in the agreed remaining sectors and inspection legislation. While these measures build on and complement reforms initiated under the economic adjustment programmes which are partly still ongoing, the reforms and investments included in the recovery and resilience plan go beyond specific commitments made by Greece in the Eurogroup in 2018 both in their scope and in their timeframe. Policies addressing specific Eurogroup commitments continue to be monitored under enhanced surveillance.

Conclusion

Taking into consideration the reforms and investments envisaged by Greece, the recovery and resilience plan is expected to contribute to effectively addressing a significant subset of economic and social challenges identified in the country-specific recommendations, including the fiscal aspects thereof, and recommendations made pursuant to the Macroeconomic Imbalances Procedure[27]. This would warrant a rating of A under the assessment criterion 2.2 in Annex V to the RRF Regulation.

[27] These macroeconomic imbalances refer to the recommendations made pursuant to Article 6 of Regulation (EU) No 1176/2011 in 2019 and 2020.

Table 6 Mapping of country challenges identified in 2019-20 country-specific recommendations and the 18 components of the Greek recovery

Country challenges (as identified in Section 2)	**Associated European Semester country-specific recommendations CSR (2019-2020)**	**Component 1.1. Power up**	**Component 1.2. Renovate**	**Component 1.3. Recharge and refuel**	**Component 1.4. Sustainable use of resources, climate resilience and environmental protection**	**Component 2.1. Connect**	**Component 2.2. Modernise**	**Component 2.3. Digitalisation of businesses**	**Component 3.1. Promote job creation and participation in the labour market**	**Component 3.2. Education, vocational education and training, and skills**	**Component 3.3. Improve resilience, accessibility and sustainability of healthcare**	**Component 3.4. Increase access to effective and inclusive 3.5social policies**	**Component 4.1.Making taxes more growth friendly and improving tax administration and tax collection**	**Component 4.2. Modernise public administration**	**Component 4.3. Improve the efficiency of the justice system**	**Component 4.4. Strengthen the financial sector and capital markets**	**Component 4.5. Promote research and innovation**	**Component 4.6. Modernise and improve resilience of key economic sectors**	**Component 4.7. Improve competitiveness and promote private investments and trade**
Fiscal sustainability																			
Fiscal policy and fiscal governance, including measures to ensure long-term sustainability of public finances, while enhancing investment	2019.1, 2020.1.1, 2020.1.2						○						●	○	○	○		○	○
Health care and long-term care, including measures	2019.1, 2019.2.8, 2020.1.2,										●								

to strengthen the resilience of the health system and ensure adequate and equal access to healthcare	2020.1.3																		
Labour market and social policies																			
Implementation of employment-supporting measures such as short-time work schemes	2019.1, 2020.4, 2020.2.1								●										
Incentives to work, job creation, labour market participation and effective activation support.	2020.2.2								○			○							
Poverty reduction and social inclusion	2019.1, 2020.2.1, 2020.4		○									●							
Policies supporting investment in digital and green transition and in particular, in the following areas																			
a) Safe and sustainable transport and logistics	2019.2.1, 2020.3.4			●														○	
b) Clean and efficient production and use of energy, including renewable energy and interconnection projects	2019.2.2, 2020.3.5	●	●	●															
c) Environmental infrastructure	2019.2.2, 2020.3.6				○														
d) Very-high capacity digital infrastructure and	2019.2.3, 2020.3.7					●	●	○					○	○	○				

digital technologies																			
e) Promote digital transformation of businesses	2020.3.10					●		●					●		●				●
f) Education	2019.2.5									●		○							
g) Skills, including digital skills and employability	2019.2.6, 2019.2.7, 2020.3.8								●	●		○			○			○	
h) Research and Development	2019.2.4									●							●		
i) Renewal of urban areas	2019.2.9	●	○	●	●							○							
Public administration and business environment																			
Front-load mature public investment projects	2020.3.2													●				●	
Improve the effectiveness and digitalisation of the public administration	2020.3.9				○	●	●		●	●	●	●		●	●			○	
Swiftly deploy measures to provide liquidity and continued flow of credit and other financing to the economy, focusing in particular on small and medium-sized enterprises most affected by crisis.	2020.3.1															●		○	●
Promote private investment to foster the economic recovery	2020.3.3		●	●				○	○	○	○	○	○	○	○	○	○	○	●
Broader functioning of economy																			
Pursue structural	2019.1,	○			○		○		●	●	●	●	●	●	●	●		○	●

reforms in key areas, such as fiscal structural including the tax administration and public procurement; labour market, social benefits and health care; education, the financial sector and business environment; and modernisation of the public administration, justice and fight against corruption.	2020.4																		

Note: "●" denotes that investments and reforms of the component significantly address the challenge; "○" denotes that investments and reforms of the component partially address the challenge.

4.3. Growth potential, job creation, economic, institutional and social resilience, European Pillar of Social Rights, mitigating the impact of the crisis, and social territorial cohesion and convergence

In line with assessment criterion 2.3 in Annex V to the Regulation, this section summarises the assessment of the expected contribution of the plan to strengthening the growth potential, job creation, and economic, social and institutional resilience of the Member State, contributing to the implementation of the European Pillar of Social Rights, including through the promotion of policies for children and youth, and to mitigating the economic and social impact of the COVID-19 crisis, thereby enhancing the economic, social and territorial cohesion and convergence within the Union.

The plan builds upon and is consistent with the comprehensive Development Plan for the Greek economy, prepared in 2020 by a committee led by the Nobel laureate, Professor Pissarides. As such, it addresses the main obstacles affecting long-term growth in Greece, including notably the investment gap, measures required to increase productivity and the need to improve the quality of education and the efficiency of public administration and of justice. The plan's strong emphasis on active labour market policies, reskilling and upskilling has a potential to increase labour market participation and employment (including that of women), which is welcome, considering the still high rate of unemployment.

In the short to medium term, model simulations estimate an increase in the baseline average annual GDP growth of 0.3-0.5 percentage points over the period 2021-2026 as a result of the implementation of the recovery and resilience plan, without the possible positive impact of structural reforms (see Box 2). The overall increase in GDP is projected to reach 2.1-3.3% by 2026. Through its growth impact, the recovery and resilience plan is also expected to provide support for Greece to achieve the planned primary surpluses needed to ensure the overall sustainability of Greece's public finances.

Box 2 Stylised NGEU impact simulations with QUEST - Greece

Model simulations conducted by the Commission using the QUEST model show that the economic impact of the NGEU in Greece could lead to an increase of GDP of between 2.1 and 3.3% by 2026.[28] After 20 years, GDP could be 1.2% higher. Spillovers account for a large part of such impact.

According to these simulations, this would translate into up to 62 000 additional jobs. Cross border (GDP) spillovers account for 0.3 pps in 2026, showing the value added of synchronised expenditure

[28] RRF amounts to roughly 90% of NGEU, which also includes ReactEU, Horizon, InvestEU, JTF, Rural Development and RescEU.

across Member States (line 2). Even in a scenario with a lower productivity of NGEU funds, it would still lead to a significant impact (line 3)[29].

Table 1: QUEST simulation results (%-deviation of real GDP level from non-NGEU case, linear disbursement assumption over 6 years)

Scenario	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2040
Baseline	1.6	2.7	2.7	2.8	3.0	3.3	2.3	1.5	1.7	1.8	1.2
of which spillover	*0.3*	*0.4*	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*	*0.2*	*0.2*	*0.1*	*0.0*
Low productivity	1.4	2.3	2.1	2.0	2.1	2.1	1.1	0.2	0.4	0.6	0.5

This stylised scenario does not include the possible positive impact of structural reforms, which can be substantial. A model-based benchmarking exercise shows that undertaking structural reforms that would result in halving the gap vis-à-vis best performers in terms of indicators of structural reforms could raise Greece GDP by 18% in 20 years' time, more than the 11% found for the EU average, the difference reflecting the relatively larger gaps towards best performers in Greece[30].

Due to the differences in the assumptions and methodology, **the results of this stylised assessment cannot be directly compared to the numbers reported in chapter 4 of Greece's RRP.**

The plan presents a detailed analysis of the overall impact of the proposed reforms and investments. In compliance with the guidance, it includes a macroeconomic and social outlook, which is followed by the discussion of the macroeconomic and social impact of the plan as a whole. The methodology of the macroeconomic estimations is described in detail, both for the estimations carried out by the Bank of Greece and for the one done by the Council of Economic Advisers. The document presents arguments on the sustainability of the planned investments and reforms, but it does not elaborate in detail on the aggregate impact on social and territorial cohesion. The full impact is then compared to the investment baseline.

Fostering economic growth and jobs

The plan includes a wide set of investments and reforms that contribute to economic growth and increasing employment. The growth stimulus provided by the measures financed by non-repayable financial support is estimated at over 1% of GDP already in 2021 which is an important contribution to the economic recovery in the aftermath of the pandemic.

[29] Technically, the low productivity scenario considers a significantly reduced output elasticity of public capital.
[30] Varga, J, in 't Veld J. (2014), "The potential growth impact of structural reforms in the EU: a benchmarking exercise ", European Economy Economic Papers no. 541.
http://ec.europa.eu/economy_finance/publications/economic_paper/2014/pdf/ecp541_en.pdf.

Several measures aim to improve productivity. Even before the pandemic, Greece's growth performance had been anaemic, and the economy was facing several challenges to its growth potential, which have been discussed in section 2.2 of this document. One of the main factors is the low productivity of Greek firms. Component 4.7 is expected to address several causes of this issue. It includes actions to simplify the business environment, to further improve the ease of doing business and to incentivise productivity growth through the development of the legal framework to facilitate the increase of average company size through mergers and acquisitions. Also, the plan provides important financial incentives to private investment under the loan facility, which the authorities expect to provide an additional percentage point increase in GDP growth already in 2021. These efforts are complemented by component 2.3, which is expected to improve the digitalisation of small and medium sized business and thus is expected to create a good momentum in improving productivity. Finally, component 4.5 provides an important contribution through the promotion of research and innovation through strengthening the relations of the corporate and the scientific sectors and through increased public-private cooperation in research and development, including supporting of start-ups.

Productivity is also expected to improve by increasing the openness of the economy, thus better exploiting Greece's comparative advantages and exposing the economy to higher competition thereby incentivising improvement in competitiveness. Component 4.7 has elements that are expected to improve the extroversion of the economy through promoting larger company size, and component 4.6 takes important steps in this regard too. Recognising some of Greece's most characteristic industries: tourism, culture and agri-food, it promotes important infrastructural and skill upgrades in these sectors which could lead to increased and more diversified added value from these sectors. The same component is also expected to improve trade facilitation and includes various reforms aiming to increase investment in smart technologies in manufacturing, which could be key for productivity enhancement.

The plan contains measures to improve public investment management. Greece has been suffering from lack of planning and monitoring system for implementing large infrastructure projects. This challenge is addressed by component 4.2 which aims to speed up the implementation of public investment projects through enhancing the policy and planning coordination, and modernising public administration, procurement, and accrual accounting while also strengthening the anti-corruption framework. These are expected to be instrumental in delivering all the public investments described in the plan in a timely and efficient manner.

Important steps are taken to improve the tax administration and the efficiency of the judicial system. High tax burden, tax compliance, red tape, regulatory burden and slow justice system have also been long-standing challenges for potential growth. While the Recovery and Resilience Facility cannot be used directly to reduce taxes, the plan submitted by the authorities includes reforms that pave the way towards a more efficient tax system through the reduction of tax evasion, spearheaded through the digital transformation of the Independent Authority for Public Revenue, which could also allow for creating a more growth-friendly tax environment later on. In particular, component 4.1 introduces a set of wide-ranging reforms and investments that are expected to improve tax administration and collection through digitalisation and simplification of the tax legislation. This component has synergies with component 2.3 which promotes the digitalisation of businesses which will facilitate the digitalisation of the tax collection and oversight. Component 4.2 includes initiatives that reduce administrative and regulatory burden, while continuing the efforts to modernise the public administration. The plan also includes an ambitious agenda to improve the quality and the efficiency of the justice system. Component 4.3 is expected to continue the digitalisation of judicial procedures and foresees a revision of the judicial map for administrative, civil and criminal courts to align it with the needs of the 21st century. This is accompanied by an upgrade the existing infrastructure and measures to improve the skills of judges and judicial staff and to accelerate justice administration.

A new and cheaper pool of financing will become available for Greek firms. The Loan Facility (component 4.7) addresses the lack of available and affordable financing. Greek banks still face high non-performing loan ratios and other constraints, which limit their lending activity and increase the lending rates. The Loan Facility is expected to make financing both cheaper and more available. The amounts of the Recovery and Resilience Facility loans are passed on to the private sector principally through on-lending via international financial institutions and commercial banks. By passing on the favorable lending rates of the loans of the Facility, the average interest charged to companies will be lower, and by sharing the expected losses with banks and lending institutions, the availability of financing will increase. The participation of the beneficiary with a small amount of the total investment, ensures the appropriate incentive structure among all parties, mitigating any moral hazard concerns. This Loan Facility is expected to provide significant boost to private investments with a focus on green transition and digital transformation. According to the authorities' estimation, it will provide larger growth stimulus than the investments financed through non-repayable financial support. The actual growth impact will crucially depend on the take-up rate of these loans, and also on the possible crowding out of bank lending.

Beyond the measures directly addressing the challenges identified in section 2.2, and which are mostly covered under the investments and reforms of the fourth pillar, the recovery and resilience plan proposes several measures that are conducive to growth and employment. Investments under pillar one, the green transition, promote growth and productivity through cheaper and more sustainable energy and through better management of natural resources. This includes the reform of renewable energy sources, the renovation of residential buildings, and a horizontal scheme to support industrial units being established to support the low-carbon economy. The measures under pillar two, the digital transformation, generate the conditions for a number of other reforms to be more effective and efficient for both the public and the private sector. Measures under pillar three, employment, skills and social cohesion, aim to ensure that the recovery and the development going forward happens in an inclusive manner.

The Greek authorities have provided an estimation of the direct growth impact of the plan for each measure. This quantification was done by a static input-output model, excluding endogenous effects on total factor productivity and assigning little or no impact of reforms. This quantification was done by the Centre of Planning and Economic Research (KEPE). As the authorities point out, these calculations should be treated with caution, and should not be considered to reflect the aggregate impact of the plan which was estimated by the Bank of Greece. The calculations are nevertheless useful in showing the direct impact of each measure and the relative impulse of the different pillars. Based on the results, the measures under pillars one and four are expected to have the larger direct economic impact both in terms of GDP and employment, while the measures under pillar two are expected to have the smallest direct economic impact. These impacts are broadly proportional to the cost allocation to the different pillars. On a measure level, KEPE's estimation assigns positive growth and employment impacts to 140 measures out of the 167 measures included in the analysis.

