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Analysis of the recovery and resilience plan of Ireland

Accompanying the document

Proposal for a COUNCIL IMPLEMENTING DECISION

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

{COM(2021) 419 final}

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1. EXECUTIVE SUMMARY

The COVID-19 pandemic has had a significant impact on the Irish economy, though it was the only Member State with positive real GDP growth in 2020. Ireland's real GDP expanded by 3.4% in 2020, driven by exports of multinational corporations headquartered there. However, private consumption and investment fell sharply. A resurgence of infections brought new lockdown restrictions early in 2021 with yet another large negative impact on private consumption. Nevertheless, GDP growth in the first quarter was very strong, again driven by multinationals' exports, and a strong domestic rebound is expected from the second quarter of 2021 onwards. Substantial government support prevented a surge in unemployment and bankruptcies. The official unemployment rate gradually increased from below 5% pre-pandemic to 7.8% in May 2021, though the COVID-adjusted unemployment fluctuated between a quarter and a third of the labour force during peaks of restrictions. The government response to the pandemic had an impact on the general government balance and debt. The general government deficit was 5.0% of GDP in 2020 and a budget deficit is also expected in 2021 as the pandemic support continues. Risks to the fiscal outlook are tilted to the downside and reflect various sources of uncertainty, such as possible changes in the international corporate taxation environment due to Ireland's significant reliance on potentially volatile corporate tax revenue. The public debt ratio is expected to increase in 2021 on the back of a sustained deficit. In 2020, the debt ratio increased to 59.5% of GDP despite nominal GDP growth of 2.9% in 2020. The debt-to-modified GNI (GNI*) ratio[1], a metric that better captures the public debt burden on the domestic economy, is projected to have reached almost 106% in 2020, up from 95.6% in 2019.

The Irish recovery and resilience plan (the 'plan') amounts to EUR 989 938 300 million, which is slightly above the maximum financial contribution allocated to Ireland under the Recovery and Resilience Facility (RRF) of EUR 988 966 534, equivalent to 0.3% of 2019 GDP. The plan includes a total of 25 measures (16 investments and 9 reforms) structured around three components: (i) advancing the green transition; (ii) accelerating and expanding digital reforms and transformation; and (iii) social and economic recovery and job creation. Ireland did not request any loans.

The plan has the potential to make a positive contribution to Ireland's economic rebound and accelerate the green and digital transitions. It includes measures to front-load private and public green investments and advance environmental, climate, energy and infrastructure projects. Targeted measures are expected to support the reduction of greenhouse gas emissions in sectors responsible for most of the emissions. The plan also includes reforms and investments that are

[1] Modified Gross National Income (GNI*) reflects the underlying economic activity more accurately than GDP by eliminating some of the impact of multinationals. It differs from actual GNI in that it excludes, for example, the depreciation of foreign-owned, but Irish resident, capital assets (notably intellectual property and assets associated with aircraft for leasing) and the undistributed profits of firms that have re-domiciled to Ireland.

set to promote the digital transformation across society and help improve the prospects for welfare and equality, growth and employment.

The reforms and investments underpinning the plan can be expected to contribute to addressing a significant subset of the 2019 and 2020 country-specific recommendations (CSRs). The plan focuses on reforms and investments facilitating the green and digital transitions, but also on active labour market integration support and upskilling. The investments also contribute to the front-loading of mature public investment projects, the promotion of private investment and the use of more direct funding instruments to stimulate research and innovation. Furthermore, the plan commits to reforms in the areas of housing, pensions, health and regulatory barriers to entrepreneurship, while also introducing measures that are expected to partially address challenges related to anti-money laundering and aggressive tax planning. The reforms and investments in the plan are also consistent with the challenges and priorities identified in the most recent Draft Council Recommendation on economic policy in the euro area[2].

The plan pursues the general objective of the Facility to promote the Union's economic, social and territorial cohesion and is balanced in its response to the six policy pillars referred to in Article 3 of the RRF Regulation[3]. Considering all reforms and investments envisaged, taking the specific challenges and the financial allocation of Ireland into account, the plan represents to a large extent a comprehensive, and adequately balanced response to the economic and social situation.

The plan is designed to support economic growth and job creation through investments and reforms. Given the size of the RRF financial contribution, the direct impact from a macroeconomic perspective is expected to be small. Investments and policies to improve energy efficiency and accelerate digitalisation are expected to contribute to creating jobs, as well as improving productivity over different horizons. The plan contains a range of measures that are expected to contribute to social cohesion by supporting employment prospects, particularly through creating work placement opportunities, training and educational programmes. This is expected to help labour adjustment to the post-crisis structures and has the potential to contribute to growth. Furthermore, a set of reform measures included in the plan have the potential to contribute to addressing the high need for social and affordable housing and help ensure timely access to affordable healthcare of good quality, thereby strengthening social resilience. The plan also includes a range of measures that may strengthen the capacity of the economic and social

[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] Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 establishing the Recovery and Resilience Facility (hereafter 'the RRF Regulation').

structures and institutions to adjust to and withstand shocks. A well-functioning internal market remains an essential element of this endeavour.

The measures in the plan have the potential to accelerate the green transition and protect the environment. They are expected to support Ireland's decarbonisation and energy objectives for 2030, as set out in the national energy and climate plan and in the programme for Government, and are thus a step towards achieving climate neutrality by 2050**.** The plan therefore supports a sustainable recovery of the Irish economy. It includes a broad set of measures aiming at improving energy efficiency in private and public buildings, decarbonising industries, promoting sustainable railway mobility, restoring biodiversity through the rehabilitation of peatlands, improving water treatment and facilitating green research and innovation. The plan also commits Ireland to a speedy entry into force of the amendments to the climate law and its associated increase in climate targets, and to securing a significant increase in the carbon tax over the RRF period. With respect to the climate tagging of all three components in the plan, measures contributing to climate objectives account for 42% of the plan's total allocation. Most measures in the Irish plan have passed the ex-ante assessment of the 'do no significant harm' principle. In addition, for some measures, the 'do no significant harm' principle has been reflected in the milestones and targets specified in the Annex to the Commission Proposal for a Council Implementing Decision.

As regards the digital transition, the measures contributing to digital objectives account for 32% of the financial allocation, which is above the 20% minimum requirement of the RRF Regulation. Component 2 (Accelerating and expanding digital reforms and transformation) is fully dedicated to the digital transition. Several measures aim at contributing to the digital transition by supporting the digitalisation of enterprises, addressing the risk of the digital divide, including in the education sector, enhancing digital skills, and supporting the development of digital infrastructure and the delivery of digital public services. In addition, Component 1 is expected to partially contribute to the digital objectives, particularly by supporting digital-related research and development activities.

The implementation of the envisaged measures is expected to have a lasting impact. The plan is fully aligned and integrated into the government's wider national economic and recovery plan, the review of the national development plan, and the forthcoming update of the climate action plan. This is expected to help ensure that the implementation of the plan is well coordinated and lasting. The plan includes several measures that are expected to lead to structural change in public administration, housing, healthcare, education, digitalisation and green policies.

The plan provides an explanation of its internal implementation framework. Responsibilities for individual projects are identified and coordination is to be ensured by a newly created Implementing Body. The plan also includes clear and realistic milestones and targets, whereas the proposed indicators for those milestones and targets are relevant, acceptable and robust. They constitute an appropriate system for monitoring the plan's implementation and assess disbursement requests.

Ireland has provided individual cost estimates for the measures in the plan. The estimates and supporting documents show that the costs are justified, reasonable, plausible and commensurate, in line with the principle of cost-efficiency. The amounts proposed for financing were deemed appropriate and seen as establishing the plausibility of the cost estimates to a medium extent. The avoidance, detection and prevention of double funding from the EU is expected to be ensured at all stages of the projects' lifecycle, through robust procedures structured within the plan.

Ireland's control and audit system is adequate to prevent, detect and correct potential fraud, corruption and conflicts of interest, and avoid double funding. 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 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. Ireland committed in specific milestones to having in place an efficient repository system and to having allocated sufficient administrative capacity to perform such audits by the time of the first disbursement request.

The reforms and investments in each of the individual components are coherent and targeted to the same objectives. The components pursue complementary aims. The measures in each of the individual components are mutually reinforcing, as investments are accompanied by reforms that aim to address underlying structural challenges. There is an adequate balance between investments and reforms in view of the main challenges to be addressed, and between investments in different territories.

Table 1: Ratings of the plan under the eleven criteria

(1) Balanced Response	(2) CSRs	(3) Growth, jobs…	(4) DNSH	(5) Green target	(6) Digital target	(7) Lasting impact	(8) M & T	(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

Ireland's economy grew in 2020, driven by the strong performance of multinational corporations. Real GDP grew by 3.4%, making Ireland the only Member State that registered positive growth in the year when the pandemic erupted. This growth was driven by exports of multinational corporations headquartered in Ireland, particularly those specialised in pharmaceuticals and medical equipment (including COVID-related products) and those operating in the information and telecommunication sectors, while the domestic economy, particularly sectors requiring face-to-face contact, suffered substantially[4]. Public spending rose in order to cushion the economic and social fallout.

Ireland had entered the COVID-19 crisis with vulnerabilities related to its external, public and private sector indebtedness, as identified in the macroeconomic imbalance procedure and confirmed by the in depth review. The pandemic has had an uneven impact on these large stock vulnerabilities. In 2020, Ireland ran a current account surplus and its very negative net international investment position became less negative. Public debt, due to the need to fund various support schemes, has increased. Private debt, due to precautionary savings and constrained ability to consume, has fallen.

The labour market was stabilised by government intervention. The official unemployment rate stood at 5.8% in 2020 while the COVID-adjusted unemployment rate (a measure that adds the recipients of the pandemic unemployment payment) was 21.7%[5], reflecting the degree of the government intervention. Hours worked, another indicator of the labour market health, were 9.4% lower in 2020 compared to the previous year. Support by the EU's SURE instrument, the COVID-19 temporary wage subsidy scheme, has been instrumental in protecting existing jobs and cushioning income losses. Overall, about 71% of the COVID-19-related income shock was cushioned by the Irish tax-benefit system, including the emergency measures[6]. Income support schemes were subsequently extended until the end of 2021. The reopening of the economy is set to improve the labour market situation markedly.

The COVID-19 crisis risks increasing the share of people at risk of poverty or social exclusion. Ireland ranks better than average or among the best performers in the EU in terms of income inequality after social transfers, unemployment rate, early leavers from education and training, and the net earnings of a full-time single worker earning the average wage. However, the employment and social situation of vulnerable groups remains a challenge and is likely to have been exacerbated by the crisis (see Box 3). While the share of people living in low work-intensity households has been decreasing since 2013, it still remains one of the highest in the EU (13.6% in 2019 vs 8.3% in the EU). In the years preceding the COVID-19 crisis, rent increases in big cities and an insufficient provision of social and affordable housing have led to persistent

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[4] See also SWD(2021)126, Post-Programme Surveillance Report, Ireland, Spring 2021, https://ec.europa.eu/info/sites/default/files/economy-finance/ip154_en.pdf

[5] Excluding the months of January and February 2020.

[6] See Christl, M, De Poli, S., Figari, F., Hufkens, T., Leventi, C., Papini, A. and Tumino, A. (2021) "*The cushioning effect of fiscal policy in the EU during the COVID-19 pandemic*", JRC Working Papers on Taxation and Structural Reforms, 02/2021 (forthcoming); and Almeida, V., Barrios, S., Christl, M., De Poli, S., Tumino, A., Van der Wielen, W. (2020): '*Households´ income and the cushioning effect of fiscal policy measures during the Great Lockdown*', JRC Working Paper on Taxation and Structural Reforms, 06/2020, available at https://ec.europa.eu/jrc/sites/jrcsh/files/jrc121598.pdf.

housing challenges. Going forward, with the phasing out of temporary support schemes, social risks and inequalities are likely to increase.

The pandemic has somewhat overshadowed the impact of Brexit on the economy, though the latter still caused disruptions in specific sectors. The UK and EU concluded a Trade and Cooperation Agreement on 24 December 2020. Brexit mostly affected the agri-food sector, due to increased requirements in complying with documents and border delays. On 25 December 2020, the Commission adopted its proposal for a Brexit Adjustment Reserve. The Council and the European Parliament reached a preliminary agreement on the draft Regulation on 17 June 2021. The Brexit Adjustment Reserve is set to help counter the adverse economic and social consequences of Brexit in the Member States and sectors that are worst affected by it, especially when it comes to trading and fishing opportunities. Its overall proposed budget is EUR 5 billion in 2018 prices. Ireland is expected to claim over EUR 1 billion from the Brexit Adjustment Reserve.

HICP inflation in Ireland was low over the recent years and is expected to remain subdued despite some increases in the short run. HICP inflation was negative in 2020 and in the first quarter of 2021, amid low oil prices, weak demand and a 2% VAT cut from 1 September 2020 to 28 February 2021. HICP inflation is set to increase in 2021 due to rising energy prices, supply frictions and increased transport cost, in line with the general euro area inflation trend. Inflation is projected to reach 1.5% in 2021 and increase to 1.2% in 2022 on the back of recovering domestic demand.

In 2020, Ireland's general government deficit was 5.0% of GDP, following a surplus of 0.5% of GDP in 2019, while general government debt increased by 2.1 percentage points to 59.5% of GDP. The increase in the deficit was due to discretionary budgetary measures of 3.9% of GDP in support to the economy and the operation of automatic stabilisers. Ireland also provided liquidity support to companies and households (such as guarantees and tax deferrals, which do not have a direct and immediate budgetary impact), estimated at 1.2% of GDP.

According to the latest public debt sustainability analysis, Ireland faces low sustainability risk in the medium term and medium risk in the long term[7]. Financial market perceptions of sovereign risk are favourable, as reflected in low sovereign bond yields and credit default swap spreads. The interest to revenue ratio was estimated at 4.3% in 2020, compared to 5% in 2019, continuing a decreasing trend from a 25-year peak of 12.6% in 2013. The general government debt-to-GDP ratio remained below the 60% threshold in 2020. However, when scaling government debt with gross national income (GNI) – a more accurate measure of public debt repayment capacity in Ireland – medium-term vulnerabilities appear more significant. The

[7] See also COM(2021)529, Omnibus report under Art 126(3) and SWD(2021)126, Post Programme Surveillance Report, Ireland, Spring 2021. The Debt Sustainability Monitor 2020 contains detailed methodological explanations.

Recovery and Resilience Facility is expected to be a mitigating factor as regards the identified debt sustainability risks, as it should support growth potential through investments and reforms[8].