The investments foreseen under the recovery and resilience plan are expected to increase public investment substantially. Public investment in Greece has been low since the global financial crisis. While public investment between 1995 and 2009 had been hovering around 5% of GDP, it has dropped to an average of 3% between 2010 and 2020. This drop is to a large extent explained by the reduced national spending on investments due to budgetary constraints and to the low absorption rate of the EU structural funds in the early years of the 2014-2020 programming period. According to the Commission's 2020 autumn forecast, which did not include the investments under the Recovery and Resilience Facility, public investment would have reached 4% of GDP in 2021-2022. Based on the analysis included in Table 4b of the plan, growth enhancing expenditure as a share of GDP would be on average 1.6 percentage points higher due to the measures financed through non-repayable financial support of the Recovery and Resilience Facility compared to the baseline. This is broadly in line with the additional impact assumed by the Commission's 2021 spring forecast, which expects public investments to reach 5% of GDP in 2021 and 6% in 2022.

Strengthening social cohesion

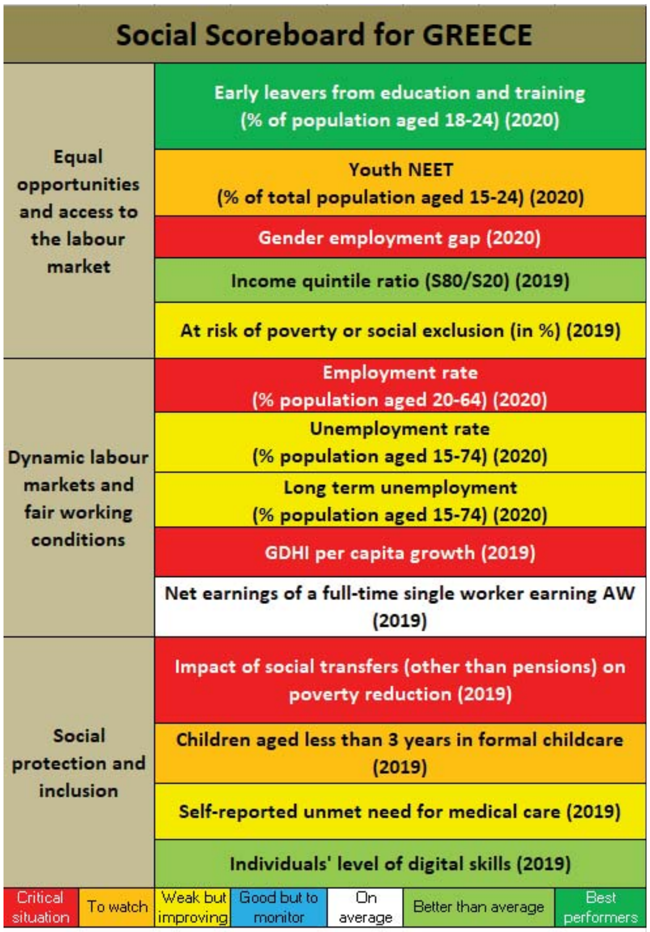
The scars on employment caused by the global financial crisis had not been healed before the current pandemic crisis. Employment and participation levels have been low, and unemployment is still the highest in the EU despite its downward trend since 2013. Youth unemployment and long-term unemployment have been particularly and persistently high, which is detrimental to social cohesion.

The recovery and resilience plan presents a comprehensive set of measures to address labour market deficiencies and to improve social cohesion. These policies include investments in human capital, activation policies and social services, fighting inequalities, modernising the labour market, and increasing social inclusion. The plan provides a detailed mapping of selected interventions to address the vulnerabilities identified by the Social Scoreboard. According to the estimation of the plan, the implementation of all its measures could lead to 180 000 – 200 000 new permanent jobs.

Measures under the third pillar of the plan provide the backbone of strengthening social cohesion and contribute to the European Pillar of Social Rights by improving several labour market and social indicators. The measures of component 3.1 aim to build capacities of employment and social structures, strengthen institutions and reduce vulnerabilities to shocks through a thorough revision of the labour code, and improvements in public administration efficiency (digitalisation of employment and social security systems and better labour market monitoring). The investments in active labour market policies and reforms of passive labour market policies to remove disincentives to participation are conducive to reducing unemployment and increasing employment. They include programmes of hiring incentives combined with upskilling, designed in line with the Commission Recommendation on an effective active support to employment following the COVID-19 crisis (EASE). Component 3.2 improves the quality of human capital through increased spending on education, training, reskilling, and upskilling alongside a reform of the life-long learning system. This is expected to address another long-standing vulnerability of the Greek economy: skill mismatches which contribute to long-term unemployment. Component 3.4 promotes labour market integration of vulnerable groups such as persons with disabilities refugees and Roma. It also improves availability of early childhood education and care and access to effective social policies through digital transformation of the social protection system and development of social services, notably for vulnerable children and for persons with disabilities.

Box 3 Employment and social challenges in light of the Social Scoreboard accompanying the European Pillar of Social Rights

The Social Scoreboard supporting the European Pillar of Social Rights points to a number of employment and social challenges in Greece. The COVID-19 crisis has halted the positive labour market developments observed in the past years and risks leading to an increase in the share of people at risk of poverty or social exclusion (AROPE). The unemployment rate, at 15.8% in December 2020, is far above the EU average (7.5% at the same point in time). The share of long-term unemployed remains extremely high in Greece (66.4% in Q4 2020). The overall employment rate remains the lowest in the EU at 61.5% in Q4 2020 and the employment rate of women is about 18 pps below that of men. This very large gender employment gap is only partly attributable to caring responsibilities of women. A remarkable increase has been observed in childcare enrolment rates in recent years, with 32.4% of children aged less than 3 years in formal childcare in 2019 compared to 20.5% in 2017.



Update of 29 April 2021. Members States are classified on the Social Scoreboard according to a statistical methodology agreed with the EMCO and SPC Committees. It looks jointly at levels and changes of the indicators in comparison with the respective EU averages and classifies Member States in seven categories. For methodological details, please consult the Joint Employment Report 2021; NEET: neither in employment nor in education and training; GDHI: gross disposable household income.

The employment situation of young people in Greece is critical. Despite a continued decline in recent years, the share of young people aged 15-29 not in education, employment or training (NEET) remained among the highest in the EU and has significantly worsened in the current crisis (19.1% in Q4 2020). Of particular concern is the situation for the 25-29 age group, for which the NEET rate in 2020 was double the one for the 15-24 age group.

While poverty has been gradually decreasing in the years before the crisis, the pandemic may reverse this trend. In 2019, the at risk of poverty or social inclusion rate was among the highest in the EU at 30%, well above the EU average (20.9%). The impact of social transfers on poverty reduction, at 22.8%, is much below the EU average (32.4% in the EU).

The recovery and resilience plan submitted by Greece addresses a multitude of employment and social challenges relevant for the implementation of the Pillar. To foster equal opportunities and access to the labour market, the plan envisages a new strategy for lifelong learning and a modernisation of the upskilling and reskilling system. The reform would redesign and upgrade the current fragmented programmes, establishing new curricula linked to labour market needs and an assessment framework for the providers of upskilling programmes. Investments to further upgrading vocational education and training are also envisaged. To improve labour market dynamics and working conditions, Greece also plans a labour law reform aimed at improving the labour market functioning and significant investments in wage subsidies and upskilling/reskilling programmes that will complement activation programmes supported by the European Social Fund. Reforms improving incentives to work and investments in enhancing the public employment services are also foreseen. However, the structural reform needed to ensure timely and tailored delivery of active labour market policies to jobseekers nationwide is not sufficiently addressed.

With more people likely to fall back on the basic safety nets due to the COVID-19 crisis, reforms on social protection and inclusion are important in order to provide much needed support, in synergy with European Social Fund funding. The plan includes a multitude of interventions in the social area aimed, inter alia, at expanding access to early childhood education and care, deinstitutionalization of children and adolescents, support to persons with disabilities and the labour market integration of vulnerable groups. Nonetheless, while relevant to address the investment needs related to social inclusion, the interventions lack an overall framework for strengthening access to social services, including housing. Finally, the plan includes measures aimed at reforming and expanding primary health care and investing in the digitalisation of health services. These measures are important to help further reduce the still high self-reported unmet needs for medical care (8.1% compared to 1.7% in the EU in 2019).

Reducing vulnerability and increasing resilience

Several measures and components aim to reduce the country's vulnerabilities and to increase its capacity to absorb shocks. The main vulnerabilities identified by the Macroeconomic Imbalances Procedure are: 1) high public debt, 2) high ratio of non-performing loans in the banking sector, 3) high stock of external liabilities, 4) low activity and employment rates and high unemployment especially among the young, and 5) low growth potential. These vulnerabilities typically have inertia, and correcting them requires considerable amount of time. The common feature of these imbalances is that their correction requires improving growth potential and employment in a sustainable and inclusive manner. Most of the measures discussed in the previous two sub-sections are therefore highly relevant here too.

The capacity to withstand shocks crucially depends on at least four factors. First, sufficiently flexible labour market complemented with well targeted and effective social safety net is necessary to limit damages to employment in case of a negative shock. Second, fiscal policy should be in a position to act counter-cyclically, allowing the automatic stabilisers to operate freely, while safeguarding sustainability of public finances. Third, the public administration should have the capacity to implement coordinated policy responses in time of need, and to be a helpful partner of the private sector in normal times too. Finally, a well-functioning financial market plays a crucial role in both preventing crises and in mitigating their impacts by avoiding financial acceleration.

The planned reforms in the labour market are expected to improve its resilience. As discussed above, the modernisation of the labour code under component 3.1 is expected to bring a structural reform of individual labour law, collective labour law, trade union law, and of monitoring systems. Under the same component, sizeable investments in active labour market policies, including reskilling and upskilling as well as hiring incentives, accompanied by enhancement of the public employment service will help reduce unemployment. Passive labour market policies will be redesigned to provide better incentives to return to work. Labour market resilience is also expected to be strengthened by further reforms and investments that promote and support lifelong learning (component 4.3 and 3.2), vocational training (component 3.2) and other types of education (component 3.4).

Further strengthening of the tax and public administration are expected to support a more resilient economy. Over the medium and long term, reducing tax evasion and creating a fair and growth-friendly tax environment can be beneficial to provide fiscal space for necessary policy interventions. Component 4.1 improves revenue collection and administration through incentives to increase electronic transactions and through the digitalisation and automatisation of VAT refunds. Furthermore, there are several sub-projects that increase the capacities of the

Independent Authority of Public Revenue, which shall be instrumental in fighting tax evasion. More broadly, there are several measures that improve public administration in general, for example reforms under component 4.2, which is the principal component of modernising public administration, but also under component 2.2 by making the public administration more digital, and better enabled to react quickly to shocks, by quicker reaction trough more efficient and digital processes and closer and more direct connection to citizens and businesses.

The plan includes a number of reforms to strengthen the financial sector and capital markets Measures aim to upgrade the necessary digital infrastructure needed to support the recently adopted insolvency framework that entered into force on 1 June 2021 and was assessed under enhanced surveillance. Reforms under component 4.4 include an improved monitoring registry for private debt, the development of a public credit bureau, a central credit register, and a credit expansion observatory. These are all beneficial in reducing asymmetric information between public entities, financial institutions, households and businesses, which may lead to a more efficient allocation of credit, through the reduction of risk premia, as well as facilitate further growth in the secondary market for non-performing loans. The capital markets are expected to be strengthened through the codification and modernisation of the regulatory and legislative framework for capital markets and the digitalisation of the internal processes and organization of the Hellenic Capital Market Commission. These efforts aim to provide a more robust regulatory framework for the capital markets, which could then complement bank financing. The Loan Facility proposed in the recovery and resilience plan is also expected to help both the financial sector through risk sharing and the corporate sector by providing cheaper financing, which may improve the resilience of the economy as a whole.

Resilience is also expected to be improved through investments in and measures supporting the health care system. The health care system in Greece currently has a number of structural problems including supplier-induced demand, lack of family doctors, insufficiently means-tested co-payments and limited investments, reflected in continually increasing public health-care spending. Component 3.3 sets out to remedy some of the current deficiencies. Health-care costs and their monitoring are expected to be rationalised including through digitalisation and by implementing an organisational reform of the health care system establishing an activity-based reimbursement system and a quality assessment framework. Health infrastructure will be upgraded through much-needed investments, and providers will be incentivised to carry out R&D, as part of the clawbacks will be eligible for writing-off against R&D expenditure. The measures to strengthen primary health care and the creation of a national public health prevention strategy can contribute to the general improvement of the health state of the population and to increasing the efficiency and the sustainability and resilience of the health care system.

Cohesion and convergence

The recovery and resilience plan is expected to contribute to enhancing economic, social and territorial cohesion and convergence. There are currently considerable economic, social and territorial disparities in Greece. The problems of high unemployment and the resulting poverty (especially among children and working-age population) persist despite improvements brought about by economic recovery prior to the COVID-19 crisis and social welfare reforms including, most notably, the introduction of the guaranteed minimum income reform in 2017. Economic disparities often translate to regional disparities as rural areas have typically moderate employment possibilities to offer.

A broad set of growth-enhancing measures are expected to deliver growth, thereby reducing economic disparities. The most effective policy to fight against poverty is to create economic growth and permanent jobs. As discussed in previous subsections, the plan includes a wide range of measures that are expected to help kick-start the economy. Within these measures, the ones that aim to support small and medium sized enterprises are particularly relevant for reducing economic disparities. The simplification of business and tax administration (component 4.1), the improvement of the financial markets (component 4.4), the upskilling of cultural professionals, the development of tourism (component 4.6) and improvement of the business environment (component 4.7) are all expected to contribute to providing a better ground to grow for smaller enterprises which in turn can generate growth in the underprivileged parts of the population where these enterprises might operate.

Most of the measures under the third pillar of the plan are expected to improve social cohesion and reduce poverty and inequalities. The labour market reforms and active labour market policies under component 3.1 will be instrumental in this regard. The Plan also envisages investment in human capital and skills in particular, by upgrading education, vocational education and training and life-long learning systems under component 3.2. In addition, the public health prevention programme is expected to help in improving the overall health of the labour force. Finally, component 3.4 will improve access to social services and promote labour market integration of vulnerable groups, including refugees. Measures such as expanding early childhood education and care, child protection, diversity awareness, and support to persons with disabilities are all steps towards a more inclusive society of equal opportunities.

The plan addresses regional disparities primarily through investments in transportation infrastructure and programmes to develop tourism and the cultural sector. Greece’s current domestic transportation system faces a number of challenges, whereas the country’s geographical features would call for a well-functioning and affordable transport network in order to reduce regional disparities. One of the main objectives of component 4.6 is the improvement of the transportation infrastructure. Measures include building of new highways, road safety upgrades, the development of the railway system, the upgrade of regional ports and the certification of 13 regional airports with the European Union Aviation Safety Agency (EASA) compliance program. Further measures under this component aim to promote culture, tourism and agriculture as engines of regional growth. Interventions under other components contribute to reducing regional disparities too: the revitalisation of territories affected by the termination of lignite mines and the improvement of interconnections should provide more stable and affordable electricity for the islands, thus enhancing their potential as tourist destinations (component 1.1), the establishment of a strategic National Disaster Management system (component 1.4), the digital transformation of the health care sector (component 3.3).

Conclusion

Taking into consideration all reforms and investments envisaged by Greece, its recovery and resilience plan is expected to have a high impact on strengthening the growth potential, job creation, and economic, social and institutional resilience of the Member State, on contributing to the implementation of the European Pillar of Social Rights, including through the promotion of policies for children and youth, and on mitigating the economic and social impact of the COVID-19 crisis, thereby enhancing the economic, social and territorial cohesion and convergence within the Union. This would warrant a rating of A under the assessment criterion 2.3 of Annex V to the RRF Regulation.

4.4. The principle of 'do no significant harm'

The RRF Regulation provides that no measure included in the recovery and resilience plan should lead to significant harm to any of the six environmental objectives within the meaning of Article 17 of the Taxonomy Regulation[31]. In line with the RRF Regulation and the Technical Guidance on the Application of 'do no significant harm'[32] ('DNSH Technical Guidance'), Member States provide a 'do no significant harm' (DNSH) assessment, on which basis the Commission assesses whether each and every measure (i.e. each reform and each investment) included in the plans complies with DNSH. DNSH compliance is therefore a necessary condition for the Commission to positively assess the recovery and resilience plan. Greece has included a DNSH assessment for each measure included in its plan in accordance with the template provided by the Commission, and in line with the DNSH Technical Guidance. The Commission has assessed whether and how each measure in Greece's plan complies with DNSH on that basis.

The Greek plan is expected to ensure that no significant harm is done to environmental objectives by only selecting or designing measures complying with DNSH. By selecting measures that either contribute substantially to environmental objectives, such as those on reforestation, or have no or an insignificant foreseeable impact on environmental objectives (such as those on labour market, social policy, or public administration), many measures in Greece's plan can be considered DNSH compliant from the outset. Other measures are designed to ensure compliance with DNSH, directly or by requiring specific evidence and commitments through milestones and targets to substantiate that they will not lead to significant harm to environmental objectives. A summary of the most relevant issues is included below.

DNSH-compliant measures facilitate the green transition. The self-assessment clarified compliance, in particular for investments in energy networks in component 1.1, where submarine

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[31] The six environmental objectives comprise (1) climate change mitigation, (2) climate change adaptation, (3) sustainable use and protection of water and marine resources, (4) the circular economy, (5) pollution prevention and control, and (6) protection and restoration of biodiversity and ecosystems.
[32] 2021/C58/01.

cables will be laid or the distribution network will be upgraded. The latter measure in particular is meant to better protect the environment, for example by putting underground cables which currently pass through forest areas. For the renovation of residential and public buildings in component 1.2 (as well as in pillar 3 for measures on healthcare and childcare) the respect of the principle will be ensured through compliance with the minimum requirements in the Energy Performance of Buildings Directive, and respecting the circular economy principles when it comes to construction waste. This means in particular that 70% of the construction waste will be recycled. Reforms such as the establishment of a new marine spatial planning framework are also meant to directly protect the marine environment and biodiversity. In component 1.3, investment in public transportation vehicles has been limited to electric vehicles, while for the development of a "first of its kind" CO2 geological storage facility in Greece, the authorities have thoroughly analysed the possible environmental implications, also excluding the possibility that technologies, facilities or equipment engineered towards enhanced oil recovery are used, ensuring that any possible extraction of oil or gas is limited to the indispensable needs of managing pressure and ensuring safety of the storage sites. For irrigation, flood mitigation and water measures included in component 1.4, compliance with the DNSH principle will be ensured inter alia by requiring that any work regarding dams is in line with the Water Framework Directive, ensuring among others that new extraction is only allowed if the status of the water body is in good status and will remain so, also taking into account the projected impacts of climate change based on best science. In the same component, compliance of the purchase and upgrade of special purpose vehicles for civil protection and firefighting with DNSH is ensured by such vehicles being "best-in-class" from the environmental performance point of view.

Measures included in pillar 2 (digital) or pillar 4 (investment) were also designed to ensure respect with the DNSH principle. The laying of fibre submarine cables to interconnect mainland Greece with its islands and with Cyprus will be subject to an environmental impact assessment, while investment in cloud computing will focus on energy efficient equipment. The investments in motorways in pillar 4 are accompanied by flanking measures, such as, investments in alternative fuels infrastructure (8 000 charging stations), a major road safety programme with interventions in more than 7 000 dangerous locations, road access reforms (such as electronic tolling), measures supporting the shift towards electric vehicles including buses and taxis, a reform of the railway sector to support switching from road to rail, and railway investments in the TEN-T core network and suburban rail. Interventions in the rail infrastructure, including projects on the TEN-T core network and on suburban rail, are also meant to modernise and electrify the network. In component 4.3, for the construction of new judicial buildings compliance with the criteria defining near-zero energy buildings will be required.

The plan also includes measures of a horizontal nature, which are designed to be DNSH compliant. As set out in the DNSH Technical Guidance, measures of a more general nature, such as broad industry support schemes (e.g. financial instruments covering investments in companies across multiple sectors), should be designed to ensure adherence of the relevant investments with DNSH. The plan contains such broad measures, such as the use of RRF loans to provide loan and equity funding to companies, or measures to support the development of innovative products and services. For these – as for other more specific measures – Greece will, inter alia, apply selection criteria that are based on an exclusion list that excludes from support investments related to fossil fuels, activities under the ETS with projected CO2 equivalent emissions that are not substantially lower than the relevant benchmarks established for free allocation, investments in facilities for the disposal of waste in landfill, in mechanical biological treatment (MBT) plants, and incinerators for the treatment of waste, and activities where the long-term disposal of waste may cause long-term harm to the environment. Through this approach, Greece ensures that the broad measures included in the plan are DNSH compliant.

Conclusion

Taking into consideration the assessment of all the measures envisaged, no measure for the implementation of reforms and investments projects included in Greece's recovery and resilience plan is expected to do a significant harm to environmental objectives within the meaning of Article 17 of Regulation (EU) No 2020/852 (the principle of 'do no significant harm'). This would warrant a rating of A under the assessment criterion 2.4 of Annex V to the Recovery and Resilience Facility Regulation.

4.5. Green transition

This section assesses to what extent the proposed measures fulfil the elements corresponding to assessment criterion 2.5 of Annex V to the RRF Regulation. The assessment focuses in particular on whether the climate tracking methodology from Annex VI to the RRF Regulation has been applied correctly and the 37% target has been reached, while it also sets out the impact of the measures on the green transition, including biodiversity.

Climate target

Greece's recovery and resilience plan dedicates EUR 11 428 million to the climate objective, which represents 37.5 % of the plan's total allocation in non-repayable financial support and loans. The investments financed by non-repayable financial support contribute by 37.8 % to the green transition, while the Loan Facility financed through the loan allocation contribute by 37.0 % to the climate objective. This exceeds the minimum climate target of 37% of the total allocation as set out in the Recovery and Resilience Facility Regulation and is based on a correct application of the methodology for climate tracking as set out in Annex VI to that Regulation, by identifying intervention fields, and corresponding coefficients for the calculation of support to climate change objectives. Greece's plan does not use any uplifting or increase of certain climate coefficients for investments.

The main pillar contributing to climate change objectives is the green pillar, which is constituted of four components covering a total of 35 measures. The large majority of these measures contribute towards the climate change objective through a broad range of interventions, stretching from smart energy systems and renewable energy sources to cycling infrastructure and energy efficiency.

Component 1.1, based on the 'PowerUp' flagship (overall estimated value: EUR 1.20 billion) includes a number of investments contributing towards the climate objective, such as the support for installation of storage systems to enhance renewable energy sources' (RES) penetration. The component also includes an important reform concerning the RES support scheme to producers that aims to ensure that it remains viable. Strong emphasis is placed on electricity interconnections between the islands and the mainland, and in particular, the connection of the Cyclades Islands to the mainland's grid.

Component 1.2, based on the Renovation wave flagship (overall estimated value: EUR 2.71 billion) covers significant investments in enhancing energy efficiency in Greece's building stock, including a flagship investment in "Energy renovation of residential buildings" that is estimated at EUR 1.253 billion. The measures related to renovation and enhancing energy efficiency will result in average primary energy savings or greenhouse gas reduction of 30%. The component also includes an important reform to develop urban plans in order to set a comprehensive and coherent framework for urban policy and the relevant planning systems. The urban plans will include a dedicated chapter on adaptation measures at the municipal level to strengthen overall climate resilience.

Component 1.3, based on the clean, smart and fair urban mobility flagship (overall estimated value: EUR 520 million) aims to make urban mobility cleaner, smarter, safer and fairer. It covers measures for the installation of more than 8 000 charging points for electric vehicles and replacement of 2 000 taxis and 220 public transport busses with battery electric vehicles. Further, it covers the development of Greece's first Carbon Capture, Utilization and Storage Facility (CCUS) contributing to the clean energy transition. This component also contains key reforms, including revising the legislative framework for public urban and regional passenger transportation services and carrying out a feasibility study for the establishment of an electro-mobility agency.

Component 1.4 (overall estimated value: EUR 1.76 billion) covers a range of measures related to the environmental protection ranging from reforestation and biodiversity protection to improving the irrigation network and wastewater management. The component also includes measures aiming to enhance the operational capabilities of Greece's civil protection and disaster management systems in order to address climate related risks, such as floods and forest fires.

The second pillar (digital) of the plan also contains measures contributing towards the climate objective. This pillar includes three components out of which component 2.2 aiming to modernise and enhance the digital services of the Greek public administration contains two measures contributing towards the climate objective. Both measures relate to the supply and upgrade of government cloud infrastructure and services and will follow the European Code of Conduct on Data Centre Energy Efficiency aiming to reduce energy consumption of data centres through applying best practices.

The third pillar, focusing on employment, skills and social cohesion, contains measures contributing towards the climate objective in three out of its four components. Components 3.1 and 3.2 aiming to support employment and strengthen labour force upskilling contain dedicated funds for improving green skills and supporting job creation in the green economy. The new strategy for lifelong skilling includes training programmes on green skills, covering resource efficiency, low-carbon industry, climate reliance and managing natural assets. The remaining climate related measures focus on energy efficiency renovations, including infrastructure upgrades for hospitals under component 3.3.

The fourth pillar, covering tax policy, private investments and transformation of the economy, also includes a number of measures contributing towards the climate objective. In particular, the components “Modernise and improve resilience of key economic sectors” and “Improve competitiveness and promote private investments and trade” contain significant investments related to climate change. The former component includes measures to strengthen the urban and national rail network as well as targeted support to the agricultural sector for climate adaptation measures. The latter component contains a Loan Facility for EUR 12 728 million that shall allocate at least 37% of its funds to activities supporting the climate transition, such as efficiency and demonstration projects for the private sector with significant energy savings or reduction of greenhouse gas emissions, new resources energy sources’ capacity (solar and wind) and smart energy systems. Finally, component 4.1 includes a reform introducing tax incentives for super-deduction of SME expenses on green and digital investments and is expected to increase investment for the green and digital transitions.

Table 7 Climate contribution per component

Component and name of the measure	Cost (EUR million)	Climate contribution (EUR million)	Climate contribution * (percentage)
1.1. Power up	1 200.3	987.8	3.2%
1.2. Renovate	2 711.5	2 532.5	8.3%
1.3. Recharge and refuel	520.0	520.0	1.7%
1.4. Sustainable use of resources, climate resilience and environmental protection	1 762.7	1 065.1	3.5%
2.1. Connect	521.6	0.00	0.0%
2.2. Modernise	1 280.6	63.2	0.2%
2.3. Digitalisation of businesses	375.0	0.00	0.0%
3.1. Promote job creation and participation in the labour market	776.3	100.00	0.3%
3.2. Education, vocational education and training, and skills	2 311.4	513.00	1.7%
3.3. Improve resilience, accessibility and sustainability of healthcare	1 485.7	204.7	0.7%
3.4. Increase access to effective and inclusive social policies	611.4	0.0	0.0%
4.1. Making taxes more growth friendly and improving tax administration and tax collection	187.2	0.0	0.0%

4.2. Modernise the public administration, including through speeding up the implementation of public investments, improving the public procurement framework, capacity building measures and fighting corruption	188.8	0.0	0.0%
4.3. Improve the efficiency of the justice system	250.7	38.4	0.1%
4.4. Strengthen the financial sector and capital markets	20.7	0.00	0.0%
4.5. Promote research and innovation	443.6	50.00	0.2%
4.6. Modernise and improve resilience of key economic sectors	3 742.1	644.3	2.1%
4.7. Improve competitiveness and promote private investments and trade	12 733.7	4 709.6	15.4%
Technical assistance	40.0	0.00	0.0%
Total	**31 163.5**	**11 428.5**	**37.5%**

** Please note that the climate change contribution in percentage is calculated based on Greece's total allocation of non-repayable financial support (EUR 17 769.9 million) and loans (EUR 12 727.54 million).*

Green transition

The recovery and resilience plan contributes to Greece's green transition, addresses the related challenges and is overall well aligned with the priorities of the European Green Deal and its 2030 climate target plan as well as the goal to make the EU climate-neutral by 2050. The plan contains components addressing a number of the green transition areas and making contributions to achieving those goals. On clean energy, component 1.1 includes both reforms and investments aiming to increase the renewable energy sources in Greece's energy mix. On building and renovating, sizeable investments are planned under component 1.2 to improve the energy efficiency of Greece's ageing housing stock, complemented by actions targeting energy poor households as well as reforms and investments for urban plans development and interventions, setting a framework to support green investments and enhance climate resilience of cities. On sustainable mobility, component 1.3 includes both reforms and investments aiming to improve urban public transport and enhance the infrastructure for electric vehicles. Component 1.4 includes measures to promote and support biodiversity as well, such as a new system for permanent monitoring of species and habitat types, and the support to the reforestation of 16,500ha of degraded forest ecosystems, mainly through native species. Finally, on sustainable agriculture, component 4.6 includes a measure aiming at increasing the added value of agricultural products, promoting innovation, and protecting the environment. The key objectives of the measure include increasing competitiveness, with a greater emphasis on research, technology, and digitisation, improving the level of skills in the rural/agricultural sector, improving the environmental profile of agricultural holdings and mitigating the effects of climate change.