Table 2: Comparison of macroeconomic and budgetary developments and forecasts

	2019	2020		2021		2022		2023	2024	2025
	COM	COM	RRP	COM	RRP	COM	RRP	RRP	RRP	RRP
Real GDP (% change)	5.6	3.4	3.4	4.6	4.5	5.0	5.0	3.5	3.2	3.1
Employment (% change)	2.9	-1.5	-15.1	-3.5	4.0	5.0	11.0	3.2	2.3	2.2
Unemployment rate (%)	5.0	5.7	18.7	10.7	16.3	8.1	8.2	6.7	6.0	5.5
HICP inflation (% change)	0.9	-0.5	-0.5	0.9	1.1	1.3	1.9	1.5	1.6	1.9
General government balance (% of GDP)	0.5	-5.0	-5.0	-5.0	-4.7	-2.9	-2.8	-1.2	-0.7	-0.2
Gross debt ratio (% of GDP)	57.4	59.5	59.5	61.4	62.2	59.7	60.2	59.0	57.7	55.4

Sources: Commission spring 2021 forecast[9]; RRP – 2021 Stability Programme
Note: The Stability Programme Update of Ireland also include the projected impact of the recovery and resilience plan (RRP).

The macroeconomic projections underlying Ireland's recovery and resilience plan are plausible and seem to be conservative, in view of latest data. According to the plan, real GDP is expected to grow by 4.5% in 2021 and 5.0% in 2022, which was in line with the Commission spring 2021 forecast (see Table 2). However, the first quarter of 2021 outturn was very strong, at 7.8% real GDP growth quarter on quarter, and high frequency indicators point to a strong second quarter. The Commission summer 2021 forecast hence projects real GDP to grow by 7.2% in 2021 and 5.1% in 2022. As the economy is reopening, more people are returning to work already, providing also an upside to the labour projections. Nonetheless, once the pandemic impact wanes and government support is withdrawn, unemployment might be higher than before the crisis due to the potential 'scarring' effects and increased skills mismatches. The authorities expect growth to moderate to 3.5% in 2023, 3.2% in 2024 and 3.1% in 2025. The macroeconomic and fiscal outlook continue to be affected by high uncertainty related to the COVID-19 pandemic and its economic consequences.

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[8] The impact from the EU-level recovery instruments is included in the debt sustainability assessment only in so far as sovereign financing conditions are expected to remain favourable and stable over the medium term.

[9] For the sake of coherence in the macroeconomic scenario presented by the Commission, the table refers to the Commission spring 2021 forecast. According to the Commission summer 2021 interim forecast (containing updated data for GDP and inflation only), real GDP has been revised substantially up on the back of a very strong performance of multinational corporations in the first quarter of the year. In the latest Commission projections, real GDP is expected to grow by 7.2% in 2021 and 5.1% in 2022, while HICP inflation is expected to be 1.5% in 2021 and 1.2% in 2022.

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

Ireland is facing intertwined challenges to sustainable growth, resilience and cohesion, requiring a comprehensive policy response. An overarching objective of the Recovery and Resilience Facility is to support measures along four pillars that address these challenges (in addition to the two RRF pillars supporting the green and digital transitions). First, reforms and investments related to economic cohesion, productivity, and competitiveness can help strengthen the growth potential of the Irish economy and enable a sustainable recovery. Second, tackling challenges related to social and territorial cohesion should ensure nobody is left behind in the economic rebound. Third, the COVID-19 crisis has also highlighted that reforms and investments are important for institutional resilience, including crisis reaction capacity and preparedness. Fourth, policies for the next generation, including education and skills, can help ensure that young people are not permanently affected by the impact of the COVID-19 crisis.

Smart, sustainable and inclusive growth

While Ireland has a business-friendly environment overall, its position in the World Bank's 'ease of doing business' ranking has dropped slightly. In 2020, Ireland ranked 24th, down from 23rd in the previous year. While Ireland's business environment generally remains business-friendly, the most problematic dimensions for the country's ranking are 'enforcing contracts' (91st), 'registering property' (60th) and 'trading across borders' (52nd). As regards enforcement of contracts, Ireland scores poorly on all three indicators (time required to enforce a contract through the courts, cost required and quality of judicial process).

Despite a relatively large share of high growth enterprises in Ireland, challenges to fast growth remain. Fast growing enterprises carry a premium in a recovery context. It is notable that in recent years Ireland's business economy has had the highest percentage of fast growing enterprises in the EU (16% compared to the EU average of 12% for all sectors in 2018 or 28% versus 19% for knowledge intensive sectors in 2018). However, less favourable financing and other framework conditions for high growth enterprises – notably concerning human capital matters – are causes for concern[10].

Productivity in Ireland remains very strong, compared to other advanced economies, pushed up by a limited number of multinational companies. According to the Central Statistics Office, the labour productivity growth rate of the foreign multinational companies sector was on average 9.3% per year between 2000 and 2018, significantly above the 1.5% of the

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[10] See the IE factsheet in: Benedetti Fasil, C., Del Rio, J.C., Domnick, C., Fako, P., Flachenecker, F., Gavigan, J., Janiri, M., Stamenov, B. and Testa, G., High Growth Enterprises in the COVID-19 Crisis Context, EUR 30686 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-37269-1 (online), doi:10.2760/63402 (online), JRC124469

domestic sector and the EU average of 1.3% during the same period. The productivity growth of domestic firms is held back by much lower investment than that going into multinational firms, which widens the dichotomy between domestic and foreign-owned firms. Technology diffusion through the presence of multinationals remains limited. The competitiveness of Irish firms, particularly small and medium-sized enterprises (SMEs), may be held back by the high cost of credit (including access to short-term liquidity and investment capital at affordable rates), commercial properties, insurance and legal services. Ireland scores low on the European Investment Fund's SME access to finance index, ranking 25th out of 28 for the sub-indicator covering bank loans.

In addition to differences in productivity across sectors, Ireland is the EU country that experienced the greatest variation in productivity growth among its regions. Irish regions also perform very differently in terms of location factors for enterprises and residents. While the Eastern and Midland region and, to a lesser extent, the Southern region offer attractive and sustainable environments for firms and residents, the Northern and Western region has comparative shortcomings in terms of infrastructure, market size and efficiency (Regional Competitiveness Index, European Commission, 2019). Equally, according to Eurostat, employment in high-tech and knowledge-intensive services is concentrated in the Eastern and Midland (10.5%) and in the Southern (9%) regions, and is significantly below the national average in the Northern and Western region (5.9%). This results in stark differences in the GDP per head of between the three regions, with the GDP per head in the Northern and Western region being about a third of the GDP per head in the Eastern and Midland region and in the Southern region.

Skill shortages persist in, among other fields, construction, IT, life sciences, and transport, exacerbating the difficulties faced by Irish businesses in 2020. A survey conducted in October 2020 by SOLAS, the Irish state agency for further education and training, shows that over 53% of the surveyed science, engineering and technology companies had difficulty hiring experts with appropriate skills. The figure was 27% for companies in the construction sector.

Lending to businesses has fallen since the onset of the COVID-19 crisis, which may reflect both a fall in investment and tightened access to finance. According to the Central Bank of Ireland, total lending to enterprises fell on average by 4.6% annually in the second half of 2020. SMEs have been particularly affected, as new lending to these businesses fell significantly during the year (-17.6% annually in the second half of 2020), with the most affected sectors being the ones also most affected by the pandemic, notably real estate, transport, wholesale, retail and hospitality. Part of this may be due to falling investment, mainly in construction. During 2020, domestic modified investment was 8.5% below the 2019 level. In addition, the bank lending survey from the Central Bank of Ireland suggests credit standards also tightened moderately in 2020, reflecting the broader economic environment and firm-specific conditions.

Some weaknesses also persist in the financing of research and development (R&D). Until 2018, Ireland had been gradually increasing its investment in R&D to 1.14% of GDP (or 1.87% of GNI*), although this had not been sufficient to raise it to the level that would be expected in an economy at Ireland's overall stage of development. In 2019, despite a continued increase in the level of public expenditure, a significant fall in business expenditure on R&D led Ireland's overall research intensity - R&D as a percentage of GDP - to fall to 0.78% (or 1.30% of GNI*), which is well below the 2019 EU average of 2.20% and an EU objective of 3%. In addition, a significant share of public support for R&D in firms continues to come through the research and development tax credit, rather than direct support to SMEs.

Social and territorial cohesion

Despite the strong poverty-reducing effect of social transfers, social challenges remain due to the limited availability of services, especially in disadvantaged communities, and shortages in affordable and social housing. While the risk of poverty or social exclusion was close to the EU average in 2019, child poverty remained consistently above the EU average (23.2% in Ireland vs 22.2% in the EU27), and severe material deprivation increased for the first time since 2012. The active inclusion of people furthest away from the labour market continues to be hampered by the limited availability of integrated services, including targeted and personal social and active labour market services. Homelessness and housing availability, especially affordable and social housing, remain structural challenges in Ireland, having clear detrimental impacts on health equity and social cohesion.

Both the risk of poverty and levels of disposable income vary between the Irish regions. The risk of poverty is below the national average in the Eastern and Midlands (10.8%) and at the national average in the Southern region (13.4%), while it is significantly above the national average in the Northern and Western region (18.9%). Disposable income follows the same spatial pattern and is particularly low in predominantly rural remote areas at the border with Northern Ireland and in the centre of the country.

The COVID-19 crisis is adding to the already existing challenges in the labour market, including the high prevalence of quasi-jobless households, youth unemployment, and the increasing gap in gender employment. In 2019, the proportion of households with very low work intensity remained the second highest in the EU (13.6% in Ireland vs 8.3% in the EU27), while youth unemployment increased from 12.5% in 2019 to 16.8% in the fourth quarter of 2020 (vs the average of 7.2% in all age groups). The gender employment gap increased for the second consecutive year in 2019 (to 12.4 percentage points), further diverging from the EU average (11.7 percentage points in 2019). This situation might have further deteriorated due to the pandemic. The employment gap between people with and without disabilities remained one of the highest in the EU (40.3 percentage points).

Health, and economic, social and institutional resilience

Ireland faces several challenges in its healthcare system, including cost-effectiveness, recruitment and retention of healthcare professionals, and certain deficiencies in public procurement. Ireland remains the only country in Western Europe without universal access to primary care. Challenges regarding workforce planning have led to a lack of control over the hiring process of health workers, which in turn has led to repeated budget overspends. The Irish healthcare system is relatively expensive compared to the rest of the EU, and the high proportion of non-government health spending contributes to driving up costs and inequity. In addition, Ireland's long-term care system is over-reliant on institutional care, while home-care, which is a key part of long-term care services in many other EU Member States and is more efficient and appropriate for addressing low to middle levels of dependency, has been historically underprovided. Another challenge Ireland faces is the recruitment and retention of healthcare workers to meet the ever-growing demand for healthcare, despite comparatively high salaries. This is due to several factors, including long working hours and limited access to training and career development opportunities. Ireland also witnessed significant medical emigration. Lastly, the Irish Comptroller and Auditor General concluded that there is systematic non-compliance with procurement requirements in the health service, with goods and services being procured in a non-competitive manner.

The quality and efficiency of the justice system could be improved. Businesses face high legal costs and legal processes can be cumbersome. According to the 2021 EU justice scoreboard, the number of judges per inhabitant remains the lowest in the EU, which could affect the efficiency of the Irish justice system. In the justice plan 2021, the government has committed to reviewing the numbers and types of judges needed to ensure the efficient administration of justice over the next five years. The length of proceedings remains a challenge and the Parliament is currently discussing on a Criminal Procedure draft, which could provide for a faster and more efficient court process for certain offences. Regarding digitalisation of the justice system, Ireland scores below the EU average, in particular with regard to the e-filing of incoming non-criminal cases, the case management system and the production of statistical data. Measures are being taken to address those challenges.

Regarding taxation, several issues remain. First, the Exchequer has become increasingly reliant on revenues from few multinational firms. The volatile and potentially transitory nature of these revenues, along with a narrow tax base tend to reduce revenue stability and the effectiveness of automatic stabilisers. Second, the limited application of withholding taxes on royalty and dividend payments going out of Ireland may lead to payments being taxed at a very low rate or escaping tax altogether in their destination jurisdiction.

While the Irish anti-money laundering framework is strong in many aspects, challenges remain. Ireland faces risks due to its internationally oriented economy and complex legal structures. It has just adopted a Bill transposing the most recent EU standards as regards anti-money laundering. Ireland completed its updated assessment of legal entities and arrangements in 2020, which recognised money laundering threats and vulnerabilities of companies as significant to very significant. Transparency of beneficial ownership is a key tool to avoid misuse of such legal entities and arrangements. For this reason, it is important that the beneficial ownership register contains sufficient, accurate and up to date information. Risk-based supervision of professionals servicing companies and trusts is yet to be fully implemented – supervisors of these professionals are often self-regulatory bodies, and there is little evidence of them providing recommendations, guidance or activity reports. A key supervisor, the Anti-Money Laundering Compliance Unit, lacks the power to issue administrative penalties for non-compliance.

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

Progress can still be made in addressing the digital divide, digitalising schools and in digital learning. Ireland has implemented the digital strategy for schools (2015-2020) and continues to implement the digital learning framework and the supporting investment. Nevertheless, the 2019 EU survey on ICT in schools showed that only 52% of primary school pupils could access their virtual learning environment from outside the school premises, compared to the EU average of 81%, while only 33% of primary school students attended digitally well-equipped and connected schools (vs the EU average of 35%), indicating further investment needs, in particular for connectivity and support for the disadvantaged students. According to the 2018 Programme for International Student Assessment (PISA) from the OECD secondary school students in Ireland are less likely than students in other countries to use digital devices for classwork in school or at home. As the COVID-19 crisis risks increasing educational inequalities it is essential that all schools and especially disadvantaged students have better access to digital infrastructure.

2.3. Challenges related to the green and digital transition

An overarching objective of the Recovery and Resilience Facility is to support the green and digital transitions, for which Ireland still faces several challenges. Ireland's ambition to 'future proof its economy and society' includes the goal of achieving climate neutrality by 2050, as well as objectives regarding online and digital services, remote working, and broader use of automation – including through education and skills. The climate action plan and national energy and climate plan (NECP) represent a breakthrough compared to previous policy, and the Programme for Government commits Ireland to increase further its greenhouse gas emissions reduction targets. This section sets out where Ireland stands in achieving targets related to the green and digital transitions.

2.3.1. 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 should 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, while ensuring that nobody is left behind.

Greenhouse gas emissions

The climate action plan raises the level of ambition in tackling climate challenges. Achieving the 2030 climate and energy targets will nevertheless be a major challenge. Recent trends in emissions, particularly for transport and buildings, and the sectoral composition of these emissions point to insufficient mitigation efforts so far and highlight the scale of the efforts ahead. Prior to the COVID-19 pandemic, Ireland projected that in 2020 emissions in sectors not covered by the EU emissions trading system (EU ETS) would have fallen by 2-4% compared to 2005 levels – well short of the -20% target. Similarly, Ireland is expected to have fallen short of the 2020 energy efficiency and renewable energy targets by several percentage points, and progress remains particularly slow in the heating and cooling and transport sectors[11]. This means that the emissions trajectory between 2021 and 2030 will be steep and requires mitigation efforts to be significantly intensified.