The plan is in line with the strategic priorities of Greece's National Energy and Climate Plan (NECP) and its specific targets particularly Greece's ambitious plan to decommission

its lignite plants, while it also addresses to a large extent the comments raised by the Commission as part of the assessment of Greece's NECP. The recovery and resilience plan includes reforms and investments serving all five dimensions of the NECP and Greece's ambitious decarbonisation goals focusing on renewable energy, energy efficiency and clean mobility. Regarding renewable energy sources, the plan includes investments amounting to additional capacity of 6.5 GW by 2025. This equals 74% of the set target by 2030 through frontloading investments and contributing towards achieving the increased 55% net greenhouse gas emissions reduction target. Further, a reform promoting RES production storage and investments for storage, upgrading grids and to connect several non-interconnected islands with the mainland are significantly contributing to Greece's decarbonisation targets, its interconnectivity and security of supply. To ensure the challenging timeline of the decommissioning of existing lignite-fired power generation is met, the plan includes reforms and investments aimed at completing the internal energy market. This entails a reform for the establishment of a market monitoring mechanism for the National Regulatory Authority (RAE) and the participation of demand-side response (DSR) in the balancing market increasing completion at the wholesale level. Further, a new RES licensing simplification reform and a maritime spatial planning that will allow, among other, for energy production from renewable sources in offshore and coastal areas, are also part of the plan. This reform is expected to further unlock Greece's potential on offshore and facilitate Greece's transition from lignite to cleaner energy sources, while respecting environmental protection, and in line with the European Green deal objectives.

Energy efficiency measures are also a priority for Greece and the plan dedicates a significant budget to energy efficiency measures. In the NECP, Greece estimated a total planned budget for all energy efficiency measures of EUR 11 billion and the goals were assessed by the Commission as credible but not sufficiently ambitious [33]. In line with the 'Renovation Wave' Flagship, the Renovate component uses EUR 2.19 billion covering a part of the NECP budget and some of the measures contained therein. The plan proposes significant support and additional funding for buildings renovation. At the same time, substantial amounts of additional public funding will still be needed to mobilise the total volume of investments necessary to deliver on the remaining of the energy savings required to achieve the objective set in the NECP and the long-term renovation strategy for 2030. Further, as the Commission pointed out in its NECP assessment, energy poverty is a significant problem and Greece has confirmed its intentions to addressing it to a great extent over the next 10 years.

Beyond energy efficiency, the recovery and resilience plan has the broader objective of promoting the green transition through the efficient usage of natural resources, in particular through water and waste management and protection and restoration of natural

[33] Assessment of the final national energy and climate plan of Greece, European Commission Staff Working Document, Brussels, 14.10.2020 SWD(2020) 907 final, pages 9-10.

environment. In doing so, the recovery and resilience plan is underpinned by a number of national plans beyond the NECP, including national waste management plan, reforestation plan, circular economy plan and biodiversity plan. On the environmental objectives as defined in the Taxonomy Regulation (EU 2020/852), the plan includes measures on climate change mitigation aiming to reduce greenhouse gas emissions, mainly through enhancing energy efficiency of buildings. Further, the plan contains a measure to develop Greece's first carbon capture, utilisation and storage investment by developing transportation and storage on CO_2 into geological features. This will help with emissions of hard to abate sectors, while hydrogen could also be enabled with this measure, in line with the Union's hydrogen strategy.

Greece is a climate-vulnerable country, exposed to the impacts of climate change. **The plan includes a number of measures related to climate change adaptation**, including preparation of local urban plans aiming to facilitate urban renewal and make the cities more climate resilient. Further, investments in strengthening key electricity infrastructure, flood mitigation projects and emergency response address concerns around forest fires and extreme weather conditions that could increase in coming years as the effects of climate change are becoming more evident. The plan contains measures on water supply and urban wastewater are linked with specific targets to reduce water leakage and energy consumption, thus contributing to a more sustainable use of water resources. Finally, the plan covers a reforestation measure that is expected to contribute to an increase of the forest cover area by 16 500 ha, while species protection is expected to rise by 8% and the overall quality of natural environment by 5%.

The plan also includes measures that address societal and economic challenges resulting from the green transition, particularly with Greece's decommissioning plan in mind. These are measures that aim to strengthen labour force upskilling and lifelong skilling with a specific focus on improving green skills, jobs and the green economy, for example, through training programmes covering resource efficiency, low-carbon industry, climate reliance and managing natural assets. Taking into account the draft Just Development Transition Master Plan and the draft territorial Just Transition Plans, the RRP takes into account the need to ensure a just transition, in view of the phase-out of lignite, particularly in the areas of Western Macedonia and central Peloponnese (Megalopoli). Investments included in the plan, around the rehabilitation of industrial land, address partially the economic challenges of this transition in the most affected area, creating the basis for further development of green investments as announced in the draft Just Development Transition Master Plan.

In line with Greece's ambitious decommissioning plan, these measures should help Greece achieve a genuine green transition, with fundamental changes to energy production and transport that should have a lasting impact. Such investments are necessary steps and provide the fundamental regulatory and infrastructure framework for a sustainable economy in line with Greece's long term strategy.

Conclusion

Taking into consideration the assessment of all the measures envisaged, the recovery and resilience plan is expected, to a large extent, to make a significant contribution to the green *transition or to address the challenges resulting from it and ensures that at least 37% of its total allocation contributes to the climate target. This would warrant a rating of A under criterion 2.5 of Annex V to the RRF Regulation.*

4.6. Digital transition

This section assesses whether and to which extent the proposed measures fulfil the elements corresponding to assessment criterion 2.6 of Annex V to the RRF Regulation. In particular, it assesses whether the methodology for digital tagging set out in Annex VII to the RRF Regulation has been applied correctly and whether the measures in the recovery and resilience plan that effectively contribute to the digital transition or to addressing the challenges resulting therefrom, account for an amount which represents at least 20 % of the plan's total allocation.

Digital tagging

Greece's recovery and resilience plan dedicates EUR 7 093 million to the digital transition, which represents 23.3% of the plan's total allocation in non-repayable financial support and loans. The investments financed by non-repayable financial support contribute by 25.6% to the digital transition while the Loan Facility financed on the basis of the loans allocation contributes by at least 20% to the digital transition. This exceeds the minimum digital target of 20 % of the total allocation as set out in the Recovery and Resilience Facility Regulation and is based on a correct application of the methodology for digital tagging set out in Annex VII to that Regulation, by identifying intervention fields and corresponding coefficients for the calculation of support to digital objectives. Greece's plan does not use any uplifting or increase of certain digital coefficients for investments.

The main pillar contributing to the digital transition is pillar 2 on 'Digital Transformation', whose cost estimation is worth almost EUR 2.2 billion and comprises three components, covering a total of 32 measures. All the measures included under this pillar contribute towards the digital transition through a broad range of interventions, stretching from measures aiming at enhancing connectivity to measures aimed at improving the digitalisation of public administration and businesses.

The first component, component 2.1 'Connect' (overall estimated value: EUR 521.6 million) contains measures that aim to foster and facilitate the widespread deployment of very high capacity networks, including 5G and fibre, and the development of a constellation of small satellites and is linked to the European flagship 'Connect'. In particular, the investments included under this component concern the installation of fibre optic infrastructure in buildings, the development of 5G networks covering all major Greek highways, the deployment of submarine fibre cables to connect mainland with the Greek islands and Cyprus and the utilisation of space technologies and applications by developing a constellation of small-satellites that will support secure connectivity services coupled with multipurpose applications for earth observation. The reforms included under this component institute a framework to facilitate the switch to fast broadband connections and the transition to 5G technology. Overall, all measures under this component significantly contribute to the digital transition.

The second component, 2.2. 'Modernise' (overall estimated value: EUR 1.3 billion), targets the digital transformation of public sector entities and is linked to the European flagship 'Modernise'. The measures included under this component aim in particular at modernising the public administration by improving its operational model and enabling the provision of high-quality services to citizens and businesses, using as a catalyst to the improvement of the public administration's digital performance. Reforms and investments target in particular: (a) the digital transformation of public sector's organisations, including the digitisation of archives and enhanced digital services; (b) business process improvements followed by the incorporation of modern IT systems; (c) increased interoperability between systems and data; (d) wide-ranging cybersecurity and data governance strategies and policies; as well as (e) extended use of advanced technologies, such as cloud computing and big data.

The third component, component 2.3 'Digitalisation of businesses' (overall estimated value: EUR 375.0 million), aims to boost the adoption of digital technologies by businesses (in particular SMEs) by tackling key challenges of digital inclusion, including the lack of awareness about the benefits of digitalisation and knowledge about how to adopt digital technologies. This support is in particular expected to help these businesses to adapt to new challenges and take advantage of emerging business trends through the creation of a digital business ecosystem, promoting the digital transformation of SMEs. In particular, this component envisages the establishment of a single digital marketplace that will provide advanced technologies´ products and services tailored for SMEs' digital transformation and will be accessed both by SMEs and by the suppliers of such products and services. The component also aims to promote the use of electronic payments and sales among SMEs, the upgrade of cash registers and the Point Of Sale ecosystem, and the creation of industrial data platforms. In addition, the establishment of a central supporting mechanism for SMEs is envisaged, facilitating the provision of training and awareness programs so that they can make the most of the tools and services offered through the digital marketplace. Finally, the component envisages tax incentives on tangible and intangible assets to facilitate the digital transformation of SMEs, in synergy with those in component 4.1.

Overall, all measures contained in pillar 2 on 'Digital Transformation' significantly contribute to the digital transition or to the challenges resulting from it and, on this basis, have been correctly associated with intervention fields with 100% digital coefficients. In addition to these measures, other measures under pillars 3 and 4, worth EUR 2.4 billion in total, are also considered to significantly contribute to the digital transition or to the challenges resulting from it and have been associated with intervention fields with 100% digital coefficients.

Pillar 3 on 'Employment, skills, and social cohesion' comprises a number of measures, for a total amount of EUR 1.5 billion, which are expected to significantly contribute to the digital transition and is linked to the European flagship 'Reskill and Upskill'. For instance, the comprehensive project called 'A New Strategy for Lifelong Skilling: Modernising and Upgrading Greece's Upskilling and Reskilling System' (overall estimated cost of EUR 1 billion), includes investment in digital skills training for 370 000 beneficiaries, with an estimated cost of EUR 690 million notably aiming at increasing the quality of upskilling efforts and their relevance with labour market, including by placing emphasis on the digital transition. In addition, Pillar 3 also comprises measures envisaging the digital transformation (i) of education (estimated cost EUR 365 million), (ii) of the health care system (estimated cost EUR 278 million), (iii) of labour systems (estimated cost EUR 77 million), (iv) of the immigration and asylum system (estimated cost EUR 42 million) (v) of the public employment service (OAED) (estimated cost EUR 17 million), and (vi) of the social support system (estimated cost EUR 12 million).

Pillar 4 on 'Private investment and transformation of the economy' also includes a number of measures, with an estimated cost of EUR 890 million, which are expected to significantly contribute to the digital transition. These include in particular the digitalisation of the Tax and Customs Administration (estimated cost EUR 180 million), (ii) the transformation of fiscal management and supervision in governance & electronic invoicing (estimated cost EUR 102 million), (iii) the 'electronic tools' project, the 'smart bridges' project as well as subprojects related to digital within measure 'Smart Infrastructure with environmental and cultural focus' (estimated cost EUR 90 million, EUR 81 million and EUR 82 million, respectively), (iv) the digital transformation of justice and a measure aimed at improving digital skills for judges and judicial employees (estimated cost EUR 81 million and EUR 32 million, respectively), (v) a measure aimed at the acceleration of smart manufacturing (estimated cost EUR 75 million) (vi) the TH^2ORAX project under component 4.5 (estimated cost EUR 50 million), (vii) the digital transformation of the agri-food sector (estimated cost EUR 48 million), (viii) the digital transformation of the immigration and asylum system (estimated cost EUR 42 million), (ix) the digital transformation of the Hellenic Railways Organization (estimated cost EUR 24 million), (x) a measure aimed at enhancing capital market supervision (estimated cost EUR 12 million), and (xi) the digitalization of the economic diplomacy network (estimated cost EUR 10 million). In addition, the EUR 12.7 billion of the Loan Facility included under component 4.7 contributes for 20% to the digital transition, in particular through investments in very high capacity broadband networks, investments aimed at digitalizing both SMEs and large enterprises, investments in the development and deployment of cybersecurity technologies, advanced digital technologies and other types of ICT infrastructure.

Table 8 Digital contribution per component

Component and name of the measure	Cost (EUR million)	Digital contribution (EUR million)	Digital contribution* (percentage)
1.1. Power up	1 200.3	0.0	0.0%
1.2. Renovate	2 711.5	0.0	0.0%
1.3. Recharge and refuel	520.0	0.0	0.0%
1.4. Sustainable use of resources, climate resilience and environmental protection	1 762.7	0.0	0.0%
2.1. Connect	521.6	521.6	1.7%
2.2. Modernise	1 280.6	1 280.6	4.2%

2.3. Digitalisation of businesses	375.0	375.0	1.2%
3.1. Promote job creation and participation in the labour market	776.3	93.8	0.3%
3.2. Education, vocational education and training, and skills	2 311.4	1 055.0	3.5%
3.3. Improve resilience, accessibility and sustainability of healthcare	1 485.7	277.6	0.9%
3.4. Increase access to effective and inclusive social policies	611.4	54.0	0.2%
4.1. Making taxes more growth friendly and improving tax administration and tax collection	187.2	185.1	0.6%
4.2. Modernise the public administration, including through speeding up the implementation of public investments, improving the public procurement framework, capacity building measures and fighting corruption	188.8	108.2	0.4%
4.3. Improve the efficiency of the justice system	250.7	113.0	0.4%
4.4. Strengthen the financial sector and capital markets	20.7	12.2	0.0%
4.5. Promote research and innovation	443.6	50.0	0.2%
4.6. Modernise and improve resilience of key economic sectors	3 742.2	420.8	1.4%
4.7. Improve competitiveness and promote private investments and trade	12 733.7	2 547.0	8.4%
Technical assistance	40.0	0.0	0.0%
Total	**31 163.5**	**7 094.1**	**23.3%**

** Please note that the digital contribution in percentage is calculated based on Greece's total allocations in non-repayable financial support (EUR 17 769.9 million) and in loans (EUR 12 727.5 million).*

Digital transition

The recovery and resilience plan contributes to Greece's digital transition, addresses related challenges and is overall well aligned with the key objectives of the Digital Strategy of the Union and with the priorities related to digital set out by the Commission in the 2021 Annual Sustainable Growth Strategy. These measures also address well Greece's shortcomings in the digital field as identified in the Digital Economy and Society Index (DESI). The plan encompasses in particular (i) measures aimed at enhancing connectivity, by accelerating and facilitating the deployment of very high capacity networks, in particular 5G and fibre networks; (ii) measures aimed at improving the digitalisation of public administration, the judicial and financial systems, and key sectors of the economy, including manufacturing, agri-food, culture and tourism, notably through a wider adoption of digital capacities and advanced digital technologies; (iii) measures aimed at fostering the digitalisation of Greek's businesses and (iv) measures aimed at bridging the current gap in the human capital dimension, with a focus on digital skills. Overall, these measures are expected to contribute to improving the competitiveness and resilience of the Greek economy, while ensuring inclusiveness. In addition, these measures are expected to bring a transformational change and have a lasting impact.

As regards connectivity, component 2.1 includes both reforms and investments aiming to foster and facilitate the widespread deployment of very high capacity networks, including 5G and fibre, in line with the EU 2025 connectivity objectives and with the 5G Action Plan. Reforms such as those which are included in the Connectivity Toolbox ,are expected to facilitate investments in very high capacity networks by private operators in particular by removing unnecessary administrative hurdles to investments in networks, by expediting licensing procedures and by reducing the deployment cost and facilitating the whole network deployment process. These measures also complement and increase the impact of existing national support measures such as the "Ultra-Fast Broadband" (UFBB) project and the National Fund for 5G (called "Phaistos Fund"), with a view to increasing fixed and mobile and broadband coverage and take-up by households and businesses.

On e-government and digital public services, a number of investments and reforms are planned notably under component 2.2, but also under pillars 3 and 4. These reflect Greece's strategic goal to switch into a "digital by default" mode by 2023 and envisage the end-to-end redesign and simplification of many government services to citizens and businesses. This is particularly important to address the low supply and use of digital public services, both at central and decentralised level, by transforming Greek cities into smart city champions offering modern, customer-oriented services. The digitization of key archives in key services (justice, urban planning agencies, cadastre, immigration & asylum) and their integration in the relevant IT systems, coupled with system interoperability initiatives that allow the application of the 'once-only' principle, creates a solid foundation for the digital transformation of public sector entities, and the reduction of the administrative burden to citizens and businesses.

This is also complemented by reforms and investments related to digital capacities and advanced technologies, such as the envisaged measures on cloud infrastructures and cybersecurity contained under component 2.2. Investments in cloud computing and big data are aimed in particular to allow linking back office and front office processes to ensure interoperability of systems, processes, applications and services, and are ultimately expected to improve the provision of public services to government actors, citizens and businesses. In addition, the component envisages the development and implementation of a cybersecurity strategy and a set of cybersecurity policies to increase the reliability and security of public sector systems and data and improve citizens' trust in their interaction with the public sector, the creation of a National Cybersecurity Operations Center (SOC) and the provision of advanced Security Services in G-Cloud critical infrastructure, to improve the security of the public sector's central infrastructures and information systems against cybersecurity threats. The implementation of this comprehensive set of measures is expected to significantly step up the digital transformation of the public sector - central, regional and local government entities – and improve the provision of public services in Greece to citizens and businesses. This is in turn expected to have a long-lasting impact for the public administration, as well as for citizens and businesses, by removing existing digital barriers and providing more interoperable, secure and user-friendly digital public services.

The recovery and resilience plan also encompasses sizeable measures to foster the digitalisation of Greek's businesses, notably SMEs, under component 2.3. The reforms and investments included in the plan are expected to foster the take up of digital technologies by SMEs and enable them to adopt and develop innovative digital solutions, tailored to the specific needs of their industries, to expand SMEs' digital presence, for instance through participation in e-commerce platforms, and to reduce their operating costs, for instance through more efficient data processing. Component 4.6 also includes a measure called 'Accelerating Smart Manufacturing', which aims to provide financial support for small and medium manufacturing enterprises to enhance their technological infrastructure, upgrade their manufacturing equipment using state-of-the-art smart technologies with low environmental impact and ultimately accelerate the industry's transition to Industry 4.0. Although these measures are more of horizontal nature, these are also expected to contribute to the digital transition of the Greek industry.

The plan also includes measures aimed at bridging the current gap in the human capital dimension, by modernizing and upgrading the life-long learning system and by ensuring an upskilling and reskilling system for the workforce that correspond to the need of the market, with a focus on digital skills. Such measures are expected to contribute to bridging the digital divide and to reinforce basic digital literacy across the entire population.

Finally, the plan includes measures which also have a cross-border/multi-country digital dimension, such as the '5G corridors' investment that will support the cross-border corridor Thessaloniki-Sofia-Belgrade, the 'Submarine fiber cables' investment that will allow interconnecting mainland Greece with Cyprus, and the 'Small satellites' investment that will ensure interoperability with EuroQCI. The plan also includes investing in a new high performance computing system, the creation of the national SOC and its networking with SOCs of other Member States and the adoption of a national eID system fully compatible with the European one.

Conclusion

Taking into consideration the assessment of all the measures envisaged, the recovery and resilience plan is expected, to a large extent, to make a significant contribution to the digital transition or to address the challenges resulting from it and ensures that at least 20% of its total allocation contribute to support digital objectives. This would warrant a rating of A under criterion 2.6 of Annex V to the RRF Regulation.

4.7. Lasting impact of the plan

Structural change in administration and institutions

The plan presents a series of measures to modernise and digitalise the public administration, which are expected to contribute to the digital transition and to addressing the low level of digital public services. Component 2.2 is particularly relevant in this respect. It is expected to introduce structural improvements in the functioning of key services and to narrow the gap on the quality and use of digital public services, on which Greece ranked 27th among 28 countries assessed in the Digital Economy and Society Index in 2020. Among others, the measures included in the component aim to establish more efficient processes in the public sector, through process simplification and digitalisation initiatives, interoperable public systems, fully digitised registries, and electronic repository and data management systems (cloud infrastructure). Furthermore, the measures included in this component provide for the deployment of advanced tools such as on cybersecurity, artificial intelligence and business analytics. Specific measures are included, aimed to improve digital performance at municipality level and to provide the tools and skills to transform Greek cities into smart city champions. The said initiatives are expected to have a lasting effect on the provision of smart, inclusive and more citizen-centric digital public services, and reduce the administrative burden on citizens and businesses. In addition, the measures directly contribute to the implementation of EU policies such as open data policy compliant with the General Data Protection Regulation, European electronic identity, and data security.

Complementary to the above, the plan aims to achieve institutional resilience through further actions to ensure operational efficiency and sound financial governance. Specifically, key measures under component 4.2 include capacity building and upskilling for a significant part of civil servants (i.e. more than 40% of the workforce), the introduction of modern hiring procedures and a reward system for civil servants, and the establishment of a multilevel governance system to clarify responsibilities between public administration levels and to address current overlaps. These are complemented by measures to strengthen the national anti-corruption framework, and relevant legislative initiatives to facilitate the fight against money laundering and terrorism financing. The component also introduces modern tools on e-procurement and enterprise resource planning to address structural weaknesses in public financial management, including payment execution and effective implementation of public investment projects. Lastly, it provides for the modernisation and strengthening of the governance framework concerning state-owned-enterprises, which is expected to fundamentally improve the operation and services of such enterprises. Jointly with the digital pillar, these measures are expected to fundamentally improve the Greek public administration across all five pillars of the public administration framework [34], namely (i) policy planning, policy coordination and policy development; (ii) civil service and human resource management; (iii) accountability; (iv) service delivery; and (v) public financial management.

[34] The framework has been developed jointly by ECFIN and REFORM, in cooperation with other Commission services.

Digital transformation initiatives under components 4.1 and 4.2 are expected to strengthen the ability of the State to collect taxes, thus tackling ongoing challenges relating to Greece's fiscal sustainability. Measures include the upgrade of core digital systems in the tax administration, the introduction of automated office and work processes, the digitalisation of audits and controls, as well as the improvement of taxpayer e-services. These are expected to improve the working methods and tools at the disposal of the tax authority in the fight against tax evasion and smuggling, and at the same time fortify its autonomy as an independent authority. Coupled with measures to simplify and codify tax legislation, these are also expected to have a lasting impact on reducing the administrative burden for taxpayers and creating a level-playing field for businesses.

A wide-ranging agenda to improve the efficiency and quality of the justice system is also provided under component 4.3, which is key to unblocking bottlenecks to investment. Inter alia, measures include the introduction of digital processes and tools, the upgrade of control management mechanisms, and the training of judges and the judicial staff, with an emphasis on digital skills. The said measures are expected to contribute to structural improvements to the administration and functioning of the justice system, and sustainably reduce the backlog of pending cases.

Further, the plan aims to introduce long term structural changes in the effective delivery and performance monitoring of social services, including for vulnerable social groups. Specifically, investments in digital infrastructure and tools, including e-patient health record and therapeutic protocols in e-prescription, and the reform of the primary health care system under component 3.3, are expected to improve key structural weaknesses currently undermining the capacity and resilience of the health care system. The digital transformation of the social support system under component 3.4, is expected to address inherent weaknesses of the social welfare system and facilitate the implementation of effective social safety nets. Further, component 3.2 provides for the digital transformation of education in terms of curriculum, infrastructure and services, in addition to a new framework for lifelong learning. Complementary to this, component 3.1 aims to address structural weaknesses in the provision of public employment services, by equipping them with modern, digital tools to enable them to carry out their mandate more effectively. Lastly, component 1.2 aims to target energy poor households through the adoption of an energy action plan while allocating a dedicated amount from the planned investment to upgrade the energy efficiency of residencies to energy poor households.

Structural change in policies

Significant measures are introduced which are expected to improve specific policies and regulation, in particular those relating to the ambitious decarbonisation and environmental protection goals. Regarding clean energy, component 1.1 includes measures that aim to increase the share of renewable energy sources in Greece's energy mix, including via speeding up the licensing procedure for new RES plants, to introduce a monitoring mechanism for the recently established energy market, and to support the transition to a low-carbon energy model through enhancing energy efficiency and reducing greenhouse gas emissions. Initiatives to promote Greece's national target for the total phase-out of lignite by 2028 through land rehabilitation measures for the redevelopment of affected areas are also included. Coupled with measures under component 1.2 on energy-efficient renovation and upgrade of buildings and the development of strategic green urban regeneration projects, the plan is expected to sustainably contribute to emission reduction policy objectives. Further, component 1.3 provides for the installation and operation of charging infrastructure for electric vehicles, which is expected to fundamentally contribute to green and sustainable mobility, whilst reforestation initiatives and measures to protect biodiversity are included under component 1.4. Lastly, measures to promote the circular economy and sustainable agriculture, as well as improve urban planning under component 4.6 are expected to credibly contribute to the long term objectives of environmental and climate adaptation policies.

Further, the plan is expected to address a number of structural changes to strengthen capital markets, the business environment, and the extent to which labour policies are effectively implemented. Component 4.4 introduces measures to tackle private indebtedness, assist the monitoring of financial market information and credit expansion, and remove information asymmetries that are expected to address inherent weakness in the financial sector and increase the resilience of the economy to future shocks. Measures under components 4.6 and 4.7 are expected to improve the regulatory and practical environment in doing business and trading, inter alia, by reducing entry barriers, improving the capacity of market surveillance structures and rationalising export processes. The labour market reform under component 3.1 aims to improve the functioning of the labour market, while investment in active labour market policies under the same component is expected to contribute to sustainable job creation. Under component 3.2, the upskilling and reskilling of the workforce, with an emphasis on green and digital skills, is expected to contribute to the robustness of the labour market, by addressing challenges arising from the twin transition.

Lasting impact

The plan includes measures that aim to address the root causes of the identified challenges and not just the symptomatic issues, underpinned by proper analysis, and in a number of cases aim to establish a change in practices. The combination of energy efficiency and energy market reforms is expected to tackle problems associated with energy poverty and Greece's excessive reliance on solid fossil fuels (lignite) for electricity generation. Measures such as the digital upgrade of the rail network are aimed to tackle the absence of smart public transport solutions. Further, the plan is expected to credibly address Greece's low digital performance compared to EU peers, in particular as regards the low provision and use of digital public services and lack of digital skills. The plan also aims to introduce a series of good practices, including in the area of better regulation and impact assessment, and in IT system and process design (i.e. ensure 'interoperability by design', 'once-only' submission of citizen information, open use of data, and customer-centric public services). Reforms and investments, including the upskilling of the public sector staff, the deployment of digital tools, and organisational improvements are expected to enhance the capacity of the public administration to implement and effectively monitor these policies. Further, the measures appear sustainable, as they take into consideration financial and budgetary implications and the possible risks to implementation.

The plan is in line with fundamental rights and EU and national policies, whilst it respects good governance. Specifically, the measures are conducive to key EU priorities provided in the European Digital Policy and European Green Deal. They also aim to promote social inclusion and equality. Further, in line with the principle of good governance, Greece carried out a stakeholder consultation when the initial draft was submitted at the end of 2020 and submitted a summary of the updated draft plan for discussion at the Parliament a few weeks prior to official submission, which was also made publicly available on a dedicated website[35]. Notably, the content of the plan is broadly aligned with the key priorities included in the Greek Government's National Reform Agenda and reflected, in great part, in Development Plan for the Greek economy, developed in 2020 by a group of renowned economists, led by Nobel Prize laureate Christopher Pissarides.

Conclusion

Taking into consideration all reforms and investments envisaged by Greece in its recovery and resilience plan, their implementation is expected, to a large extent to bring about a structural change in the administration and in relevant policies and to have a lasting impact. This would warrant a rating of A under criterion 2.7 of Annex V to the RRF Regulation.