The climate action plan is a breakthrough after previously subdued policy action. The climate action plan represents a transformative agenda for the entire economy and some important measures have been implemented already, including (i) the carbon tax increases under Budget 2020 and Budget 2021 with further annual increases planned to reach a level of EUR 100 per tonne of CO_2 by 2030, and (ii) a new renewable electricity support scheme to help achieve the 70% renewable electricity target by 2030. The success of the climate action plan will largely depend on its consistent and effective implementation, as well as on policies and measures being constantly reviewed and updated. The NECP mitigation target is in line with current EU legislation at around -30% in sectors not covered by the EU ETS[12]. While Ireland's contribution to the EU's renewable energy target – 34.1% of gross final energy consumption by 2030 – is ambitious, the level of ambition for energy efficiency remains low.

Ireland recently announced it would step up its mitigation ambition by 2030. The Programme for Government commits Ireland to reducing overall greenhouse gas emissions by

[11] Tsemekidi-Tzeiranaki, S., Paci, D., Cuniberti, B., Economidou, M. and Bertoldi, P., Analysis of the Annual Reports 2020 under the Energy Efficiency Directive, EUR 30517 EN, Publications Office of the European Union, Luxembourg, 2020, ISBN 978-92-76-27416-2, doi:10.2760/180952, JRC122742.

[12] Economidou, M., Ringel, M., Valentova, M., Zancanella, P., Tsemekidi-Tzeiranaki, S., Zangheri, P., Paci, D., Serrenho, T., Palermo, V., Bertoldi, P., 2020, National Energy and Climate Plans for 2021-2030 under the EU Energy Union: Assessment of the Energy Efficiency Dimension, EUR 30487 EN, Publications Office of the European Union, Luxembourg, 2020, 978-92-76-27013-3, doi:10.2760/678371, JRC122862

7% per year on average over 2021-2030, which is a significant improvement compared to the ambition set out under the NECP. To fulfil such a level of ambition over the rest of the decade, additional policies and measures will need to be devised rapidly under the climate action plan and a revised NECP. In the Finance Act of 2020, Ireland set out that the carbon tax would be increased to EUR 100 per tonne of CO_2 by 2030, with an increase of EUR 7.50 each year until 2029 and of EUR 6.50 in 2030.

Implementing policies and measures will be critical to Ireland achieving the 2030 Climate targets. The climate action plan and NECP will steer public, business and household investment towards low or zero emission projects, but the impact on actual investment decisions will only materialise fully if policies and measures continue to be implemented over the coming years. Achieving the planned reduction in emissions – in particular in agriculture, buildings and transport – will require further complementary and specific measures to go from broader objectives and ambitions to implementation. Ireland will also need to specify its strategy for tackling greenhouse gas emissions from agriculture, mainly biogenic methane.

Energy efficiency

Energy efficiency policies remain pertinent given energy consumption increased in the years before the onset of the COVID crisis. While the national energy and climate plan presented a comprehensive set of measures, Ireland's contribution to the EU target still remains low in ambition.

The potential for energy efficiency is particularly high. First, the long-term renovation strategy adopted in 2020 is expected to play an important role in addressing investment needs and delivering the various economic and health benefits of building retrofits. Second, the 30% CO_2 emissions reduction and 50% energy efficiency targets for the public sector are also expected to play an important driving role. Lastly, whilst the largest investment in the recovery and resilience plan is a rail project, other national measures, including a target of 926 000 electric vehicles on the road by 2030, or aiming at increasing investments in public transport and modal shift, will contribute to tap into the energy saving potential of the transport sector.

Energy efficiency will also be crucial in supporting the achievement of other objectives. This is the case in particular as regards security of supply and renewables, but also in the context of the expected rapid development of data centres.

Share of renewables in energy mix

Ireland has made progress in transforming its electricity system. It has accelerated its phase-out of coal and peat and reached a 43% renewables share in its electricity consumption in 2020. However, to reach the 70% renewable electricity target by 2030 the deployment of renewables, in particular onshore and offshore wind, needs to be considerably speeded up. The upgrading of network infrastructure and storage, as well as interconnectors, such as the Celtic Interconnector between Ireland and France, will also be key in facilitating the uptake of renewable generation and reducing energy prices.

Investments needs

Ireland has not yet comprehensively evaluated private and public investment needs related to the 2030 targets and the transition towards a climate-neutral economy. Such an assessment is critical in order to inform the design of policies and measures to achieve long-term climate mitigation objectives. At the same time, Ireland's NECP and climate action plan provide a strong basis for the design of climate and energy-related aspects of its plan, including in energy efficiency, energy infrastructure and renewables, sustainable transport and climate governance. Regarding climate governance, enacting the Climate Action and Low-Carbon Development (Amendment) Bill 2021 is a major priority. This new legislation is expected to define the framework under which national and sectoral 5-yearly carbon budgets will be set, as well as define targets against which progress will be monitored.

Sustainable transport

Making Ireland's transportation sustainable and meeting emissions reduction targets will be challenging, although some progress has been made in facilitating investments. On the back of the economic recovery since 2013, transport emissions gradually increased from 10.8 million tonnes of CO_2 equivalent in 2012 to 12.2 million tonnes in 2019. Transport was the second largest contributor among non-ETS sectors to greenhouse gas emissions at 20.1% of the total in 2018, only behind agriculture (32.7%), with private cars being the largest source of emissions within the sector. New technologies, infrastructure investment and roll-out, as well as fiscal measures, may help Ireland meet its emissions reduction targets. Specific actions will also need to be taken to reduce diesel emissions from transport, which is responsible for excessive nitrogen dioxide emissions in breach of the Air Quality Directive.

Biodiversity and zero pollution

Ireland faces significant challenges in its transition to a circular economy. Waste generation in Ireland is 20% higher than the EU average, and progress made on increasing recycling rates has slowed over recent years. The circular use of materials in Ireland was only 1.6% in 2019, well below the EU average of 11.9%. More incentives and investments are needed to equip Ireland with a more ambitious waste and circular economy strategy, while avoiding the pitfalls of creating excessive incineration capacity.

Challenges also remain as regards protecting and restoring healthy ecosystems. While Ireland has largely completed its terrestrial Natura 2000 designations, there is still work to be carried out for marine sites where Ireland has one of the smallest protected area networks (2% compared to an EU average of 9%). Progress on this will be particularly important given Ireland's ambitions to expand offshore renewables, in order to ensure that such expansion is underpinned with a clear understanding of potential impacts on marine habitats. Key pressures such as those from agriculture also present a challenge. Within the designated Natura 2000 network of sites, only 15% of habitats are in favourable condition, with over half showing ongoing decline. The Irish environmental strategy does not seem to address sufficiently the recent rise in ammonia emissions to air, as well as the increased pressure on water quality and biodiversity from the agricultural sector. Furthermore, the climate action plan and NECP do not provide enough details on how Ireland intends to increase its carbon sinks, in a manner that would also deliver on its biodiversity protection targets.

Less than 50% of waste waters in Ireland are treated in compliance with EU law, although some progress has been made in facilitating investments in this area. The most significant pressure on surface water quality in Ireland stems from excessive nutrients from both untreated waste waters and agriculture. Significant upgrades in infrastructure are needed as is a more robust approach to controlling emissions to water from agriculture. Table 3 provides an overview of Ireland'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: Objectives, targets and contributions under Regulation (EU) 2018/1999

	National targets and contributions	Latest available data	2020	2030	Assessment of 2030 ambition level
	Binding target for greenhouse gas emissions compared to 2005 under the Effort Sharing Regulation (%)	-4%	-20%	-30%	As in the ESR
	National target/contribution for renewable energy: Share of energy from renewable sources in gross final consumption of energy (%)	12% (2019)	16%	34.1%	Sufficiently ambitious (31% is the result of the RES formula)
	National contribution for energy efficiency:				
	Primary energy consumption (Mtoe)	14.7	13.9	13.7	Low ambition
	Final energy consumption (Mtoe)	12.4	11.7	11.2	Low ambition
	Level of electricity interconnectivity (%)	7.4%	N.A.	N.A	N.A.

Source: Assessment of the final national energy and climate plan of Ireland, SWD (2020) 906 final

2.3.2. 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 sectors (including public administrations, businesses and healthcare 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 private and public actors, all while ensuring inclusiveness.

Ireland performs above the EU average in the Digital Economy and Society Index (DESI). It ranked sixth in the EU in DESI 2020.

Ireland is doing particularly well on integrating digital technologies in businesses, ranking first in the EU for the integration of digital technology and maintaining a leading position in the use of e-commerce by SMEs in DESI 2020. More specifically, according to Eurostat, 32% of SMEs sold online in 2020 and 18% sold cross-border in 2019, well above the EU averages of 17% and 8% respectively. On the other hand, Irish SMEs are closer to or even below the EU average when it comes to adopting other e-business technologies (such as supply chain management, enterprise resource planning, customer relationship management, radio frequency identification). According to the European Investment Bank, the construction and manufacturing sectors, which together account for almost a third of SMEs in Ireland, are lagging behind other sectors in adopting digital technologies.

The use of digital technologies in the public sector has also been above the EU average. In DESI 2020, Ireland ranked ninth in the digital public services. In 2020, Ireland performed very well in open data and provision of digital public services for citizens and businesses. Digitalisation efforts could further improve the efficiency of, and simplify formalities in, the customs and judicial systems. Ireland is also above EU average in the 2020 eGovernment Benchmark report. Ireland scores particularly well on user-centricity of digital public services. However, significant improvements can still be made on cross-border electronic identification, both for citizens and for businesses.

While Ireland has faced infrastructural challenges for the digital transition in the past, there have been significant connectivity improvements in 2020. Notably, fixed very-high capacity network coverage rocketed from 35% of households in 2019 to 83% in 2020 and is now well above the EU average of 59%[13]. Ireland is also continuing to take measures to further improve connectivity[14]. Nevertheless, the share of households with fixed broadband connection is not fully even across regions (88% in urban areas, against 82% in intermediate areas[15] and 69% in rural areas in 2020), which indicates an area for improvement. The long delay in transposing Article 8 of the Broadband Cost Reduction Directive 2014/61/EU could hinder further deployment of high-speed electronic communications networks to reach all end-users. Regarding the pioneer 5G spectrum bands awards, Ireland has already assigned the 3.6 GHz

[13] Broadband coverage in Europe studies for the European Commission by IHS Markit, Omdia and Point Topic.
[14] By way of illustration, the implementation of a publicly funded scheme under the Irish National Broadband Plan to ensure delivery of high-speed broadband services is ongoing.
[15] Intermediate urbanised area with between 100 and 499 inhabitants/km^2.

band in 2017, the auction for the 700 MHz band commenced in April 2021 and for the 26 GHz band Ireland had found no evidence of market demand during a public consultation However, the monitoring of market demand is ongoing. In addition, as Ireland is only connected to other Member States by way of non-EU countries (the United Kingdom and the United States), multiple plans for direct submarine cable systems are particularly relevant[16].

In DESI 2020, Ireland continued to rank 11th in human capital. Further efforts to improve digital skills are important, as a relatively low percentage of the population has at least basic digital skills (according to Eurostat, 53% in 2019, below the EU average of 56%). This may hinder people without basic digital skills from actively participating in a society increasingly reliant on digital tools and could hold back improvements in the productivity and competitiveness of Irish companies. Although Ireland aims to address these shortages in its 'Future Jobs Ireland 2019' framework, action remains limited. While people's digital skills continue to be improved through dedicated programmes, such as the explore and skills to advance programmes and the digital skills for citizens grant scheme, there is no evidence yet that these programmes are significantly addressing the digital divide.

Ireland appears to be on course to achieving the objectives of its 'Innovation 2020' strategy for R&D, science and technology. It is currently developing a successor strategy (2021-2027). Progress made so far includes the creation and maintenance of research centres by Science Foundation Ireland. Ireland has also established a Disruptive Technologies Innovation Fund, to encourage industry – especially SMEs – and the research sector to collaborate on developing and deploying disruptive technologies and applications on a commercial basis. Ireland's other initiatives to forge a close relationship between companies and research institutes and to help SMEs profit from such relationships are 'technology centres', 'technology gateways' and 'knowledge transfer Ireland'.

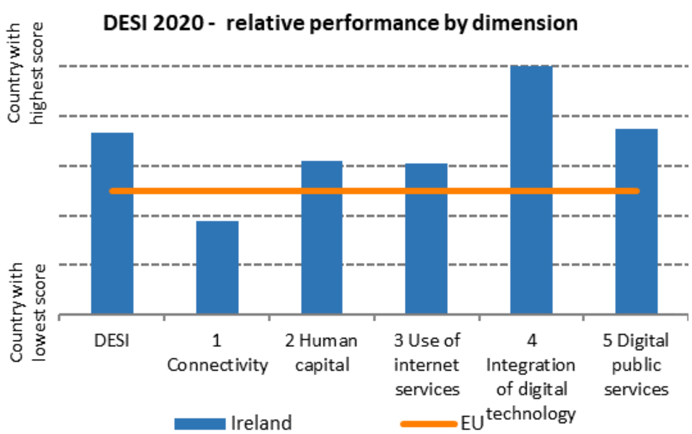
The expansion of the digital sector should not come at the expense of rising greenhouse gas emissions. The activities of large IT multinationals, especially as they involve data centres, generate a high level of demand for electricity. Therefore, ensuring that further expansion in the sector does not lead to increased CO_2 emissions and compromise Ireland's climate objectives and commitments will require not only that the share of renewables in electricity production reaches the projected targets, but that this also happens in the context of rising electricity demand from the IT sector. Ireland is making progress in that regard.

Efforts are underway to improve the development and deployment of advanced technologies in Ireland, including the adoption of an Artificial Intelligence (AI) strategy.

[16] Such as a project to connect to Portugal for which financing is not yet completed and a project to connect to Norway and Denmark that does not yet have a licence.

Only 35% of businesses in Ireland use at least one AI technology (below the EU average of 42%), and regarding the uptake of two or more AI technologies Ireland is among the bottom three in the EU (14% of businesses, below the EU average of 25%). To accelerate the development and deployment of advanced technologies, CeADAR (Ireland's national centre for applied data analytics and AI) has been approved for public funding, matched with a contribution from industry and competitive sources. Moreover, the Commission selected CeADAR to form a network for cross-border cooperation on AI, to help SMEs benefit from it. Ireland is also a member of the European High-Performance Computing (HPC) Joint Undertaking. To make full use of its supercomputing/HPC potential, Ireland needs to increase its supercomputing capabilities, step up HPC scientific and industrial application, foster SME uptake of HPC and strengthen the national HPC competence centre with advanced education and training activities. Finally, Ireland advocates that all new government systems exploit the opportunities of cloud deployment and has announced a review of all existing systems for cloud capability.

Figure 1: Digital Economy and Society Index 2020 – relative performance by dimension



Note: EU aggregate corresponds to the EU-28, based on the 2020 DESI report.

Box 1: Progress towards the Sustainable Development Goals

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

The objectives of the Sustainable Development Goals (SDGs) have been 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 Ireland'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 RRF could further accelerate the progress on the SDGs.