4.8. Milestones, targets, monitoring and implementation

Adequacy of the structure tasked with the implementation of the plan, monitoring of progress and reporting

Greece's structure tasked with carrying out the implementation of the plan, monitoring of progress and reporting is centred around four main bodies that will each have responsibility to execute the management and control system to be established. First, the Recovery and Resilience Facility Coordination Agency (RRF Coordination Agency), part of the Ministry of Finance, constitutes the lead national body tasked with the overall coordination and monitoring of the recovery and resilience plan, including performing active monitoring on the progress of the measures, on the basis of the milestones and targets set for each component and verify their achievement. Second, the responsibility for the implementation of each specific measure is well defined and falls in most cases on the competent Ministry whose services will support the monitoring of the projects' progress and maintain close cooperation with the RRF Coordination Agency and the implementing bodies. Third, all measures in the plan will be implemented by national bodies ("implementation bodies") appointed by the competent Ministries and will be responsible for the achievement of the agreed milestones and targets as well as the reporting of all data and documentation to the RRF Coordination Agency through the management information system to be established for the Recovery and Resilience Facility. The implementation bodies will apply control systems that ensure compliance with EU and national

[35] https://www.minfin.gr/web/guest/tameio-anakampses

law, and the effective use of the Recovery and Resilience Facility funds, which will be further validated by an independent certified auditor. In cases of material delays, the implementing bodies are expected to provide justification and a remediation action plan(s) to the RRF Coordination Agency. Finally, the control of the achievement of milestones/targets is assigned to an external independent certified auditor, who is selected and appointed among the ones registered in the official Register of the Hellenic Accounting and Auditing Standards Oversight Board.

The fourth body is the Financial Audit Committee (EDEL). This Committee, which is part of the General Secretariat for Fiscal Policy (State General Accounting Office) of the Ministry of Finance, has a mission to safeguard the observance of the principles of sound financial management for programmes co-financed with the EU (e.g. European Structural and Investment Funds). The plan also refers to other bodies that, while not foreseen to have a formal role in the management and control system to be established for the Recovery and Resilience Facility, are expected to contribute in the monitoring and implementation. These bodies include the General Directorate of Financial Services in each Ministry, the General Directorate of Public Investments and National Strategic Reference Framework (part of the Ministry of Development and Investments), the Hellenic Court of Audit, the National Transparency Authority, the Central State Aid Unit (part of the Ministry of Finance) and the Authority for the Examination of Preliminary Appeals.

As concerns the reforms under the plan, the monitoring role is assigned to the General Secretariat for Coordination. The General Secretariat for Coordination (part of the Presidency of the Government) is assigned (Law 4622/2019) the mandate to monitor the implementation of all government's reforms in general, and in the recovery and resilience plan it is stated that it will have the responsibility to confirm the successful completion of its reforms and the relevant milestones and to inform the RRF Coordination Agency through regular and/or exceptional reporting. While the recovery and resilience plan indicates that the General Secretariat for Coordination is not formally part of the bodies forming the management and control system of the plan, it does not contain details on how the General Secretariat for Coordination is expected to engage with the implementing bodies or whether it falls upon the General Secretariat for Coordination or the RRF Coordination Agency to suggest ways of solving problems that may arise during the implementation of specific measures of the recovery and resilience plan.

The recovery and resilience plan's components fall, to a large extent, under the competency of a Ministry that will then appoint relevant implementing bodies depending on the scope of the measures included under the specific component. However, the measures under some broader components, such as components 1.2, 1.4, 4.2 and 4.6, involve multiple Ministries.

The Greek plan presents a detailed overview of the monitoring and reporting mechanism foreseen. More specifically, the management and control system includes a dedicated monitoring phase covering the whole lifecycle of the measures. This includes analytical processes that will be established, in order for the implementing bodies' to notify the RRF Coordination Agency on a periodical basis on the progress made in the achievement of the milestones and targets. The recovery and resilience plan does not contain any specific information on record keeping, neither on the responsibility of the bodies involved in the implementation, nor how long these records will be kept.

Milestones, targets and indicators

The overall approach taken by Greece in defining milestones and targets over the life-cycle of investments and reforms is as follows: (i) 10 investments are designated as “top investments” based on value and maturity criteria; (ii) 8 reforms are designated as “key reforms” based on impact and maturity criteria; and (iii) all remaining measures are categorised in 28 groups based on their area of focus and aiming to have one Ministry assigned the overall responsibility of each group. The recovery and resilience plan defines milestones/targets for each investment and reform included in the plan.

The milestones and targets of the Greek plan constitute an appropriate system to allow for an efficient monitoring of its implementation. The proposed qualitative and quantitative indicators used for the milestones and targets are sufficiently clear, realistic and comprehensive to ensure that their completion can be traced and verified. Further, the milestones and targets are relevant and acceptable, as their scope reflects the overall objective of the measures, which are assessed as reasonable and cost-effective.

Overall organisational arrangements

As set out in the recovery and resilience plan, the lead body tasked with the overall coordination, the RRF Coordination Agency, is an independent special public service under the Minister of Finance, set up according to the Law 4738/2020. The RRF Coordination Agency constitutes the lead national body tasked with the overall coordination and monitoring of the plan. It is also assigned as the responsible body that submits twice a year the payment request to the Commission, accompanied by a management declaration of sound financial management and the summary of the Financial Audit Committee’s (EDEL) audits, including weaknesses identified and any corrective actions taken.

On the overall administrative capacity, the recovery and resilience plan sets out that the RRF Coordination Agency will be staffed with 40 posts and that all posts are expected to be filled before end of 2021. While the plan provides some details on staff profiles, including that the majority will have a university degree, it does not provide details on how the resources’ needs were assessed or assurances that the allocated resources will be sufficient for the RRF Coordination Agency to successfully carry out its mandate.

The legal mandate of the RRF Coordination Agency is already in place, and the recovery and resilience plan states that the mandate of other bodies involved in the implementation and monitoring of the implementation will be established through a dedicated national legal act. This legal act will establish the overall management and control system, including roles and responsibilities for key bodies, including the Financial Audit Committee (EDEL). The legal act is expected to be adopted before the first payment request will be submitted to the European Commission.

Whereas the plan presents comprehensive coordination, implementation and monitoring arrangements, the implementation of the plan will crucially hinge on the administrative and implementation capacity of the implementing bodies and will need to be closely monitored. The majority of the implementing bodies remains to be identified; hence, it is not possible to assess their implementation capacity. This includes some of the more sizeable investments, such as renovation measures under component 1.2, life-long skilling under component 3.2 and for some measures under component 4.6 on investment and economic and institutional transformation. In some cases, it is not clear how the public-private partnerships foreseen will interact with the local organizations (e.g. on irrigation investments under component 1.4). Further, the Hellenic Development Bank, which has been established recently, is expected to contribute to the implementation of some measures (e.g. measures under components 1.4 and 4.7) and it will be important to ensure that it has sufficient administrative capacity to carry out its task. Similarly, the technical services of the municipalities, including municipal companies, are expected to contribute to the implementation of a number of components (e.g. components 1.2 and 1.4), and their administrative capacity, in particular for the smaller municipalities, is usually restricted and it would be important that additional support from the central level be made available when needed.

The authorities have recently adopted measures to improve the implementation and enhance administrative capacity and the recovery and resilience plan contains further specific measures that are expected to contribute to that objective. In particular, the authorities have recently established a strategic projects pipeline for large infrastructure projects complemented by a project preparation facility that aims to improve and accelerate the planning and maturation of major public investment projects. The public procurement law adopted in March 2021 also introduced substantial improvements to the framework, which was complemented by the adoption of an action plan for the implementation of a new national strategy for public procurement for 2021-2025 in May 2021. Building on this national strategy, the plan contains measures to further improve the efficiency of the public procurement framework (under component 4.2), including the digital transformation of public procurement processes and the set-up of an effective governance system. In addition, component 4.2 also includes measures aiming to enhance the human resources of the public administration, including targeted action towards the technical services of the municipalities. Considering the size of the recovery and resilience plan, it will be important that all implementing bodies are appointed swiftly and that the RRF Coordination Agency has a solid risk management strategy in place to address deviations/delays at an early stage.

Conclusion

The arrangements proposed by Greece in its recovery and resilience plan are expected to be adequate to ensure effective monitoring and implementation of the recovery and resilience plan, including the envisaged timetable, milestones and targets, and the related indicators. This would warrant a rating of A under the assessment criterion 2.8 of Annex V to the RRF Regulation.

4.9. Costing

The recovery and resilience plan presents detailed cost assessments for all investment projects and reforms where cost occur. The cost descriptions vary in the methodology used, but provide an appropriate level of information, based on which reasonability, plausibility, additionally with EU funding can be assessed. Furthermore in combination with the economic and social impact assessment provided in the plan, the cost assessment also allows an evaluation regarding whether the overall costs are commensurate with the economic and social impact expected from the measures as well as their cost efficiency. The Greek government followed a four step approach to determine and verify the cost per project and then aggregate them to the total per component and pillar of the recovery and resilience plan. These steps are: 1) developing a specific report per project; 2) examination of available costing information and data; 3) detailed breakdown of all major cost items and decision on costing methodology; and 4) cost verification per project, per component and at plan level.

A cost analysis report was produced for each project, which includes a short description of its main characteristics, an overview of the timeline and milestones or targets to be achieved and a breakdown of the project budget. This budget breakdown contains the estimated cost excluding value added tax, and includes information regarding the start of the project and assurances that none of the costs have been incurred before February 2020 as well as information regarding recurrence of the cost. The budget also includes information regarding costs that are covered by other private parties or Union financing, in which case they have been taken out of the project cost to ensure there is no double funding. Furthermore, this part of the cost analysis reports also contains information regarding the methodology used for estimating the cost, the critical cost drivers, unit costs and the total number of units, and the estimation of the total budget per project. The report also contains references to supporting material, such as relevant studies as well as historical and comparative costs of similar projects that were used to validate the project cost.

In terms of costing methodology, the plan presents three different approaches (bottom up cost calculation, parametric cost calculation and top down cost estimation) depending on the maturity of a project and the availability of data. The bottom up approach estimates the cost of each granular cost driver and then aggregates the cost of the individual units to an estimated total cost of the project. The parametric approach relies on similar projects and historical figures to estimate the project cost; and the top down cost estimation approach apportions the total cost to individual cost parameters. This approach also heavily relies on historical data but also takes into account expert judgement, especially in cases where there is limited comparable costing information available. The cost analysis reports have been prepared in collaboration with an external consultant, which cannot be seen as an independent body due to contractual relationship with the Greek government. The cost estimates have been assessed by Greece’s National Productivity Board, which finds them to be reasonable, plausible and commensurate and in conclusion has validated the cost estimates.

Reasonable costs

To justify the reasonability of the cost estimates provided, the Greek government provided detailed breakdowns of the project cost. The cost estimates include costing tables that break down the overall cost into different items, and allow the identification of the main cost drivers and how the overall cost of the project has been estimated. The underlying calculations and assumptions for the cost estimations can be well understood and are sound for a majority of the measures. The detailed costing summaries also provide an overview of the methodological approach used in the estimation of the cost, with the bottom up approach being the one used most frequently. Some of the investment projects are expected to create recurrent cost, due to the nature of the investment, but these cases are limited in number and duly justified and well explained. All cost breakdowns only include cost that have been incurred after February 2020 and the value added tax has been excluded from the cost calculations. Overall, the estimated cost across the investment and reform projects are appropriate for the specific measures and have been sufficiently justified for the majority of the measures.

Plausible costs

The Greek government provided sufficient information and evidence regarding the plausibility of the cost of the planned reforms and investments by showing that the estimated total cost of the plan are in line with the nature and type of the envisaged projects. As part of the detailed project cost breakdown, the Greek government has included a justification why the estimated cost are in line with the nature and type of the project, and should be regarded as plausible. These justifications are generally supported by reference projects that are comparable and have been concluded recently either in Greece or other EU Member States, relevant studies, tender documentation of recently conceded tenders of comparable projects and average market rates. For some projects, that are of very innovative nature or will be supporting specific action for instance via demand driven schemes and therefore cannot be directly compared to other existing projects, scientific sources and input cost have been used to substantiate the plausibility of the cost estimates. A limited number of projects is not sufficiently substantiated with cost of comparable project or the evidence cited could not be accessed. Where estimated project cost exceed the project cost of the reference projects, the excess remains generally within an appropriate range.

No double Union financing

Most of the measures proposed in the recovery and resilience plan are funded at 100% from the Recovery and Resilience Facility and in the few exceptions, where other funding sources are used, sufficient information has been provided. The Greek government has provided information for each measure regarding the funding sources, with the large majority relying on 100% financing from the Recovery and Resilience Facility. In the few cases that also use national or other EU funding sources, the information regarding the amounts and costing items that are not covered under the Recovery and Resilience Facility have been provided as part of the cost breakdown per measure. The costs that are covered by other than Recovery and Resilience Facility funding sources have been taken out of the overall cost that will be supported by the Facility, therefore providing a clear delineation and avoiding double funding. Therefore the plan ensures that the support of the Recovery and Resilience Facility is expected to be additional to the support provided under other Union funds and programmes and does not cover the same cost.

Commensurate and cost-efficient costs

Due to its significant positive economic and social impact and positive assessment regarding the reasonability and plausibility of the cost, the total cost of the recovery and resilience plan can be assessed as commensurate to the expected social and economic impact of the envisaged measures. As outlined in section 4.3, the measures foreseen as part of the plan are, when assessed jointly, expected to have a significant economic and social impact, counteracting some of the adverse effects of the economic crisis caused by the coronavirus pandemic as well as fostering structural changes in the economy and society. The cost associated with these measures have been well explained and assessed as reasonable and plausible and therefore are commensurate to the expected social and economic impact.

Conclusion

The justification provided by Greece on the amount of the estimated total costs of the recovery and resilience plan is to a medium extent reasonable, plausible, in line with the principle of cost-efficiency and commensurate to the expected national economic and social impact on the economy. Greece has provided sufficient information and evidence that the amount of the estimated cost of the reforms and investments of the recovery and resilience plan to be financed under the Facility is not covered by existing or planned Union financing. This would warrant a rating of B under the assessment criterion 2.9 of Annex V to the RRF Regulation.

4.10. Controls and audit

Robustness of internal control system and distribution of roles and responsibilities

The Greek plan describes its implementation system, which is a tailored-made Management and Control System defined as the MCS. The coordinating body will be the Recovery and Resilience Facility Coordination Agency, which will perform active monitoring on the progress of the projects, and verify the achievement of the milestones and targets set for each component and/or reform and investment. The Recovery and Resilience Facility Coordination Agency will also submit the payment requests to the European Commission, upon verification of the achievement of the milestones and targets through the RRF Management Information System (MIS), accompanied by the management declaration, as well as a summary of the audits carried out, including weaknesses identified and any corrective actions taken. The Implementing Bodies (IBs) will undertake the management and implementation of the approved projects, which will be checked by independent certified auditors, while the Ministries will support the monitoring of the projects' progress. EDEL, which is the competent Audit Authority for European Structural and Investment Funds since 2001, will be responsible of auditing the entire process before the payment claims will be submitted by the Recovery and Resilience Facility Coordination Agency.

The system presents a robust process and structure, where the roles and responsibilities are clearly defined and the relevant control functions are appropriately segregated. The independence of the control bodies is ensured, as the Recovery and Resilience Facility

Coordination Agency is an independent special public service under the Minister of Finance, set up according to the Law 4738/2020.

Adequacy of control systems and other relevant arrangements

The Management and Control System states the procedures that are in place to ensure compliance to applicable Union and national law, throughout the implementation of all measures. Furthermore, it clearly addresses all serious irregularities (fraud, corruption, conflict of interest) and potential double funding by allowing for controls and audits to be implemented in separate and distinctive levels. In particular, during the first level, independent certified auditors will implement audits on behalf of the implementing bodies to verify i) the fulfilment of the agreed milestones and targets that are associated with Recovery and Resilience Facility funding requests, ii) the compliance with EU and national law and iii) the avoidance of serious irregularities and double funding. On top of the above and upon discretion, Recovery and Resilience Facility Coordination Agency may entrust to external auditors to perform verification of milestones and targets achievement, on its behalf. Moreover, EDEL will carry out the second level audits, as part of its mandate/authority to exercise such tasks.

The proposed measures give assurance that there is an adequate level of control to prevent, detect and correct irregularities identified when using funds provided by the Recovery and Resilience Facility. The adoption of measures for the prevention and management of the risk concerns either individual measures that will be implemented by an Implementing Body, or a proposal for horizontal measures that should be integrated in the prescribed procedures of RRP MCS (e.g. introduction of a new checkpoint in a checklist). The Recovery and Resilience Facility Coordination Agency will put in place a policy related to conflicts of interests to mitigate the risks and to tackle possible cases. Therefore, analytical procedures will be designed as a part of the MCS, tools will be provided to help identify the existence of a possible conflict of interest and a relevant list of red flags will be available to detect such situations. Financial corrections will be applied to errors with a financial impact, in accordance with the national regulatory framework. The financial corrections relate to the cancellation of all or part of the Union and/or national participation in a project, within the framework of its financing by the Recovery and Resilience Facility, and the correction is proportionate to the irregular expenditure found.

There are also no specific risks identified concerning irregularities to each components. Data on final beneficiaries are stored by the RRF Management Information System as well as contractors, sub-contractors, beneficial owners, and a list of any measures for the implementation of reforms and investment projects under the recovery and resilience plan. In addition, the Commission needs reassurance that a system will be operational, that (a) ensure the collection of data and monitoring of the achievement of milestones and targets; (b) allow for the preparation of management declarations and the audit summary as well as payment claims and (c) establish the necessary procedures to collect and store data on beneficiaries, contractors, subcontractors, and beneficial owners in accordance with Article 22 of the Recovery and Resilience Facility Regulation before the first payment request is made. A dedicated audit report on the system set up will be undertaken. In case that the report identifies any weaknesses, the audit report will recommend corrective actions. This will be implemented through a dedicated milestone.

Adequacy of arrangements to avoid double EU funding

The avoidance, detection and prevention of double funding will be ensured at all stages of the projects' lifecycle, through robust procedures structured within the RRF Management and Control System. First, all Implementing Bodies will have to declare, via the submitted Fiche in the RRF Management Information System, that no previous Union funding has been granted for the same project (during the current or previous period). Moreover, the structure of RRF Management Information System shall allow for the cross-checking, detection and consolidation of all possible data sources that are related to the IBs funding and systemically shall separate their different EU funding streams. This level of consolidation and transparency will ensure the early detection and avoidance of double funding from the Recovery and Resilience Facility and other EU programs, while it will act as a preventing factor for the IBs. The data collection and consolidation will heavily rely on synergies and interoperability between the different information systems, while double funding cases will be flagged through (existing) Business Intelligence tools. For example, the RRF Management Information System, which will be developed in the same platform as the existing platform, used for European Structural and Investment Funds, will be able to exchange data and apply cross-checks with all the different EU related data sources. Accordingly, the RRF Management Information System will be interoperable with other information systems of the Public Sector. Further, an additional safeguard to prevent double-funding between the programs under the Recovery and Resilience Facility, will be the assessment of the use of electronic invoices on the basis of the new OpenPEPPOL protocol. In this way each invoice will be unified within the Management Information System and therefore could not be financed from another source. Finally, the independent external auditors will also examine during their audits the existence of a possible double funding. Audit reports will be performed at all phases of the projects and uploaded to the RRFA Management Information System, followed by a declaration of non-receiving double funding for the same project (or milestone). Moreover, EDEL will also cover the above issue during its audits.

The arrangements put in place are sufficient and adequate in their description, thanks to the RRF MIS that will allow for cross-checking, detection and consolidation of all possible data sources that are related to the EU funding under the remit of the relevant IBs. The data collection and consolidation will heavily rely on synergies and interoperability between the different information systems, as well as the use of the new OpenPEPPOL protocol, as explained above.

Legal empowerment and administrative capacity of control function

Roles and responsibilities of the actors for controls and audits are clear, relevant control functions are appropriately segregated and the independence of actors performing audits is ensured. The Recovery and Resilience Facility Coordination Agency is an independent special public service under the Minister of Finance, set up according to the Law 4738/2020, and constitutes the lead national body tasked with the overall coordination and monitoring of the recovery and resilience plan. Regarding the Audit Authority, the mandate of EDEL to audit the plan will be provided in a dedicated national legal act, which will include all involved actors, as well as management and control system responsibilities and procedures. It is indicated that the Recovery and Resilience Facility Coordination Agency will have 40 staff positions in total that will be covered mainly (at least by 50 percent) by permanent staff of the Public Sector, consisting of 29 University Education, 4 Technological Education and 5 Secondary Education employees. The organizational structure and responsibilities of the Recovery and Resilience Facility Coordination Agency may be amended to fully reflect the processes of the Management Control System, as soon as it is finalized, but the current staffing plan gives reasonable assurance of the administrative capacity of the Recovery and Resilience Facility Coordination Agency.

The necessary legislative arrangements in the organizational structure of EDEL will be made to **establish a new dedicated Unit** within the General Directorate for the Audits of Co-financed Programs, under the Financial Audit Committee. For this new Unit, additional dedicated staff positions will be foreseen, although the amount of staff is not clearly indicated. It is foreseen that the positions will be covered by transferring staff from existing positions of the General Directorate or from other units of the Ministry of Finance, as well as by secondment from other services and entities of the General Government. The option of outsourcing some of the audit tasks is also foreseen.

The pending mandate of EDEL to audit the recovery and resilience plan, which will only be provided by a dedicated national legal act for the implementation of the Recovery and Resilience Facility, upon approval of the recovery and resilience plan is a shortcoming. This shortcoming is addressed through the implementation of a dedicated milestone.

The chapter on audit and control gives a complete description of the arrangements for the implementation and control of the plan in Greece. At plan level, the report is very detailed and gives the Commission reasonable assurance that there is a sound structure in place to monitor and implement the allocated funds from the RRF.

Conclusion

The arrangements proposed by Greece in the recovery and resilience plan to prevent, detect and correct corruption, fraud and conflicts of interest when using the funds provided under the Facility, including the arrangements aimed to avoid double funding from the Facility and other Union programmes, are assessed to be adequate, provided that the pending issues are addressed before the first payment request, through the dedicated milestone. This would warrant a rating of A under the assessment criterion 2.10 of Annex V to the RRF Regulation.

4.11. Coherence

Mutually-reinforcing measures

The recovery and resilience plan is based on the comprehensive Development Plan for the Greek economy, which ensures its coherence towards contributing to smart, inclusive and sustainable economic development. It is structured around four main pillars ("Green

Transition", "Digital Transformation", "Employment, skills and social cohesion", "Private Investments and Transformation of the economy"), which include measures that are mutually reinforcing, as they are supposed to generate synergies when implemented.

The measures from the green and digital transition part of the plan are highly interlinked. They contain measures related to the digital transformation, which are key enablers for the green and circular transition of the Greek economy. For example, measures under the component 2.3, i.e. digitalisation of businesses, focuses on increasing the digital maturity of businesses by creating a digital infrastructure through funding and digital awareness schemes, which will also facilitate implementation of the measures under the green transition, for example electrification of the transport sector). Similarly, the inclusion of climate-related and sustainability criteria from the green transition pillar will enable deployment of digital technologies and contribute to the digital transition.

The third pillar on employment, skills and social cohesion includes measures ensuring that digital and green transitions will be fair across different parts of the Greek society, by prioritising sustainable job creation, improvement of the education system and skills, and the provision of high quality and effective health and social care services.

The fourth pillar presents measures for boosting competitiveness and innovation by mobilising private and public investment and setting up institutional frameworks, which will enable the digital and green transition to materialise in Greece.

Complementarity of measures

The Greek plan is coherent and exploits complementarity between measures and between components. The plan builds upon and is consistent with the comprehensive Development Plan for the Greek economy, prepared in 2020 by a committee led by the Nobel laureate, Professor Pissarides. Measures are carefully designed to satisfy the fulfilment of the country-specific recommendations. In order to promote wider coherence across instruments, notably with the European cohesion policy funds, a balanced territorial allocation of resources is encouraged.

The components related to the green transition, such as 1.1, 1.2 and 1.3 reinforce each other and act as complementary reforms and investment as they jointly contribute to the energy transition. The objective of these measures is on the one hand, producing cleaner energy and on the other, saving on the final consumption of the energy, while ensuring EU climate and energy goals by 2030. The aim of the reforms of component 1.1 – "Power up" - is to contribute to the climate and energy plans through investments and reforms that intend to accelerate the development of renewables as well as their integration through upgraded networks and enhanced interconnectivity. All this is complementary to the sustainable development of the Greek economy, contributing to healthier and cleaner future for the Greek society. The reforms and investments of "Renovate" under component 1.2 aim to increase energy efficiency and increase the energy performance of the building sector, and are coherent with enhancing economic growth, creating job opportunities and promoting social resilience. The reform "Energy Poverty Action Plan" is linked with the investment "Energy renovation on residential buildings" as it aims to provide a framework for the energy upgrade of the residential buildings of energy-vulnerable households and other social groups. The reforms and investments of “Recharge & Refuel” under component 1.3 aim to increase sustainable mobility, enhance economic growth, create job opportunities and promote social resilience. The reform “E-mobility - Framework for installation and operation of EV charging” is linked with the investment “Electromobility” aiming to provide legislative amendments towards the electrification of the Greek transportation sector. The reforms and investments from component 1.4 on “Sustainable use of resources, climate resilience and environmental protection” aim to improve sustainable management and are coherent with the protection of natural environment, the development of the circular economy and the enhancement of civil protection.

The Greek plan also presents measures for the digital transition under components 2.1, 2.2 and 2.3, which are complementary to the measures under the public administration (component 4.2), research and innovation (component 4.5), as well as modernising key economic sectors (component 4.6) components. Measures linked to digital transformation reforms and investments, together with simplified taxation system are also coherent and consistent with the better and more functional justice system (component 4.3) and strengthening the financial sector and capital markets under component 4.4. Measures and investment under the former two components will contribute to improved business environment, creating friendlier conditions for the investors and companies by modernising procedures and institutional frameworks. Component 2.1 “Connect” presents the necessary reforms for the transition to fast broadband connections and pave the road towards 5G technology; and components 2.2 and 2.3 aim to modernise the Greek public sector by improving its operational model, and achieving the provision of enhanced, quality services to citizens and businesses. These measures coherently contribute to the digital transformation of the public sector and SMEs, improving business process, increasing interoperability of systems and data, ensuring cybersecurity and extending the use of advanced technologies such as cloud computing and big data. Socio-economic policies and measures, related to the labour market (component 3.1), job creation and education, training and skills (component 3.2), are complementary and go hand in hand with the green and digital transition. For instance, there are measures promoting digital skills and training on green transition, such as on circular economy. Those will notably create new job opportunities and demand new skilled and educated citizens, which are issues covered with the measures under the respective components under pillar 3.

Measures and policies from the digital transition and modernising business environment, improving competitiveness and promoting private investment are expected to create sustainable and better growth prospects. They are also coherent with the health and social measures presented in the plan. Here it is worth mentioning the final component 4.7, which seeks to reform the Greek business environment, and is paired with the provision of the relevant financial incentives for private investment. Those will simplify the business environment and upgrade its quality and safety, while at the same time ensuring targeted interventions, a business-friendly ecosystem and the reduction of administrative costs. They are complemented with financial incentives for private investments (the loans from the Recovery and Resilience Facility, utilised in ways that are compatible with fiscal sustainability and limit exposure to taxpayers) that will be used to promote investment with eligibility firmly grounded on economic foundations, including the green and digital economic transition.

Conclusion

Taking into consideration the qualitative assessment of all components of Greece's recovery and resilience plan, their individual weight (importance, relevance, financial allocation) and their interactions, the plan contains measures for the implementation of reforms and public investments which, to a high extent, represent coherent actions. This would warrant a rating of A under the assessment criterion 2.11 of Annex V to the RRF Regulation.

5. ANNEX

Table 9 Climate tracking and digital tagging

Note: While the total cost of Greece's Recovery and Resilience Plan exceeds the total allocation of non-repayable financial support and loans to Greece, Greece will ensure that all spending related to the measures mentioned in this table as contributing to climate objectives are fully financed by the funds from the Recovery and Resilience Facility.