Green Transition

Ireland can still improve its performance in addressing SDGs related to the green transition. The country has mixed results on the use of circular material (SDG11 – 'sustainable cities and communities' and SDG12 – 'responsible consumption and production'): waste generation in Ireland is higher than the EU average, while at the same time the recycling rate has stagnated over the last few years and remains below EU average. On SDG7 – 'affordable and clean energy', Ireland is almost at EU average: while it has performed well on 'energy affordability', its share of renewable energy in gross final energy consumption was 12.0% in 2019, below the EU average (19.7%), making it dependent on imported fossil fuels. Ireland also lags behind the EU average in SDG13 – 'climate action' as the recent trend in emissions is not in line with climate objectives. However, progress is being made on this SDG, as the mitigation ambition for 2030 is being stepped up significantly and associated policies and measures are being prepared, alongside a new and significantly reinforced climate governance framework.

Fairness

In the years preceding the COVID-19 crisis, Ireland performed relatively well in terms of fairness. For instance, the ratio of total income received by the top quintile to that of the bottom quintile of households decreased from 4.8 in 2012 to 4.0 in 2019 – a relatively low value when compared to an EU-27 average of 5.0 in 2019. Ireland made significant progress in addressing SDG 1 – 'no poverty' and SDG 8 – 'decent work and economic growth'. In the five years to 2018, Ireland surpassed the EU average level in almost all dimensions related to these SDGs. However, for 2019, there were some signs of a deteriorating performance. For the first time since 2012, the shares of people who are severely materially deprived and people living in very low work intensity households increased. The share of people living in overcrowded conditions increased for the first time since 2015. Within SDG 8 – 'decent work and economic growth', Ireland continued to perform well, except for the share of people who are inactive due to caring responsibilities, which remained well above the EU average in 2019. Furthermore, Ireland scored moderately well within SDG 5 – 'gender equality'. However, the gender employment gap continued to increase and remained above the EU average in 2019, having narrowed considerably in the period leading to 2012. Ireland performed consistently above the EU average in SDG 4 – 'quality education'.

Digital transition and productivity

As mentioned above, Ireland performs well overall in SDG 8 – 'decent work and economic growth' as well as in SDG 9 – 'industry, innovation, and infrastructure'. Ireland performs very well regarding R&D related budget allocations for the ICT sector as a share of total R&D related budget allocations: in 2018 Ireland had the second highest share in the EU (15%). By further intensifying policy efforts, Ireland could make further progress on the SDGs related to the digital transition and productivity as several challenges remain. Gross domestic expenditure on R&D was only 0.8% of GDP in 2019 (or 1.3% of GNI*), compared to the EU-27 average of 2.2% and an EU objective of 3%. Moreover, although gross domestic expenditure on R&D is growing in absolute terms, Ireland has not achieved the target of 2% of GDP by 2020 and is now aiming to reach that target only in 2025. Regarding the business R&D intensity rate in ICT, Ireland scored below the EU-28 average in 2017.

Macroeconomic stability

While Ireland is performing well in SDG 8 – 'decent work and economic growth', the pandemic heightened risks of a reversal in the gains of recent years. The share of young people neither in employment nor in education has been steadily declining from 22.3% in 2011 to 11.2% in 2019, but due to the pandemic this share increased to 13.4% in 2020.

3. Objectives, structure and governance of the plan

3.1. Overall strategy of the plan

The Irish plan aims to address climate, biodiversity, and digitalisation challenges, in the context of transitioning to a more sustainable society and economy as Ireland recovers from the COVID-19 pandemic. The plan includes 9 reforms and 16 investments, covering a range of challenges identified in the context of the European Semester and the country-specific recommendations addressed to Ireland, while focussing predominantly on addressing the twin – digital and green – transition, as well as supporting the economic and social recovery and job creation. The plan's strategy is structured around three components.

The first component focusses on *advancing the green transition*. The component includes two reforms and seven investments, for a total financial envelope of EUR 518 million. The component has an overall climate contribution of 37%, and a digital contribution of approximately 2%. The component contributes to addressing Ireland's climate and biodiversity challenges and aims to accelerate the decarbonisation of the Irish economy. It includes the introduction of key environmental policies that are expected to strengthen the overall green governance framework, as well as commitments to reduce greenhouse gas emissions by 51% in 2030 compared to 2018 levels. Measures in the component aim to direct relevant funding towards decarbonising projects, such as retrofitting of residential buildings and reducing emissions in the enterprise sector, and towards green data systems that have the potential to support businesses in accelerating their efforts to reduce emissions. The component also addresses sustainable transport through an investment that aims to prepare for the future electrification of railways in Cork and addresses transport congestion. A number of measures contribute to biodiversity and enhancing ecosystem resilience and rehabilitation while increasing the carbon sink. Measures to encourage research and innovation also form part of this component.

The second component centres on *accelerating and expanding digital reforms and transformation.* The component includes one reform and six investments, for a total financial envelope of EUR 291 million. The component has an overall climate contribution of almost 2%, and a digital contribution of 29%. The component addresses the challenges of the digital transformation by supporting the digitalisation of public services and companies, and improving digital skills. The objective of the component is to accelerate and expand the country's digital transformation by supporting the digitalisation of enterprises, addressing the risk of the digital divide, including in the education sector, enhancing digital skills, and supporting the development of digital infrastructure and the delivery of digital public services.

The third component aims to support *social and economic recovery and job creation*. The component includes six reforms and three investments, for a total financial envelope of EUR 181 million. The component has an overall climate contribution of 3%. The measures in this component aim to: (i) keep those who are unemployed close to the labour market; (ii) equip the Irish workforce with the necessary future-oriented skills that are required to boost the innovation and productivity of the SME sector and skills, including in support of climate action; and (iii) contribute to strengthening the overall social and economic policy framework, to help maximise investments in activation support and upskilling. The component addresses a range of challenges: (i) the need to foster activation strategies; (ii) the need to address skill shortages and prepare the workforce for the green and digital transitions; (iii) the need to lower regulatory barriers to entrepreneurship; (iv) the need to strengthen the anti-money laundering framework; (v) the need to address features of the tax system that facilitate aggressive tax planning; (vi) the need to implement pension reform plans; (vii) the need to address shortages in social housing supply and improve housing affordability; and (viii) the need to improve the accessibility, resilience, and cost-effectiveness of the healthcare system.

Table 4: Components and associated costs

Component	Costs (EUR million)
1 Advancing the green transition	518
2 Accelerating and expanding digital reforms and transformation	291
3 Social and economic recovery and job creation	181

3.2. Implementation aspects of the plan

Consistency with other programmes

The plan is aligned with Ireland's national policy framework and is consistent as well as complementary with other national initiatives and priorities. The priorities and policy objectives of Ireland's national development plan and economic recovery plan are reflected in the recovery and resilience plan, as are European priorities such as ensuring a just transition, advancing the twin transition and ensuring a high level of social and territorial cohesion. The plan increases the level of ambition associated with the national energy and climate plan. Ireland is in the process of updating its climate action policies and plans to reflect the new more ambitious climate targets set out in the recovery and resilience plan.

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

The Irish recovery and resilience plan is consistent with the challenges and priorities identified in the most recent Draft Council Recommendation on economic policy in the euro area[17]. First, the plan contains several measures that are expected to support the recovery. In this respect, the work placement experience programme is expected to help combat the labour-market impact of the crisis, while the eHealth and health reform measures have the potential to support the accessibility and cost-effectiveness of the healthcare system. Second, measures in the plan also have the potential to further improve convergence, resilience, and sustainable and inclusive growth. The measures in components 1 and 2 of the plan are expected to increase public investment and foster private investment to support a recovery consistent with the green and digital transitions, while also aiming to support a shift towards carbon pricing and environmental taxation. The measures under component 3 have the potential to strengthen inclusion and support job transitions, as well as to make further progress in combatting aggressive tax planning. Third, the plan is expected to strengthen national institutional frameworks, by among others digitalising public administration and aiming to lower barriers to entrepreneurship with an SME test. Finally, the plan has the potential to strengthen the European

[17] 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

regulatory and supervisory framework by reinforcing the supervision and enforcement capacities of Ireland's anti-money laundering framework.

Coordination and implementation framework

The Implementing Body for the plan will be located in the Department of Public Expenditure and Reform. This body is expected to be responsible for the strategic monitoring and management of the plan. It is expected to report to the Minister for Public Expenditure and Reform, who should inform the government cabinet every six months on the implementation of the committed milestones and targets, relating both to investments and reforms, along with Ireland's draw down of funds. The Implementing Body should act as a single point of contact for the Commission on a day-to-day basis. It is expected to: (i) provide all necessary reports and requests for disbursements; (ii) ensure coordination with other relevant authorities; (iii) report on progress on milestones and targets; (iv) oversee implementation of control measures; (v) provide technical and systems support; and (vi) communicate at national level to promote and publicise the Union's funding. It is also expected to collect information on EU funding sources from the RRF information system, as shared by Departments and other bodies responsible for individual projects. This information is expected to be communicated to other fund managers in order to allow for complementarity to be assessed and to mitigate risks of double funding.

The Implementing Body is expected to work in close cooperation with the newly established Delivery Committee. The Delivery Committee should meet on at least a quarterly basis, maintain oversight over the implementation of the plan, and address issues as they arise. The Delivery Committee is to be chaired by the Department of Public Expenditure and Reform, and deputy co-chaired by the Department of Taoiseach and Department of Finance, at senior official level. These departments were also leading the preparatory technical discussions with the European Commission. While the Implementing Body and Delivery Committee are expected to monitor the implementation of the plan and be responsible for exchanges with the EU institutions, responsibility for implementing the individual measures lies with the relevant Departments and bodies (as per the Table ***5*** below).

Table 5: Departmental responsibility per measure

Responsible Department/other body	**Investments**	**Reforms**
Department of Communications, Climate Action and Environment	1.1 Derisking a low cost residential retrofit loan scheme 1.6. Enhanced rehabilitation of peatlands	1.8. Climate Action and Low Carbon Development (amendment) Bill
Department of Enterprise, Trade and Employment	1.2 Accelerate decarbonisation of the enterprise sector 2.2. Programme to drive digital transformation of enterprise in Ireland	3.4. Reducing regulatory barriers to entrepreneurship.
Department of Transport	1.4. Enable future electrification through targeted investment in Cork commuter rail	
Department of Social Protection	3.1. Work placement experience programme	
Department of Finance		1.9. Carbon tax 3.6. Aggressive tax planning 3.7. Pensions
Department of Health	2.6. Suite of eHealth projects	3.9 Health reforms
Department of Further, Higher Education, Research, Innovation and Skills	1.5. National grand challenges programme 3.2. SOLAS recovery skills response programme 3.3. Technological universities transformation fund	2.7. Address digital divide and enhancing digital skills (with D/Education and Skills)
Department of Housing, Local Government and Heritage	1.7. River basin management plan - enhanced ambition programme	3.8. Increase provision of social and affordable housing
Department of Education and Skills	2.3. Programme to provide digital infrastructure and funding to schools	2.7. Address digital divide/ digital skills (with D/ Further, Higher Education, Research, Innovation and Skills)
Department of Justice		3.5. Anti-money laundering
Central Statistics Office	2.4. Provision of an online response option for the census of population	
Office of the Government Chief Information Officer (OGCIO)	2.5. Using 5G technologies to drive a greener more innovative Ireland	

Responsible Department/other body	Investments	Reforms
	2.1 Development of a shared government data centre	
Office of Public Works (OPW)	1.3 Public sector retrofit pathfinder project	

Gender equality and equal opportunities for all

With regard to gender equality and equal opportunities for all, the plan describes challenges regarding gender equality as well as challenges faced by persons with disabilities, Roma and Travellers, LGBTIQ+[18] people and people with a minority racial background in Ireland. The section on gender equality and equal opportunities for all briefly explains which reforms and investments contribute to overcoming the challenges identified, while the detailed descriptions in part 2 of the plan also include information on whether and how equality considerations were taken into account in each measure. Several measures are expected to contribute to addressing challenges related to gender equality and equal opportunities for all. The plan refers notably to the work placement experience programme and the SOLAS recovery skills response programme aiming to provide work experience, reskilling and upskilling opportunities to workers adversely impacted by the COVID-19 crisis – among whom women in vulnerable situations might be overrepresented. With regard to monitoring, the plan refers to overall employment levels disaggregated by gender and age, as well as to the gender employment gap as key metrics, which are due to be used at the national level to measure Ireland's recovery efforts, including the contribution of the plan. The plan also refers to the Public Service Equality and Human Rights Duty and to the cross-governmental equality strategies, which aim to address the particular needs of specific groups such as Travellers and Roma, people of African or Asian descent, LGBTIQ+, migrants and persons with disabilities. It points to the disproportionate impact of the COVID-19 crisis on these groups, including in relation to housing conditions, health status and the loss of jobs in sectors highly impacted by the pandemic.

Stakeholder consultations

The consultation process was relatively brief. In February 2021 the Department of the Taoiseach opened a public consultation website setting out process and parameters for the recovery and resilience plan, and requested stakeholder input on two questions:

[18] Lesbian, gay, bisexual, transgender and intersex people

- ‘What areas should Ireland prioritise for investments and reforms for inclusion in the plan?’
- ‘What Country Specific Recommendations received by Ireland in 2019 and 2020 are considered the most relevant for reflection upon in Ireland’s National Recovery and Resilience Plan?’

Stakeholders could provide their contribution during a 20-day period, and the government received over 110 written submissions, including from regional representatives, political parties, business associations, trade unions, youth organisations, environmental organisations, academia, other civil society stakeholders, and members of the public. The submissions were summarised and shared with relevant government Departments as part of the plan development.

A summary of the public consultation process and how this consultation has been reflected in the plan is included in the plan itself.

Security self-assessment

The plan does not include a security self-assessment for investments in digital capacities and connectivity. The connectivity measures included in the plan do not involve the deployment of public 5G networks.

Cross-border projects

Ireland included one multi-country project in its plan to support the digitalisation of companies in Ireland, particularly of SMEs. To tackle the unbalanced digitalisation among companies (see Section 2.3), the plan includes the programme to drive digital transformation of companies, particularly SMEs, across all sectors in Ireland. Digital transition of the Irish enterprise through this programme is expected to be further supported through Ireland’s participation in the European digital innovation hubs (EDIHs) network, in the context of a multi-country project. The establishment of four EDIHs and the creation of clusters anchored by the EDIHs are expected to be an important facilitator of cross-border collaboration which is also expected to strengthen value chains.

Communication

The plan contains a short description of a communication strategy. A dedicated website is expected to ensure delivery of communications on the plan. The website www.gov.ie is a central portal for all government services, communications and information in Ireland, and the recovery and resilience plan webpage is expected to act as the main repository of information. A detailed plan for communication actions at national and measure levels should be developed, to raise public awareness, promote the benefits of EU funding and give visibility to the reforms and investments. The Implementing Body is expected to be responsible for all communication actions at programme level. There is no further specification of these actions. The plan indicates that an appropriate funding statement will be a condition of funding for beneficiaries, which is in line with the requirements of Article 34(2) of the RRF Regulation.

It is essential that the described communication plan be fully developed and implemented. Coordination between EU and national authorities, as mentioned in the recovery and resilience plan, should be pursued to maximise the impact and effectiveness of communications.

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[19]. 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 Ireland in the plan cannot be deemed a State aid notification. In as far as Ireland considers that a specific measure contained in the plan entails de minimis aid or aid exempted from the notification requirement, it is the responsibility of Ireland to ensure full compliance with the applicable rules.

4. SUMMARY OF THE ASSESSMENT OF THE PLAN

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

The Irish plan explains in detail how it addresses the six pillars of Article 3 of the RRF Regulation, namely: (i) green transition, (ii) digital transformation, (iii) smart, sustainable and inclusive growth, (iv) social and territorial cohesion, (v) health and economic, social and institutional resilience, and (vi) policies for the next generation. Table 6 below summarises the coverage of each of the components in the Irish plan to one or more of the six pillars.

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

Table 6: Coverage of the six pillars of the RRF by the Irish plan components

	Green transition	Digital transformation	Smart, sustainable and inclusive growth	Social and territorial cohesion	Health and economic, social and institutional resilience	Policies for the next generation
1 Advancing the green transition	●	○	●	●	●	
2 Accelerating and expanding digital reforms and transformation	○	●	●	●	●	●
3 Social and economic recovery and job creation	○		●	●	●	●

Key: "●" investments and reforms of the component significantly contribute to the pillar; "○" the component partially contributes to the pillar

Overall, the plan is adequately balanced and focuses on Ireland's main challenges. The plan proposes an appropriate overall balance of reforms and investments addressing the six pillars (see Table 6), reflecting the overall financial allocation as well as the challenges the country faces.

Pillar I: Green transition

The green transition is supported predominantly through nine investments and two reforms that provide a roadmap to a low-carbon future for the Irish economy. The reforms enshrine key climate targets in national legislation, strengthen the climate governance framework and dis-incentivise the use of fossil fuels through carbon taxation. These reforms commit Ireland to a 51% reduction in greenhouse gas emissions compared to 2018 levels by 2030 and to becoming a climate neutral society (achieving net zero greenhouse gases emissions) by 2050. The carbon tax includes successive annual increases in the carbon tax rate, by EUR 7.50 per tonne of CO_2 per year, following a trajectory that would lead to a rate of EUR 100 per tonne of CO_2 in 2030. The measures in the plan are aligned with the national energy and climate plan for 2021-2030.

Investments in the plan contribute to enhancing biodiversity, expanding sustainable transport and accelerating decarbonisation efforts. The plan supports carbon abatement measures through retrofitting and energy efficiency measures that have the potential to contribute to reducing greenhouse gas emissions. The construction of a shared Government data centre is expected to also lead to significant energy savings. The largest investment in the plan targets the transport sector. The investment in the Cork commuter rail aims to enable the future electrification of railways in the Cork metropolitan area and to expand sustainable mobility policy in the region that should reduce car use and increase the uptake of public transport, thus contributing to reducing emissions. The plan includes support for research, development and innovation, a substantial portion of which is earmarked for green projects. The plan also contributes to increased biodiversity through the restoration and rehabilitation of peatlands. Investments in waste water treatment plans are expected to also contribute to environmental objectives. In addition, the SOLAS green skills action programme is expected to contribute to upskilling efforts that have a clear focus on improving skills to progress the green transition and support climate action.

Pillar II: Digital transformation

The plan's measures related to digital transformation are well anchored in the analysis of Ireland's main challenges in digitalisation. While Ireland performs above the EU average in the Digital Economy and Society Index (DESI) (see Section 2.3), it still faces some fundamental challenges notably related to human capital.

Component 2 (Accelerating and expanding digital reforms and transformation) is dedicated to the digital transition. Several measures aim to contribute to the digital transition by supporting the digitalisation of enterprises, addressing the risk of the digital divide, including in the education sector, enhancing digital skills, and supporting the development of digital infrastructure and the delivery of digital public services.

Component 1 is also expected to partially contribute to the digital transformation. The plan contributes to addressing the key digital challenges by incentivising research teams to develop viable practical innovative solutions. The digital dimension of the national grand challenge programme focuses on eGovernment, eHealth and eInclusion.

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

All components of the plan are expected to significantly contribute directly to the third pillar. The green and digital components of the plan focus on smart and sustainable growth in particular, while the social and economic component of the plan has notable elements covering inclusive growth.

The plan includes several measures that are expected to contribute to economic cohesion, jobs, productivity, competitiveness. It has a strong focus on facilitating the green transition. In particular, investment in the Cork commuter rail is expected to support economic cohesion by enhancing the strategic potential of Cork as a regional economic driver and to act as a counterbalance to Dublin. Measures to improve energy efficiency, such as labour-intensive renovations, are expected to contribute to creating jobs. Activation support and upskilling measures, such as the work placement experience programme and the SOLAS recovery skills response programme aim to reinforce these efforts, while also contributing to social inclusion. Investment in five new and emerging technological universities aims to complement these efforts by building capacity in education and training in technological universities.

Supporting these efforts are measures that focus on research, development and innovation. The national grand challenge programme aims to facilitate the realisation of research and innovation projects across Government, on themes such as climate, health, digital and agriculture. The plan also supports the establishment of four European digital innovation hubs.

The plan is also expected to contribute to a well-functioning internal market with strong SMEs. SMEs are generally supported by the above-mentioned measures, which have the potential to improve productivity and competitiveness. In addition, the SME test has the potential to reduce regulatory barriers to the business activity of SMEs. Finally, the plan aims to support the digital transformation of SMEs.

Pillar IV: Social and territorial cohesion

Several measures in the plan are expected to contribute to social cohesion. The work placement experience programme (WPEP) and the SOLAS recovery skills response programme focus on activation support and upskilling, with the aim to improve labour market outcomes. WPEP targets jobseekers who have been unemployed for six months or more, supporting them with work placement, training, and an allowance. The SOLAS recovery skills response programme seeks to equip workers with green skills and skills to transition into growth sectors of the economy by offering a range of educational and training programmes. Reforms also seek to improve the provision of social and affordable housing by improving the development of public land for the delivery of housing and introducing schemes that could increase housing affordability for low-income households. Finally, the long-term sustainability of welfare systems is expected to be supported by reforms that simplify and harmonise the supplementary pension landscape.

Other measures also have the potential to contribute to territorial cohesion by addressing regional disparities. The technological universities transformation fund is expected to contribute to tackling regional disparities by building capacity in education and training in regionally based technological universities. Investment in the Cork commuter rail aims to support the sustainable growth of the metropolitan area by facilitating sustainable urban development. The investment in the suburban rail network is expected to provide greater integration with other existing and future public transport services in the Cork area. The rehabilitation of 33 000 hectares of peatlands is expected to contribute to the just transition in the Midlands, a territory whose economy has been hit by the exit from peat for electricity generation. In addition, the plan also aims at bridging the regional and digital divide by ensuring that learners of (post)-primary schools are equipped with the appropriate digital skills. Digital transformation of Irish education at all levels (schools, tertiary, lifelong learning) has the objective to mainstream essential digital skills across all settings. By way of illustration, the plan contains measures that aim to bring connectivity to 990 schools, many of which are in rural areas. In addition, the scheme aiming at the digital transformation of enterprise in Ireland is expected to target enterprises across the country, thereby also providing support and opportunities for companies located in less productive regions.

Pillar V: Health, and economic, social and institutional resilience, with the aim of, inter alia, increasing crisis preparedness and crisis reaction capacity

The plan contributes to the fifth pillar, as all components directly contribute to health and economic, social and institutional resilience. In particular, the plan includes investments and reforms of the healthcare system, measures to facilitate the green and digital transitions for both businesses and the workforce, and measures that may improve the effectiveness and resilience of public administration.

Measures in the plan are expected to improve the healthcare system's resilience. The introduction of a digital ePharmacy solution in hospitals is expected to support effective management of the health service and enable the integrated care delivery system. The deployment of an integrated financial management system aims to provide financial and procurement efficiencies, improve transparency and ultimately increase the capability of the finance function to support the health system. The introduction of the 'public only' Sláintecare consultant contract has the potential to improve the cost-effectiveness of the healthcare system, by ensuring all capacity currently available in the public system is used only for public healthcare activity. The expansion of participation in the chronic disease management programme is expected to make the health system more resilient by reducing the number of non-elective hospital admissions and by reducing bed days related to chronic disease treatment. The operationalisation of community healthcare networks may help build capacity in community care and help build more effective multi-disciplinary teams.

By facilitating the green and digital transitions for both businesses and the workforce, the plan has the potential to reinforce economic and social resilience. The plan is expected to contribute to facilitating the green transition of enterprises, by improving their carbon footprint metering systems, without entailing operational losses. The plan aims also to incentivise enterprises to invest in abatement opportunities through support that is expected to contribute to decrease significantly the payback period of these investments. The plan is expected to support upskilling and reskilling efforts with a focus on the green transition, and thereby support climate action. The provision of social and affordable housing is expected to abide by environmental standards, thereby contributing to the green transition whilst promoting social resilience.

The plan also addresses digitalisation needs of the Irish economy that were highlighted by the COVID-19 containment measures. The measure related to digitalisation of companies, mainly SMEs, is expected to reinforce their economic and social resilience and strengthen their capacity to participate in value chains across the EU, including through establishment of Irish European digital innovation hubs. Long term, the programme to provide digital infrastructure and funding to schools is expected to contribute to strengthening the sustainable growth potential, employment opportunities and resilience of young people. The reform measures under the digital component are expected to ensure that learners at all levels (schools, tertiary, lifelong learning) develop foundational skills to enable them to take part in the digital economy. Finally, the activation support and upskilling programmes are expected to help the Irish workforce transition towards new employment opportunities, including in ICT programming and web development.

The effectiveness and resilience of public administration is expected to be increased through several measures. The plan aims at reinforcing the government's digital capabilities. As currently there are disparate inefficient Government server rooms and data centres that are sub-optimal in terms of location, operational and cyber resilience, and physical risk, the plan aims to develop a shared Government data centre. In addition, the plan supports the digitalisation of the census operation. The next census in Ireland is due in 2026 and is expected to be conducted through a newly developed platform to enable households to complete their census return online. The measure also aims to better capture and analyse the data, to reduce both the burden on survey respondents and the cost to the State of collecting data while maintaining its quality and confidentiality. It also has a reuse potential for any large-scale data collection by public authorities. The introduction of the SME test is expected to help limit regulatory obstacles faced by SMEs when starting or growing their business. The reinforcement of the Anti-Money Laundering Compliance Unit's capacity to conduct inspections, combined with the risk assessment of trust or company service providers, is expected to improve anti-money laundering supervision, while reforms also have to potential to strengthen anti-money laundering enforcement.

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

The plan contributes to the sixth pillar, as two out of the three components directly contribute to policies for the next generation. Measures in the plan aim to help the next generation develop the necessary digital skills and support young people in gaining or regaining their footing in the labour market.

Several measures support the next generation by ensuring they can develop the necessary digital skills for the future. The programme to provide digital infrastructure and funding to schools is expected to enable embedding digital technologies in teaching and learning and contribute to the development of key digital skills, as well as mitigate and lessen the educational and social impact of the crisis to ensure an inclusive recovery. The new Digital Strategy for Schools aims at realising the potential and further embedding of digital technologies in school activities. Ireland's third ICT skills action plan aims to increase the number of ICT graduates by over 65% by the end of 2022. Finally, a grant is expected to support disadvantaged students in higher and further education in accessing ICT devices to facilitate the shift to online and blended models of learning. These measures are expected to address the risk of digital divide by focusing on digital skills throughout the education system and hence making it more resilient and better able to cope with disruptions with a specific focus on the next generation.

The young unemployed are mentioned in the plan as a target group specifically benefitting from the reskilling and upskilling measures. The plan notes that young people are overrepresented in the sectors that have been most severely impacted by the COVID-19 crisis. They are thus likely to particularly benefit from the work placement opportunities, associated allowances and training opportunities to be supported by the plan. Finally, the technological universities transformation fund is expected to support regionally based higher education and training, which may help improve the skills of young people and address regional disparities.

Conclusion of the assessment under criterion 2.1 in Annex V to the RRF Regulation

Taking into consideration all reforms and investments envisaged by Ireland, 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 Ireland 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

The plan provides a response to a significant subset of challenges faced by the Irish economy. The plan introduces reforms and investments aimed at addressing a significant number of challenges identified in the European Semester in 2019 and 2020. It contributes to addressing country-specific recommendations (CSRs) related to sustainable public transport, water, digital infrastructure, the digital divide in education, research and innovation, the front-loading of public investment, the promoting of private investment, employment through active integration support and upskilling, regulatory barriers to entrepreneurship, anti-money laundering, aggressive tax planning, social and affordable housing, pensions, and healthcare. Several of the reforms and investments also take into account regional disparities. Nonetheless, given the modest size of the financial contribution and the entrenched nature of some of the challenges, further efforts are needed in several areas in the coming years. Finally, some CSRs have already been addressed in a broadly satisfactory manner outside the plan, namely support to companies, particularly SMEs, through ensuring their liquidity (CSR 2020.3.1), increasing access to affordable and quality childcare (CSR 2019.2.2), and investment-related policy focused on the green transition (CSRs 2020.3.4 and 2019.3.1). The government has also fully put into place robust emergency policy measures to mitigate the negative economic impact of the crisis (CSR 2020.1.1). These included discretionary budgetary measures of 3.9% of GDP in support of the economy, which complement the operation of automatic stabilisers. Measures related to these areas were therefore not incorporated in the plan.

A major objective of the plan is to accelerate the green transition, consistently with the CSRs for 2019 and 2020 (CSRs 2019.3 and 2020.3). Achieving the 2030 climate and energy targets, while transitioning to a circular economy, and protecting and restoring healthy ecosystems, will be a major challenge. The component relating to the advancing of the green transition includes a very broad scope of measures, promoting energy renovation for private or public buildings, aiming at decarbonising enterprises, promoting sustainable transport, addressing biodiversity challenges through the rehabilitation of peatlands and improvement of water treatment.

The plan contains measures to improve efficiency in the clean and efficient production and use of energy (CSR 2020.3.4). In this regard, the plan includes two reforms. A first reform consists in the entry into force of the Climate Action and Low Carbon Development (amendment) Bill. Second, a carbon tax is expected to help decarbonise the economy by dis-incentivising the use of fossil fuels and encouraging the use of greener fuels by industry and society.

The plan includes investment in sustainable transport (CSRs 2019.3.2 and 2020.3.5). Road congestion around larger cities, combined with the need to decarbonise the transport sector, points to investment opportunities in transport infrastructure. The plan contains a significant investment included in component 1, accounting for 17% of the total cost of the plan, which aims to enable the future electrification of Cork commuter rail. The measure includes three sub-investments. The first sub-investment includes the creation of an additional through-running line, with an additional platform at Kent station. The second sub-investment includes double tracking of the current single line between Glounthaune and Midleton. The third sub-investment relates to the re-signalling of the lines to facilitate increased frequency of services and the subsequent electrified service. Most importantly, Ireland's commitment to purchase either electric or battery electric fleet is expected to contribute to the decarbonisation of the rolling stock. In addition this measure aims at bridging territorial divides by providing greater integration with other existing and future public transport services in the Cork area.