			Climate		Digital	
Measure/Sub-Measure ID	**Measure/Sub-Measure Name**	**Budget (EUR m)**	**Int. field**	**Coeff. %**	**Int. field**	**Coeff. %**
16926	Support of the installation of storage systems to enhance RES penetration	450	033	100%		
16871	Revitalization actions of the most affected territories_Nature and biodiversity protection	74	050	40%		
16870	Interventions for the electricity interconnection of islands and the upgrading of the electricity network	195	033	100%		
16901	HEDNO network upgrades aiming at enhancing resilience and protecting the environment	60	037	100%		
16900	HEDNO overhead network upgrading in forest areas	40	037	100%		
16899	Installed capacity increase in Hellenic Electricity Distribution Network Operator (HEDNO) HV/MV substations for new RES connection	12	028	100%		
16865	Restructuring and enhancement of the RES CHP Account revenues	202	028	100%		
16872	Energy renovation on residential buildings	1 253	025bis	100%		

			Climate		Digital	
Measure/Sub-Measure ID	**Measure/Sub-Measure Name**	**Budget (EUR m)**	**Int. field**	**Coeff. %**	**Int. field**	**Coeff. %**
16873	Green Interventions - Interventions in residential areas and in the building stock_Adaptation and climate resilience measures	160	037	100%		
16873	Eleonas/ Votanikos - Interventions in residential areas and in the building stock_Energy efficiency measures	116	026	40%		
16873	Athens Reviera - Interventions in residential areas and in the building stock_Cycling infrastructure	44	075	100%		
16873	Other Strategic Interventions - Interventions in residential areas and in the building stock_Nature and biodiversity protection	31	050	40%		
16873	Other Strategic Interventions - Interventions in residential areas and in the building stock_Energy efficiency measures	77	024ter	100%		
16873	Other Strategic Interventions - Interventions in residential areas and in the building stock_Construction of new energy efficient buildings	47	025ter	40%		
16874	Energy and entrepreneurship	450	024ter	100%		
16876	Energy upgrade of public sector buildings	200	026bis	100%		

			Climate		Digital	
Measure/Sub-Measure ID	**Measure/Sub-Measure Name**	**Budget (EUR m)**	**Int. field**	**Coeff. %**	**Int. field**	**Coeff. %**
16875	Infrastructure development and buildings' restoration in former royal estate in Tatoi	40	026	40%		
16932	Olympic Athletic Center of Athens	11	026	40%		
16879	Preparation of Urban Plans in implementation of the urban policy reform	250	036	100%		
16831	Produc- E Green	300	027	100%		
16924	Charging Points – Electromobility_Alternative fuels infrastructure	80	077	100%		
16924	Electric busses – Electromobility_Clean urban transport: rolling stock	100	074	100%		
16924	Electric taxis - Electromobility_Battery driven vehicles	40	N/A [36]	100%		
16898	Water Supply Projects	290	039bis	40%		
16849	National Reforestation Plan and Parnitha flagship investment	224	037	100%		
16846	Renovated infrastructure - Urban Wastewater and Sludge Management	45	041bis	40%		

[36] The 'Methodology for climate tracking' annexed to the Recovery and Resilience Facility Regulation (2021/241) does not set out intervention fields that would allow for climate or environmental tracking of electric vehicles or plug-in hybrid vehicles, except for vehicles for urban transport falling under intervention field 074. According to Article 18(4)(e) of the Regulation, the methodology should however 'be used accordingly for measures that cannot be directly assigned to an intervention field listed in Annex VI'. In this context, the Commission has applied a 100% climate contribution coefficient for zero-emission vehicles of all categories (this includes battery electric and fuel cell/hydrogen-powered vehicles).

			Climate		Digital	
Measure/Sub-Measure ID	**Measure/Sub-Measure Name**	**Budget (EUR m)**	**Int. field**	**Coeff. %**	**Int. field**	**Coeff. %**
	Infrastructures from Wastewater Treatment_Compliant with energy efficiency criteria					
16285	Investments in the national irrigation network through PPP schemes	200	040	40%		
16850	Drinking Water Supply and Saving Infrastructures	200	039bis	40%		
16911	Aerial means for crisis management	155	036	100%		
16882	Flood mitigation projects	110	035	100%		
16912	Forest firefighting, prevention and response equipment	115	036	100%		
16851	Biodiversity protection as a driver for sustainable growth	100	050	40%		
16909	Infrastructure - Establishment of a strategic National Disaster Risk Management	74	036	100%		
16910	Monitoring and Management System	45	036	100%		
16283	Implementation of Regional Civil Protection Centers (PEKEPP) through PPP schemes	19	025ter	40%		
16855	Small-satellites	200			055	100%
16834	5G Corridors – Develop 5G networks that will provide coverage of all Greek motorways that are part of the Trans-European	160			054bis	100%

			Climate		Digital	
Measure/Sub-Measure ID	**Measure/Sub-Measure Name**	**Budget (EUR m)**	**Int. field**	**Coeff. %**	**Int. field**	**Coeff. %**
	Transport Networks					
16962	Submarine fiber cables	30			051	100%
16818	Fiber optic infrastructure in buildings	131			053	100%
16778	Digitisation of archives and related services	598			011	100%
16810	CRM for the General Government	56			011	100%
16780	Further Modernisation of Public Administration's One-Stop Shops	19			011	100%
16736	New system for Public Procurements	17			011	100%
16742	Digital transformation of the Ministry of Foreign Affairs	49			011	100%
16826	Digital skills upgrade programs for conscripts	32			108	100%
16791	Digital Transformation of the Greek National Tourism Organisation	8			011	100%
16823	Cybersecurity strategy and policies for the Public Sector & advanced security services for national critical infrastructures	49			011	100%
16779	Interoperability and web services development	72			011	100%
16965	Data Classification Studies for Public Sector's Information Systems	2			011	100%
16964	Next-Generation Interoperability Centre	3			011	100%

			Climate		Digital	
Measure/Sub-Measure ID	**Measure/Sub-Measure Name**	**Budget (EUR m)**	**Int. field**	**Coeff. %**	**Int. field**	**Coeff. %**
	(KED)					
16824	ERegistries	24			011	100%
16785	Tourism Registry e-MHTE	8			011	100%
16854	Smart cities	73			055	100%
16853	Supply of Central Cloud Computing Infrastructure and Service	95	011bis	40%	011bis	100%
16955	Upgrade of Cloud-computing infrastructure and services of the National Infrastructures for Research and Technology (GRNET)	63	011bis	40%	011bis	100%
16287	Enhancement of Public Sector's Business Continuity	39			011	100%
16956	Expansion of Syzefksis II	26			011	100%
16827	Data Governance strategy & policies for the Public Sector	26			011	100%
16842	Central BI - Data Analytics	16			011	100%
16738	Central Document Management System	5			011	100%
16706	Digital Transformation of SMEs	375			010	100%
16750	Digital Transformation of Labour Systems	77			011	100%
16747	Green skills, jobs, economy - Active Labour Market Policies Reform_Contributing to green skills and jobs and the green economy	100	01	100%		

			Climate		Digital	
Measure/Sub-Measure ID	**Measure/Sub-Measure Name**	**Budget (EUR m)**	**Int. field**	**Coeff. %**	**Int. field**	**Coeff. %**
16942	OAED Digitalization	17			011	100%
16913	A New Strategy for Lifelong Skilling: Modernising and Upgrading Greece's Upskilling and Reskilling System_Digital upskilling	690			108	100%
16913	Green skills, jobs, economy - A New Strategy for Lifelong Skilling: Modernising and Upgrading Greece's Upskilling and Reskilling System_Contributing to green skills and jobs and the green economy	350	01	100%		
16794	Green Schools - Strengthening the Apprenticeship System_Energy efficiency renovation or energy efficiency measures regarding public infrastructure	108	026bis	100%		
16792	Labor force skilling, reskilling and upskilling through a reformed training model (Vocational Education & Training Reform)_Contributing to green skills and jobs and the green economy	55	01	100%		
16676	Digital transformation of Education	365			011	100%
16755	Green investments - Reform of the Primary Health Care System_Energy efficiency	189	026	40%		

			Climate		Digital	
Measure/Sub-Measure ID	Measure/Sub-Measure Name	Budget (EUR m)	Int. field	Coeff. %	Int. field	Coeff. %
	renovation or energy efficiency measures regarding public infrastructure					
16795	NHS Hospital Renovation and Infrastructure Upgrade	317	026	40%		
16752	Digital Transformation of Health (DigHealth)	278			095	100%
16793	Project for the construction of a building dedicated to Cellular & Gene Therapies and Hematology Clinic Laboratories within the General Hospital of Thessaloniki “Papanikolaou”	6	025ter	40%		
16925	Digital Transformation of the social support system	12			011	100%
16763	Digital transformation of the immigration and asylum system	42			011	100%
16611	Digital transformation of tax audits	5			011	100%
16616	Adoption of measures and incentives to increase electronic transactions	0.5			011	100%
16291	Digital Transformation of the Tax and Customs Administration	180			011	100%
16705	Digital Transformation of Fiscal Management and Supervision in Governance & Electronic Invoicing	102			011	100%
16940	Modernise the Hellenic Consignment Deposit and	7			011	100%

			Climate		Digital	
Measure/Sub-Measure ID	Measure/Sub-Measure Name	Budget (EUR m)	Int. field	Coeff. %	Int. field	Coeff. %
	Loans Fund					
16292	New Judicial Buildings_Construction of new energy efficient buildings	69	025ter	40%		
16292	New Judicial Buildings_Energy efficiency renovations	27	026	40%		
16727	Digital Transformation of Justice (E-Justice)	81			011quater	100%
16733	Skills and digital skills for judges and judicial employees (judicial staff)	32			108	100%
16581	Enhanced capital market supervision and trustworthiness	12			011	100%
16654	TH 2 ORAX: Trellis Holistic & Hybrid Operational Ruggedized Autonomous eXemplary system	50	037	100%	011	100%
16975	Upgrade Interventions for Regional Ports	20	081bis	40%		
16960	Smart Infrastructure with environmental and cultural focus_Digital sub-projects	82			011	100%
16960	Smart Infrastructure with environmental and cultural focus_ Nature and biodiversity protection	65	050	40%		
16960	Smart Infrastructure with environmental and cultural focus_Air quality measures	27	048	40%		
16959	Digital Transformation of the Hellenic Railways	24	070	40%	070	100%

			Climate		Digital	
Measure/Sub-Measure ID	**Measure/Sub-Measure Name**	**Budget (EUR m)**	**Int. field**	**Coeff. %**	**Int. field**	**Coeff. %**
	Organization					
16954	Interventions for the upgrade and redeployment of the Greek rail network system and infrastructure	130	064	100%		
16950	Electronic Tolls	90	063bis	40%	063bis	100%
16949	Smart Bridges	81			063	100%
16937	Digital Integrated Program Management System for the Administration of the Technical Works and Structural Assets of the Ministry of Infrastructure and Transport	10			011	100%
16931	Tourism Development_Energy efficient measures	111	024	40%		
16931	Tourism Development_Energy efficient measures for public infrastructure	7	026	40%		
16931	Tourism Development_Renewable energy (wind)	7	028	100%		
16931	Tourism Development_Energy efficient measures for public infrastructure	1	026	40%		
16892	Upgrading suburban railway of West Attica	81	073	100%		
16786	Simplification of the Procedures of the Ministry of Infrastructure & Transport	1			011	100%

			Climate		Digital	
Measure/Sub-Measure ID	**Measure/Sub-Measure Name**	**Budget (EUR m)**	**Int. field**	**Coeff. %**	**Int. field**	**Coeff. %**
16721	Acceleration of smart manufacturing	75			010bis	100%
16653	Digital Transformation of the Agri-Food Sector	47			011	100%
16634	New Industrial Parks_Construction of new energy efficient buildings	7	025ter	40%		
16634	New Industrial Parks_ Water management and water resource conservation	4	040	40%		
16634	New Industrial Parks_ Waste water collection and treatment compliant with energy efficiency criteria	25	041bis	40%		
16634	New Industrial Parks_ Renewable energy (solar)	5	029	100%		
16634	New Industrial Parks_ Alternative fuels infrastructure	3	077	100%		
16634	New Industrial Parks_ Water management and water resource conservation	5	040	40%		
16626	Climate related - Economic transformation on the Agricultural Sector_Energy efficiency and demonstration projects in SMEs	62	024	40%		
16626	Climate related - Economic transformation on the Agricultural Sector_Renewable energy (solar)	35	029	100%		
16626	Climate related - Economic transformation on the	7	077	100%		

			Climate		Digital	
Measure/Sub-Measure ID	**Measure/Sub-Measure Name**	**Budget (EUR m)**	**Int. field**	**Coeff. %**	**Int. field**	**Coeff. %**
	Agricultural Sector_Alternative fuels infrastructure					
16626	Climate related - Economic transformation on the Agricultural Sector_Support to environmentally-friendly production processes and resource efficiency in SMEs	170	047	40%		
16599	Digitilization of Economic Diplomacy Network & Exporters Training Program	10			011	100%
16593	Amendment of the legal framework for the attraction of strategic investment_Support to enterprises that provide services contributing to the low carbon economy	45	027	100%		
16593	Amendment of the legal framework for the attraction of strategic investment_Construction of new energy efficient buildings	40	025ter	40%		
16584	Proposals for actions in the Aquaculture Sector	35	047	40%		
16536	Upgrade of infrastructure, renewal of equipment and upgrade of quality of services provided by HOCRED Stores – former ARF Stores (On-spot and electronic)	3	024bis	40%		
16486	Museum of underwater	54	026	40%		

			Climate		Digital	
Measure/Sub-Measure ID	**Measure/Sub-Measure Name**	**Budget (EUR m)**	**Int. field**	**Coeff. %**	**Int. field**	**Coeff. %**
	antiquities					
16433	Protection of cultural monuments and archaeological sites from climate change	20	037	100%		
16293	Culture as a driver of growth	30	026	40%		
16980	RRP Loan Facility_Energy efficiency and demonstration projects in SMEs or large enterprises	1 398	024ter	100%		
16980	RRP Loan Facility_Renewable energy (solar)	1 189	029	100%		
16980	RRP Loan Facility_Renewable energy (wind)	843	028	100%		
16980	RRP Loan Facility_Commercial, industrial waste management	634	044	40%		
16980	RRP Loan Facility_Smart Energy Systems	445	033	100%		
16980	RRP Loan Facility_Support to enterprises that provide services contributing to the low carbon economy	254	027	100%		
16980	RRP Loan Facility_Other renewable energy	206	032	100%		
16980	RRP Loan Facility_Research and innovation processes focusing on the low carbon economy, resilience and adaptation to climate	102	022	100%		

			Climate		Digital	
Measure/Sub-Measure ID	**Measure/Sub-Measure Name**	**Budget (EUR m)**	**Int. field**	**Coeff. %**	**Int. field**	**Coeff. %**
	change					
16980	RRP Loan Facility_Renewable energy (biomass)	47	030	40%		
16980	RRP Loan Facility_Very High Capacity Networks	912			054	100%
16980	RRP Loan Facility_Digitalisation of large entreprises	770			010bis	100%
16980	RRP Loan Facility_ Digitalisation of SMEs	330			010	100%
16980	RRP Loan Facility_Other ICT infrastructure	208			055	100%
16980	RRP Loan Facility_Cybersecurity	120			021quinquies	100%
16980	RRP Loan Facility_Advanced technologies	118			021quater	100%
16980	RRP Loan Facility_Other ICT infrastructure	89			055	100%

Int. Field = intervention field
Coeff. = Coefficient for the calculation of support to climate change objectives and to digital transition, on the basis of Annex VI and Annex VII to the RRF Regulation