The plan includes measures that are expected to improve water supply and treatment (CSR 2020.3.6). The plan addresses waste water treatment plants across Ireland. It includes a measure dedicated to waste water treatment that is expected to contribute to the sustainable use and protection of water. The main aim of the measure is to advance 10 priority waste water treatment plant projects whose discharges have been identified as putting significant pressures on receiving water bodies. In addition, the rehabilitation of peatland is expected to lead to enhanced biodiversity[20]. It is also expected to contribute to water quality improvements, increased carbon storage and reduced carbon emissions.

The plan includes measures that support the digital transition, including through investment in digital infrastructure (CSRs 2019.3.4 and 2020.3.8). Digital infrastructure is

[20] The rehabilitation of peatlands also aims at bridging territorial divides by contributing to the just transition in the Midlands, a territory whose economy has been hit by the exit from peat for electricity generation.

essential for boosting the productivity of SMEs and public services. The measures envisaging the building of a low latency edge platform and the development of a shared Government data centre focus the investment on the digital transition and in particular on the digital infrastructure. In a similar vein, the suite of eHealth projects advances the development of digital infrastructure required to meet health demands and the integration of health services, which may further drive the digital transformation in the public service. The measure to support the digitalisation of companies in Ireland aims to help them undertake transformative digitalisation of their business processes to increase value to customers. The programme to provide digital infrastructure to schools is expected to facilitate the use of cloud computing solutions and reduce the need for physical equipment, thereby advancing digital transition. The online census response option measure focuses on digital transition by reforming a paper based and manually intensive data collection operation into a digital and more automated operation and by providing a digital service to every household in the country. The reform measures have the potential to help create an environment where people have the required skills to engage fully in, and take advantage of, the digital transition.

The plan is also expected to address the risk of digital divide, including in the education sector (CSR 2020.2.2). Disparities and regional divide related to digital remain in Ireland. Some reform measures are expected to address the risk of digital divide by focusing on digital skills throughout the education and training system and can be expected to make it more resilient and better able to cope with disruptions. The reform measures also have the potential to ensure that learners, at all levels, develop foundational skills to enable them to take part in the digital economy. The programme to provide digital infrastructure and funding to schools aims at equipping learners with digital skills and is expected to help address the digital divide by ensuring that all learners have equal access to appropriate digital infrastructure. Moreover, the measure to support the digitalisation of companies in Ireland aims at supporting the development of essential digital skills among the business community.

Several investments are expected to contribute to the front-loading of mature public investment projects (CSR 2020.3.2), the promotion of private investment (CSR 2020.3.3), and the use of more direct funding instruments to stimulate research and innovation (CSRs 2019.3.6 and 2020.3.7). The restart of the economy requires ambitious environmental, climate, energy and infrastructure investments. Some investments in the plan contribute to the completion of mature public investment projects. In particular, private investments may be front-loaded through the residential retrofit loan scheme, which aim to grant cheaper loans to private homeowners and non-corporate landlords to retrofit residential buildings. The retrofit pathfinder project aims to front-load public investment through the deep retrofit of selected public buildings. Private investment is expected to be promoted through the fund for the decarbonisation of the enterprise sector and the fund to drive digital transformation of businesses with a particular focus on SMEs. Research and innovation is expected to receive direct funding through the national grand challenge programme, which deploys a challenge-based funding model to support research and innovation projects and incentivises researchers to focus on projects that have the potential to contribute to the climate, healthcare, digital and agriculture sectors, whilst also delivering tangible impact for society. The plan is also expected to support the digital transformation of SMEs and includes the establishment of four European digital innovation hubs. During the implementation of the plan, sectoral support for the design, implementation and evaluation of research and innovation policy reforms will be available via the Horizon Policy Support Facility.

Investments under the third component of the plan focus on supporting employment through active integration support and upskilling (CSRs 2019.2.1 and 2020.2.1). Ireland has a relatively high share of households with low work intensity and faces skill shortages in several sectors. As part of the plan, the work placement experience programme aims to keep people who have been unemployed for six months or more close to the labour market, by providing them with work experience and training to increase their employability. The SOLAS recovery skills response programme seeks to equip workers with the skills to shift into growth sectors of the economy, with a focus, among others, on skills for green construction, climate change mitigation, IT, healthcare and logistics, which has the potential to help address skill shortages that persist in, among other fields, construction, IT, healthcare, and transport. These opportunities could help workers keep up with the changing requirements of a more green and digitalised labour market. The investments and reform measures to address the digital divide and enhance digital skills are expected to further support these efforts by helping strengthen basic digital skills needed to engage in the digital economy. Outside the plan, these investments are complemented on a national level by the training support grant for short-term skills, which is expected to allow individuals to pursue short-term specific training, and the SOLAS skills to advance programme, which is targeted at vulnerable groups in the Irish workforce with lower skills levels.

The plan includes measures that seek to reduce regulatory barriers to entrepreneurship (CSR 2019.3.7). Regulatory barriers to entrepreneurship negatively affect firm entry and exit and thereby the productivity of indigenous Irish firms. The planned SME test – four steps policy makers should follow to ensure they consider the possible effects of legislative proposals on SMEs – aims to remove any unnecessary regulatory obstacles SMEs face when establishing and growing their business. A consistent uptake of the SME test across Government departments is expected to help reduce the regulatory burden on SMEs. The plan also refers to initial steps towards a single SME portal currently being considered, which would aim to provide access to assistance and support to reduce the administrative burden on SMEs. Outside the plan, these reforms and investments are complemented on a national level through the introduction of online retail and online trading voucher schemes, which are designed to support small businesses to develop their online presence.

The plan is expected to partially address challenges to the effective supervision and enforcement of the anti-money laundering framework as regards trust or company service

providers (CSR 2020.4.3). Ireland faces risks due to its internationally oriented economy, involving significant inflow of foreign direct investments and the presence of complex legal structures with foreign sponsors. The publication of a sectoral risk assessment of trust or company service providers may improve the understanding of the risk exposure of these professionals. Supervision is expected to be intensified through the recruitment of additional specialist staff to assist with the supervision and management of trust or company service providers in 2021 and an increased number of inspections. In addition, new legislation operationalising any recommendations from a working group is expected to lead to better enforcement, by expanding the regulatory toolkit to include an administrative financial sanctions regime. At the same time, the plan does not include actions to bring about effective risk-based supervision by self-regulatory bodies. Outside the plan, these reforms are complemented on a national level through the introduction of a central register of beneficial ownership of collective asset-management vehicles, credit unions and unit trusts, which is expected to help ensure transparency of investment vehicles.

Reforms in the plan are expected to partially address features of the tax system that facilitate aggressive tax planning (CSRs 2019.1.3 and 2020.4.2). A limited application of withholding tax on outbound payments of interest, royalties, and dividends may lead to those payments being taxed at a very low rate or escaping tax altogether, if they are channelled to a low or no tax jurisdiction. In this respect, the commitment to future measures, including withholding taxes or, where relevant, non-deductibility, applying to outbound payments to EU blacklisted and all other zero-tax and no-tax jurisdictions is expected to limit the possibility of outbound payments not being taxed. At the same time, the extent of the reform (such as the level of a potential withholding tax) remains unclear and outbound payments to low tax jurisdictions are not addressed in the plan. The plan also includes several other measures relevant to aggressive tax planning, including enhanced controlled foreign company rules and completion of corporate tax residency reform. The plan finally includes an amendment of capital allowances on intangible assets. The effectiveness of this measure is however mitigated by indefinite grandfathering provisions, which ensure that existing structures will be unaffected by the legislative change.

The plan is expected to contribute to implementing pension reform plans (CSR 2019.1.4). The overall deficit of the pension system is expected to grow significantly in the long term and add risks to the sustainability of public finances. The proposed measures aim to contribute to the simplification and harmonisation of the pension landscape, and assisting in harmonising the tax treatment of contributions and helping simplify the drawdown process. These reforms would be a good step towards the full implementation of the pension reforms plans, as they are a part of the national roadmap for pensions reform for the years 2018 to 2023. Outside the plan, further actions in the roadmap for pensions reform include a new automatic-enrolment system, which is expected to address Ireland's low level of supplementary pension coverage, and a report from a commission on pensions to examine the sustainability of the state pension system, including the potential increase of the state pension qualifying age.

The plan includes measures that aim to increase the provision of social and affordable housing (CSRs 2019.3.5 and 2020.2.3). Shortages in social housing supply remain a significant challenge with regard to fostering inclusion. The Land Development Agency Bill in component 3 should confer functions on the existing Land Development Agency (LDA) to develop and regenerate relevant public land for the delivery of housing and to develop and manage housing, including a quota of social housing. Furthermore in component 3, the Affordable Housing Act is expected to launch the affordable purchase scheme for homes on public land, the affordable purchase shared equity scheme and the cost rental scheme. These schemes can be expected to increase housing affordability to low and medium income households, which is a particular challenge for Ireland. However, as housing affordability in Ireland is mostly caused by supply constraints, the Economic and Social Research Institute has noted that the affordable purchase shared equity could cause additional inflation. Effectively targeting the scheme to lower-income categories might increase its effectiveness while reducing the risks of creating inflationary pressures. The investments associated to these reforms will themselves not consume any RRF funding and are to be financed by the Irish Government, with the exception of selected cost rental scheme projects, which are expected to be complemented by European Investment Bank funding. Outside the plan, a substantial national budget of EUR 3.3 billion of Irish Exchequer funding will be dedicated to housing measures in 2021. This is expected to be complemented by numerous measures, including an upcoming national housing strategy with annual targets on the delivery of social homes, energy improvements of the social housing stock and a better enforcement of the vacant site levy.

Several measures aim at improving the cost-effectiveness, accessibility, and resilience of the healthcare system (CSRs 2019.1.4 and 2020.1.2). The Irish healthcare system is relatively expensive compared to the rest of the EU: the high proportion of non-government health spending contributes to driving up costs and inequity. The suite of eHealth investments presented in the plan is expected to increase the cost-effectiveness of the healthcare system by improving the efficiency of financial and procurement processes. These investments are also expected to indirectly improve accessibility to care services, by delivering ICT infrastructure to community health locations and allowing data to 'follow the patient'. Cost-effectiveness may also be improved through the implementation of the Sláintecare consultant contract, which has the potential to ensure a more efficient and equitable use of resources in the public system. The development of community healthcare networks has the potential to further improve accessibility and respond to the needs of health workforce, by building capacity to deliver care in community settings. Lastly, the chronic disease management programme is expected to improve the quality, accessibility and efficiency of chronic disease care and management. This measure also has the potential to strengthen the resilience of the healthcare system by lowering the incidence of avoidable hospital admissions. These reforms would be a welcome step towards the implementation of Sláintecare, Ireland’s long-term health system strategy. Among other objectives, Sláintecare aims to achieve a modern universal single-tier healthcare system, where residents have equal access to care services irrespective of their ability to pay.

The plan does not contain specific measures to broaden the tax base, although the issue could be addressed by measures outside the plan (CSRs 2019.1.2 and 2020.4.1). Excessive reliance on highly concentrated corporate taxes carries risks for the financing of permanent current expenditure. While the plan refers to a proposed trajectory of annual increases in the carbon tax rate as a base broadening measure, the Commission would not consider this measure as broadening the tax base, as it intervenes on the rate only and not the base. Nonetheless, the measure is expected to have a welcome environmental impact, by reducing carbon emissions. Outside the plan, in June 2021, the Irish Government enacted changes to local property tax, which brought properties built since 2013 into the charge and provided that property valuations will be reviewed every four years. Extending the scope of properties covered by the local property tax is expected to broaden the tax base.

Access to affordable and quality childcare (CSRs 2019.2.2) has been addressed by a variety of actions undertaken by the government outside the plan. Investing in access to quality and affordable childcare is necessary to support women’s labour market participation. Reform initiatives committed to in the first 5 strategy are being gradually implemented. These include the rollout of the national childcare scheme, the workforce development plan, the development of the new funding model, and the review of the operating system. Annual investment in early learning and childcare has increased by 141% since 2015, in part also due to increased demand. Investing in access to quality and affordable childcare and rolling out the national childcare scheme are expected to help increase the relatively low female employment rate.

By contributing to addressing these challenges identified in the European Semester, the plan is expected to boost the growth potential of the Irish economy in a sustainable manner. In particular, the aims of the plan are in line with the flagship areas identified by the 2021 annual sustainable growth survey for their potential to create jobs and growth and help reap the benefits from the green and digital transitions. Through forward-looking investments to facilitate the green and digital transitions, investments in skills, and the implementation of structural reforms, the plan can be expected to sustainably boost growth potential.

The measures in the plan also represent an adequate response to the general economic and social challenges in Ireland (see Sections 2.1 and 2.2). Despite positive growth during the pandemic year, the domestic Irish economy took a hit. Investment contracted substantially and actual (COVID-adjusted) unemployment has risen sharply. While progress in vaccination efforts leads to a pick-up of growth globally and in Ireland and recessionary trends are reversing, the plan provides an opportunity to boost sustainable and long-term growth. The plan includes several measures that have the potential to help improve employment and the productivity of domestic firms, and address skill shortages in specific sectors or regions. With respect to social challenges, the plan includes measures that could help those far away from the labour market through activation support and that may help address shortages in social and affordable housing.

The modest size of the plan implies that the potential to directly address the vulnerabilities in the context of the macroeconomic imbalance procedure is very limited. Ireland has been identified as a country with vulnerabilities stemming from large private and public debts and net external liabilities. While the direct impact of the plan on these vulnerabilities might be very limited, the plan may indirectly help lessen riskiness of the private debt and external debt to the degree it improves productivity, employment and competitiveness. Similarly, the planned reforms are expected to strengthen the business environment, as well as the efficiency of the public sector, thereby further reducing these vulnerabilities and the associated risks.

Conclusion of the assessment under criterion 2.2 in Annex V to the RRF Regulation

Taking into consideration the reforms and investments envisaged by Ireland, its recovery and resilience plan is expected to contribute to effectively addressing all or a significant subset of challenges identified in the country-specific recommendations, or challenges in other relevant documents officially adopted by the Commission under the European Semester, and the recovery and resilience plan represents an adequate response to the economic and social situation of Ireland. This would warrant a rating of A under the assessment criterion 2.2 in Annex V to the RRF Regulation.

Table 7: Mapping of country challenges identified in 2019-20 country-specific recommendations and the Irish recovery and resilience plan components

Country challenges (as identified in Section 2)	**Associated CSR (2019-2020) and European Semester recommendations**	**Component 1- Advancing the green transition**	**Component 2- Accelerating and expanding digital reforms and transformation**	**Component 3- Social and economic recovery and job creation**
Address investment needs related to sustainable transport	2019.3.2, 2020.3.5	●		
Address investment needs related to water	2019.3.3, 2020.3.6	●		
Address the risk of digital divide, including in the education sector	2020.2.2		●	○
Focus investment on digital infrastructure	2019.3.4, 2020.3.8		●	
Front-load mature public investment projects	2020.3.2	●	●	
Promote private investment	2020.3.3	●	○	
Provide personalised active integration support and facilitate upskilling	2019.2.1		●	●
Support employment through developing skills	2020.2.1		●	●
Use more direct funding instruments to stimulate research and innovation (R&I)	2019.3.6, 2020.3.7	○	○	
Reduce regulatory barriers to entrepreneurship	2019.3.7			●
Effective supervision and enforcement of the anti-money laundering framework	2020.4.3			○
Curbing aggressive tax planning	2019.1.3, 2020.4.2			○
Increase the provision of affordable and social housing	2019.3.5, 2020.2.3			●
Ensure the long-term fiscal sustainability of the pension system	2019.1.4			●
Improve the cost-effectiveness, accessibility, and resilience of the healthcare system	2019.1.4, 2020.1.2		●	●
Broaden the tax base	2019.1.2, 2020.4.1			

Key: "●" investments and reforms of the component significantly address the challenge; "○" the component partially addresses 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

Fostering economic growth and jobs

The plan is designed to support economic growth and job creation through investments and reforms. It is also in line with the 2020 new industrial strategy[21]. Given the size of the RRF financial contribution, at below EUR 1 billion or 0.3% of Ireland's 2019 GDP, the direct impact from a macroeconomic perspective is expected to be small. Hence, the plan assesses the impact on growth and employment in the medium term (5 years), and not in the short (2 years) and long (20 years) term. The COSMO model used by the Irish authorities estimates that the level of GDP is set to be 0.1 percent above the baseline and increase employment by 0.15 percent above the baseline over 2021-2026. The QUEST model used by the Commission provides higher estimates for the impact of NextGenerationEU (NGEU) on GDP and employment, but most of this impact comes from spill-over effects (see the Box 2).

Investments and policies to improve energy efficiency are expected to contribute to creating jobs and to the green transition. These investments encompass renovation works which are particularly labour intensive, decarbonisation of Irish enterprises, sustainable transport (with a large share of funding dedicated to rail) as well as peatland rehabilitation. In addition to contributing to job creation and economic growth, these investments are set to help achieve climate goals. This is expected to create jobs, while investments in sustainable rail transport may help indirectly increase labour force participation and productivity by reducing travel times. Meanwhile, reforming environmental taxation is expected to raise revenues that can be used to create new jobs and reduce the carbon footprint.

Investments and policies to accelerate digitalisation are expected to improve productivity over different horizons, as well as create jobs. Investments are envisaged in the digitalisation of public service, schools and Irish enterprises, contributing to reducing the digital divide, addressing skill shortages and reducing youth unemployment. Such investments in the public sector may help achieve higher efficiency of the public sector and ease interactions with the private sector. Investments in schools target skills and digital competences that could improve productivity in medium and long term. Investments in business digitalisation aim at building awareness, diffusion of technologies and use of AI to enhance productivity. Finally, investments in eHealth have the potential to achieve higher productivity and cost-efficiency in the healthcare sector. These investments are expected to be accompanied by reform measures to address the digital divide and help the economy transition to digital work and business activity.

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[21] European Commission, Updating the 2020 New Industrial Strategy, COM(2021) 350 final, 05.05.2021.

Investments and reforms in the social, education and business fields are expected to encourage job growth and increase productivity. Some measures in the plan are directed at developing skills to help participants in these projects find employment, as well as to ensure an adequate pool of labour is available to facilitate the green and digital transitions. Such skill enhancing measures are expected to help workers to adjust to post-crisis structures, thereby contributing to growth. The reforms relating to affordable housing aim at addressing housing needs in the medium term and, if they do not lead to additional inflationary pressures, should improve Ireland's capacity to increase labour supply. Measures in the health sector are expected to help ensure the accessibility of healthcare services, including for workers and their dependents. A dedicated reform aims to remove unnecessary regulatory obstacles for businesses and sustain SME growth and employment.

Box 2: Stylised NGEU impact simulations with QUEST - Ireland

Model simulations conducted by the Commission using the QUEST model show that the economic impact of the NextGenerationEU (NGEU) in Ireland could lead to an increase of GDP of between 0.3% and 0.5% by 2026[22]. Spillovers account for a large part of such impact.

According to these simulations, this would translate into up to 6 200 additional jobs. Cross border (GDP) spillovers account for 0.4 percentage points in 2026, showing the value added of synchronised expenditure 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)[23].

Table 8: 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	0.6	0.6	0.5	0.5	0.5	0.5	0.4	0.3	0.2	0.1	0.0
of which spillover	0.6	0.5	0.5	0.5	0.4	0.4	0.3	0.2	0.1	0.1	0.0
Low productivity	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.0

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 Ireland GDP by 11% in 20 years' time, in line with findings for the EU average[24].

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 Ireland's recovery and resilience plan.**

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

[23] Technically, the low productivity scenario considers a significantly reduced output elasticity of public capital.

[24] 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.

Investments in the plan financed through the RRF are expected to be growth-enhancing expenditure additional to the baseline without the RRF. According to the data presented in the plan, the baseline of growth-enhancing public expenditures not financed by the RRF over the period of 2021-2026 is slightly above the average level in the three-year period before the pandemic (2017-2019). The projected RRF-financed growth-enhancing expenditure is estimated at 0.1% of GDP in 2021-2026. The plan is expected to contribute to the government's capacity to support the economy, although public investment has been picking up after a long period of subdued investment. Public investment in 2017-2019 was at 2.0% of GDP, well below the EU average of 2.9% of GDP, but above the average when taking public investment as a share of GNI* into account (3.3%).

Strengthening social cohesion

The plan contains a range of measures that are expected to strengthen social cohesion by supporting employment prospects, particularly through creating work placement opportunities, training and educational programmes. The plan includes measures with a particular focus on digital infrastructure in schools, as well as education and training in technological universities that is attuned to regional needs. The plan also includes the work placement experience programme (WPEP), which provides active integration support to people who have been unemployed for six months or more. The SOLAS recovery skills response programme aims to equip participants with those skills most needed in growth sectors, in particular green and digital skills. Both the WPEP and SOLAS recovery skills response programme can be expected to contribute to cohesion and social convergence, as they provide support to those who are in a disadvantaged labour market position. Finally, the technological universities transformation fund has the potential to strengthen the provision of quality tertiary education and reduce territorial disparities. The proposed reforms are in line with the European Pillar of Social Rights relating to active support to employment. They can be expected to provide personalised training and re-qualification.

A set of reforms has the potential to contribute to addressing the high need for social and affordable housing. Shortages in social housing supply can be a significant challenge to fostering inclusion, including for the most vulnerable, and reducing risks of poverty and social exclusion. The Land Development Agency Bill is expected to contribute to the delivery of additional housing supply by conferring new functions on the existing agency to develop and regenerate relevant public land for the delivery of housing and to develop and manage housing. In addition, the Bill requires that a large proportion of any housing provided on relevant public land be made available for affordable housing and contains an additional quota for social housing. The Affordable Housing Act is expected to launch three different schemes, covering both rental and purchase, which can be expected to increase housing affordability to low and medium income households. The proposed reforms are in line with the European Pillar of Social Rights relating to housing and assistance for the homeless, as they can be expected to increase access to social housing or housing assistance of good quality to those in need, although expected future needs for social housing in Ireland are likely to be higher than the number of units currently planned to be created.

Several measures have the potential to help ensure timely access to affordable healthcare of good quality. eHealth investments in the plan have the potential to improve accessibility by supporting ICT infrastructure in the community healthcare sector. In addition, they may improve cost-effectiveness through the implementation of a single national finance and procurement system for the entire health sector. With respect to reforms, the implementation of the Sláintecare consultant contract, operationalisation of community health networks and implementation of the chronic disease management programme are expected to help achieve the objective of the European Pillar of Social Rights relating to access to affordable, preventive and curative health care of good quality. The health-related reforms are all actions in support of Sláintecare's overarching goal to deliver a universal, single-tier healthcare where patients are treated in public hospitals solely on the basis of clinical needs rather than ability to pay.

Reducing vulnerability and increasing resilience

The plan is expected to reduce vulnerabilities and increase economic resilience. Ireland has been identified among the countries experiencing imbalances. The country's vulnerabilities relate to large private and government debts and net external liabilities. Reforms and investments included in the plan can be expected to increase employment and productivity, hence lessening the burden of private debt and increasing the resilience against external shocks. However, the plan's direct impact may be limited due to the modest size of the financial contribution. Economic resilience is also expected to be strengthened by the green and digital investments, which have the potential to support Irish companies, and SMEs in particular. Reforms in the public sector may aid institutional resilience.

The plan includes a range of measures that may strengthen the capacity of the economic and social structures and institutions to adjust to and withstand shocks. Such measures include actions to increase the resilience of public administration, strengthen the health system, improve the adaptability of education, and strengthen social resilience by addressing housing needs.

Public administration is expected to be made more resilient by several measures in the plan. In addition, the plan may also help Ireland better address risks related to its anti-money laundering framework due to its internationally oriented economy. The plan has the potential to strengthen anti-money laundering supervision and enforcement, with a reinforcement of capacity and resources of supervisors – supported by the publication of a sectoral risk assessment of trust or company service providers – and steps towards sanctioning powers.

A set of reforms and investments included in the plan are expected to reinforce the robustness and resilience of health services. Digitalisation of the healthcare system, through eHealth investments such as the deployment of an ePharmacy system and an integrated financial management system, can be expected to improve resilience by standardising, integrating and improving the effectiveness of processes. By delivering care within the community, the proposed reforms aiming to expand the chronic disease management programme and operationalise community healthcare networks may increase resilience by helping avoid hospital admission as much as possible. In addition, the introduction of the 'public only' Sláintecare consultant contract has the potential to address the current number of temporary and unfilled consultant posts, as well as improve the cost-effectiveness of the healthcare system by ensuring that all capacity currently available in the public system is used for public healthcare activity only.

The plan has the potential to improve the adaptability of education to new needs. The technological universities transformation fund has the potential to improve the adaptability of higher education to regional needs, by building capacity in training and education at regionally-embedded technological universities.

Finally, reforms aiming to address housing affordability needs may strengthen social resilience. If left unaddressed, constraints limiting the supply of housing could contribute to affordability concerns, which could, in the long term, act as a constraint on the labour force and barrier to investment. Improving the development of public land for the delivery of housing and increasing housing affordability for low and medium income households would be expected to improve Ireland's capacity to attract new businesses and to increase labour supply.

Cohesion and convergence

The productivity enhancing measures in the plan have the potential to advance convergence between domestic and foreign firms, as well as between sectors. To tackle the unbalanced digitalisation among companies, the plan includes the programme to drive digital transformation of companies, particularly SMEs, across all sectors in Ireland. This measure aims to advance innovation, expand market presence, boost productivity and ultimately increase competitiveness. Support is envisaged in a tailored way such as, by developing online presence, digitalising products and business processes, and using digital technologies to develop new markets and business models. Regulatory barriers to entrepreneurship, which negatively affect firm entry and exit and thereby the productivity of indigenous Irish firms, are expected to be lowered by increasingly applying the SME test. Access to the labour market and productivity of the workforce are expected to be improved by the activation support and upskilling measures included in the plan, especially in economic sectors most relevant for the green and digital transitions.

The plan includes measures that are expected to reduce disparities between different territories. Investments in five regionally-based technological universities are expected to contribute to tackling persistent regional economic disparities by supporting training and education, building on local strengths through strong links with stakeholders in the region. Reducing local bottlenecks in public transport in the Cork area is expected to have a positive impact for the whole transport network. Investments in regional commuter rail are expected to help facilitate local firms in attracting talent. The rehabilitation of 33 000 hectares of peatlands is expected to help mitigate the negative impact of the exit from peat for electricity generation in the Midlands region. In addition, the plan also aims at reducing disparities by enhancing connectivity of a number of schools, many of which are in rural areas, and by supporting the digital transformation of enterprise in Ireland.

Some measures in the area of healthcare are also expected to contribute to alleviating social and territorial disparities. In particular, expanding the provision of public health services and creating healthcare networks based on the needs of local populations is expected to effectively respond to this challenge. As a whole, the health-related measures in the plan also contribute toward making progress on the implementation of the Sláintecare reform programme with the aim of achieving a universal single-tier healthcare system where everyone has equal access to services irrespective of their ability to pay.

The plan also includes a set of measures that are aimed at addressing risks of a digital divide, including in the education sector. The programme to provide digital infrastructure and funding to schools aims at equipping learners with digital skills and is expected to help address the digital divide by ensuring that all learners have equal access to appropriate digital infrastructure. Many of the schools to which this plan aims to bring connectivity are in rural areas. The reform measures may address the risk of digital divide by focusing on digital skills throughout the education system and can be expected to make it more resilient and better able to cope with disruptions. The reform measures also have the potential to ensure that learners, at all levels, develop foundational skills to enable them to take part in the digital economy. Moreover, the measure to support the digitalisation of companies in Ireland aims at supporting the development of essential digital skills among the business community.

Conclusion of the assessment under criterion 2.3 in Annex V to the RRF Regulation

Taking into consideration all reforms and investments envisaged by Ireland, 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.

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

Ireland performs relatively well on a number of indicators of the Social Scoreboard supporting the European Pillar of Social Rights, while challenges remain. 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. While extended income subsidy schemes have contributed to cushioning the economic impact of the pandemic so far, the employment rate decreased to 73.4% (-1.7 percentage points) and unemployment increased to 5.8% (+0.8 percentage points) in 2020. Ireland ranks better than average or among the best performers in terms of income quintile ratio, unemployment rate, early leavers from education and training, net earnings of a full-time single worker earning the average wage, and impact of social transfers. The share of people with basic digital skills in Ireland has increased over the past years, reaching 53% in 2019. However, this is still below the EU average (56%) and there is a risk of digital divide, in part due to a high number of households with low work intensity and the high level of digitalisation of the Irish economy and public sector.

Social Scoreboard for IRELAND

Equal opportunities and access to the labour market	Early leavers from education and training (% of population aged 18-24) (2020)
	Youth NEET (% of total population aged 15-24) (2020)
	Gender employment gap (2020)
	Income quintile ratio (S80/S20) (2019)
	At risk of poverty or social exclusion (in %) (2019)
Dynamic labour markets and fair working conditions	Employment rate (% population aged 20-64) (2020)
	Unemployment rate (% population aged 15-74) (2020)
	Long term unemployment (% population aged 15-74) (2020)
	GDHI per capita growth (2019)
	Net earnings of a full-time single worker earning AW (2019)
Social protection and inclusion	Impact of social transfers (other than pensions) on poverty reduction (2019)
	Children aged less than 3 years in formal childcare (2019)
	Self-reported unmet need for medical care (2019)
	Individuals' level of digital skills (2019)

Critical situation	To watch	Weak but improving	Good but to monitor	On average	Better than average	Best performers

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 and social situation of vulnerable groups remains a challenge and is likely to have been exacerbated by the crisis. The number of people not in education, employment or training (NEET) gives reason for concern (12% in 2020, almost 2 percentage points increase year-on-year). While the share of people living in low work-intensity households has been decreasing since 2013, it still remains one of the highest in the EU (13.6% vs 8.3% in 2019 in the EU). The limited availability of social services to disadvantaged communities and the insufficient level of targeted active labour market policies aggravates the situation. Individualised support in the form of strengthened social services to these groups, activation policies and increased training on basic skills (including digital) could help address challenges. Rent increases in big cities and an insufficient provision of social and affordable housing have led to a rising number of homeless people and call for adequate measures.

There is scope for improved coverage of early childhood education and care in Ireland. While the provision of quality and affordable childcare has improved over the past years, Ireland is still well below the EU average in terms of the proportion of children aged 3 or less attending childcare for more than 30 hours a week. This continues to have an adverse effect on female labour market participation. The gender employment gap (12.1% in 2020) is still above the EU average (11.3%).

The plan submitted by Ireland addresses a number of employment and social policy challenges relevant for the implementation of the European Pillar of Social Rights. To foster equal opportunities and access to the labour market, the plan envisages re- and upskilling measures in the green and digital sectors for all that have lost their job due to the pandemic. A particular focus on those furthest away from the labour market is given through a work placement programme that supports people which have been in unemployment for more than 6 months. Their re-entering the labour market is envisaged by acquiring relevant on-the-job experience with a view to an employment contract. The challenge of the digital divide is addressed by the recovery and resilience plan through a combination of infrastructure and skills-focused projects. The measures proposed include the provision of high-speed connectivity for primary schools and digital devices and software for disadvantaged students in (post)-primary schools. Further measures, as outlined in the reform to address the digital divide, are laptops for disadvantaged students in further and higher education and a 10-year adult literacy, numeracy and digital literacy strategy. While these measures go in the right direction, the focus on disadvantaged groups in the plan could be stronger. The high need for affordable and social housing is addressed through numerous reforms and investments, which are outlined in the recovery and resilience plan but are financed through other sources. Affordable housing is well addressed by the plan, but measures on social housing could require further efforts to address the challenge given its size.

4.4. The principle of 'do no significant harm'

The RRF Regulation requires that no measure included in the plan leads to significant harm to any of the six environmental objectives within the meaning of Article 17 of the Taxonomy Regulation[25]. 'Do no significant harm' (DNSH) compliance is a necessary condition for the Commission to positively assess the plan. Ireland has included a detailed 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 Ireland's plan complies with DNSH on that basis.

Ireland satisfactorily substantiated compliance as part of the DNSH assessment. By selecting measures that either contribute substantially to environmental objectives, such as those focussing on energy efficiency, or have no or an insignificant foreseeable impact on environmental objectives (such as those on labour market, social policy, or public administration), the measures included in the Irish plan can be considered DNSH compliant from the outset. 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.

Ireland confirmed compliance with the DNSH requirements of the measures related to energy efficiency (measures 1.1, 1.3 and 3.8). As regards non-hazardous construction and demolition waste generated on construction sites, and the limitation of waste generation in

[25] 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.

processes related to construction and demolition, Ireland confirmed that building designs and construction techniques would support circularity and compliance with air quality standards.

Regarding the decarbonisation of enterprises (measure 1.2), which includes potential support to the purchase of biomass boilers, Ireland gave assurance that biomass is expected to meet the sustainability and greenhouse gas emission savings. In the national grand challenge programme, Ireland provided a detailed DNSH assessment and specified that brown research and innovation would be excluded from the awarded projects.

Regarding the sustainable transport measure (1.4), Ireland clarified that the construction of double rail tracks would not increase greenhouse gas emissions. In the short term this would be due to the expected decrease in road congestion, and in the medium term due to the entire electrification of the fleet. The implementation of the Cork metropolitan area transport strategy, to which the recovery and resilience plan is envisaged to contribute significantly, is expected to reduce environmental emissions in the range of 2 to 5%. Ireland estimates that the full implementation of the strategy may lead to a reduction of 46 000 tonnes of CO_2 equivalent per year in vehicular emissions. Ireland also provided specific guarantees for a number of measures in other components, such as component 3 where upskilling and reskilling opportunities are expected to be subject to exclusion lists as to the types of activities being covered, in order to ensure the measures' compliance with the DNSH principle.

Conclusion of the assessment under criterion 2.4 in Annex V to the RRF Regulation

Taking into consideration the assessment of all the measures envisaged, no measure for the implementation of reforms and investments projects included in Ireland'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 RRF Regulation.

4.5. Green transition

Climate target

The plan follows the methodology for climate tagging set out in Annex VI to the RRF Regulation by identifying intervention fields and corresponding coefficients for the calculation of contribution to the climate change objectives. In cases where the selected intervention field includes specific conditions to justify the climate contribution, those are explained in the description of the measure and reflected in milestones and targets, where relevant. To ensure that the climate contribution of certain measures is not overestimated, Ireland split the measures into sub-measures to the extent possible, with a relevant intervention field for each sub-measure.

Overall, based on the methodology, measures supporting climate change objectives in Ireland's recovery and resilience plan account for EUR 414 million, which represents 42% of the plan's total allocation of EUR 989 million. This exceeds the minimum climate target of 37% set out in the RRF Regulation. The climate change contribution of each of the components of Ireland's recovery and resilience plan is set out in Table 9 below.

Table 9: Climate contribution per component

Component	Cost (EUR million)	Climate-related (EUR million)	Share dedicated to climate	
			as % of the cost of the component	as % of the non-repayable allocation
1 Advancing the green transition	518.2	369.0	71.2%	37.3%
2 Accelerating and expanding digital reforms and transformation	291.0	15.6	5.4%	1.6%
3 Social and economic recovery and job creation	180.8	29.0	16.0%	2.9%
Total	***989.9***	***413.6***	***41.8%***	***41.8%***

Source: Irish recovery and resilience plan

Note: the plan's total allocation is EUR 988,966,534. This corresponds to the financial allocation after deduction of Ireland's proportional share of the expenses of Article 6(2) of Regulation (EU) 2021/241, calculated in accordance with the methodology of Article 11 of that Regulation. The amount of the estimated total costs of the recovery and resilience plan is higher than the plan's total allocation.

Green transition

The Irish recovery and resilience plan allocates a significant set of reforms and investments to the objective of addressing the challenges of the green transition. The proposed reforms and investments are aligned with the national energy and climate plan and are expected to contribute directly to the EU's 2030 climate targets and 2050 climate neutrality. Measures in the plan are expected to contribute to meeting national and EU targets for environmental policy and biodiversity.

Several measures in component 1 are dedicated to advancing the decarbonisation of Ireland. Retrofitting of the residential housing stock is expected to be promoted by offering loans with reduced interest rates to private homeowners and corporate landlords, to finance energy efficiency upgrades. Energy efficiency of public buildings is also supported through the 'public sector retrofit pathfinder project'. This measure has the potential to contribute to reduced energy consumption and greenhouse gas emissions thanks to the refurbishment of public office buildings, including the Tom Johnson House in Dublin, an office block of 10 650 m². Smart green data systems are also promoted through the plan to incentivise the installation of energy metering and monitoring control systems to speed up business's transition to a low carbon economy and assist with reducing greenhouse gas emissions.

Sustainable transport is promoted through the Cork commuter rail investment. The Irish plan supports investments to improve rail infrastructure in the Cork area. Promoting sustainable mobility alternatives to private passenger cars and the uptake of public transport should contribute to lowering greenhouse gas emissions. This measure forms part of the Cork metropolitan area transport strategy, and supports future electrification of rail services on the Cork area commuter rail network.

Biodiversity and ecosystems are supported in the plan through several investments, notably in the rehabilitation of peatlands and the river basin management plan. This measure is expected to lead to enhanced biodiversity and eco-systems, water quality improvements, increased carbon storage and reduced carbon emissions. The restoration of peatlands has the potential to promote and encourage the return of flora and fauna in these areas. It is estimated in the Irish plan that over a 30-year timescale 3.3 million tonnes of CO_2 emissions should be avoided thanks to the implementation of the enhanced rehabilitation measures. The plan invests in small waste water treatment plants across Ireland that are expected to contribute to the sustainable use and protection of water and marine resources, pollution prevention and control. This measure also aims to contribute to the protection and restoration of biodiversity and ecosystems. The main aim of the measure is to advance priority waste water treatment plant projects whose discharges have been identified as putting significant pressures on receiving water bodies.

Innovation in green technology and data systems is expected to play an important part in reducing Ireland's carbon footprint. The national grand challenge programme incentivises innovation in green and climate solutions. The measure encourages technology transfers and cooperation between enterprises focussing on the low carbon economy. Funding is expected to be directed towards supporting research and innovation projects across government which have the potential to contribute to environmental objectives.

Ireland has earmarked a substantial financial envelope to advancing green skills. According to the plan, a suite of educational courses and training programmes aimed at developing green skills should be developed. This is expected to contribute to upskilling and reskilling those negatively affected by the pandemic whilst contributing to achieving Ireland's carbon reduction targets and climate neutrality by 2050.

The development of a shared Government data centre is expected to lead to reduced energy consumption. The majority of current public service server rooms and data centre facilities are old and inherently inefficient from a power usage perspective, which renders them unfit for purpose. By increasing the overall power usage effectiveness the development of a new shared Government data centre aims to reduce by at least 50% the levels of energy consumption compared to the existing data centres and server rooms it is replacing.

The recovery and resilience plan is expected to strengthen Ireland's governance framework of its climate objectives by ensuring environmental legislation is enshrined into law. The entry into force of The Climate Action and Low Carbon Development (amendment) Bill 2021 is expected to drive Ireland's transition to a low carbon economy with the objective of ensuring Ireland becomes a climate neutral economy by 2050. Milestones in the plan include the adoption of Ireland's first carbon budget programme and the obligation to update the climate action plan on an annual basis. This reform underpins the investments being carried out in component 1.

The lasting impact of the envisaged measures on environmental objectives is reflected by the expected reduction in greenhouse gas emissions and by energy savings resulting from improved energy efficiency. The recovery and resilience plan includes measures aimed at reducing greenhouse gas emissions in the residential sector. The loan retrofit scheme fully meets the purposes of the 2019 climate action plan whereby Ireland commits to reducing greenhouse gas emissions in the residential sector from 6 million tonnes CO_2 equivalent in 2017 to between 3 and 4 million tonnes CO_2 equivalent in 2030 and to setting a trajectory towards net-zero greenhouse gas emissions by year 2050. The decarbonisation of enterprises is expected to contribute specifically towards achieving the industry target of reducing emissions by 10%-15% by 2030 (2019 climate action plan). CO_2 savings resulting from the retrofit of Tom Johnson House, which are expected to be realised from the re-use of concrete, are estimated at around 200-250kg CO_2/m^2. The reuse of the building's structures is expected to result in an estimated saving 1 700 tonnes of CO_2. The current building energy rating is C3 with 253 $kWh/m^2/year$ primary energy use, while the target building energy rating after refurbishment is expected to be A2 with 61 $kWh/m^2/year$ primary energy use. This represents a 75% reduction in primary energy use. The measure related to sustainable transport is expected to lead to a yearly reduction in vehicular emissions of 46 000 tonnes of CO_2 equivalent, as a result of its full implementation, this includes the rail elements for the overall Cork metropolitan area transport strategy project.

Conclusion of the assessment under criterion 2.5 in Annex V to the RRF Regulation

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 contribute 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

Digital tagging

The plan follows the methodology for digital tagging set out in Annex VII to the RRF Regulation by identifying intervention fields and corresponding coefficients for the calculation of contribution to the digital objectives. The choice of intervention fields for the digital transition is well justified and reflects the nature, focus, objective or expected outcome of the investments included in the component. The plan does not propose any increased digital coefficients for any measure.

Overall, based on the methodology, measures supporting digital objectives in Ireland's recovery and resilience plan account for EUR 312 million, which represents 32% of the plan's total allocation of EUR 989 million. This is above the 20% target set out in the RRF Regulation. The digital contribution of each of the components of Ireland's recovery and resilience plan is set out in Table 10 below.

Table 10: Digital contribution per component

Component	Cost (EUR million)	Digital contribution (EUR million)	Share dedicated to digital	
			as % of the cost of the component	as % of the non-repayable allocation
1 Advancing the green transition	518.2	21.4	4.1%	2.2%
2 Accelerating and expanding digital reforms and transformation	291.0	291.0	100%	29.4%
3 Social and economic recovery and job creation	180.8	0	0%	0%
Total	***989.9***	***312.4***	***31.6%***	***31.6%***

Source: Irish recovery and resilience plan

Note: the plan's total allocation is EUR 988,966,534. This corresponds to the financial allocation after deduction of Ireland's proportional share of the expenses of Article 6(2) of Regulation (EU) 2021/241, calculated in accordance with the methodology of Article 11 of that Regulation. The amount of the estimated total costs of the recovery and resilience plan is higher than the plan's total allocation.

Digital transition

The plan is comprised of measures to accelerate and expand the digital transformation that are also expected to be catalysts for the wider economic recovery, growth and increased competitiveness. There is a strong focus on the digital transition and addressing related challenges with one component out of three, component 2 (Accelerating and expanding digital reforms and transformation), specifically dedicated to the digital transformation of several sectors and to addressing the country-specific challenges resulting from the digital transition.

The digital component is coherent and well balanced and puts a strong emphasis on the digital transition and the challenges resulting from it across economic and social sectors. It includes six investment measures and one reform to support the digitalisation of enterprises, address the risk of the digital divide (including in the education sector), enhance digital skills, and support the development of digital infrastructure and the delivery of digital public services. The digital component contributes to addressing Ireland's priorities and CSRs, notably on supporting the digital transition, in particular digital infrastructure, as well as on digital skills and the risk of the digital divide. The four digital RRF flagships (*connect, modernise, scale-up and reskill and upskill*) are also well covered. The plan also tackles the four strategic priorities identified at EU level and reaffirmed in the recent communication on Europe's Digital Decade[26]: skills, infrastructures, business, and government. Finally, the measures in the component cover five of the seven digital policy areas identified in Annex VII to the RRF Regulation, namely: (i) connectivity, (ii) human capital, (iii) digital public services, (iv) digitalisation of businesses, and (v) investment in digital capacities and deployment of advanced technologies. In addition, digital-related investment in R&D are expected to be covered by the plan.

With regard to connectivity, Ireland proposes to build a low latency edge platform to support connectivity and compute capacity close to the user. In 2020, Ireland performed well on connectivity and the proposed platform (measure 2.5) aims to further advance Ireland's 5G ambitions. The platform on which a variety of 5G public services are to be developed, tested and deployed is expected to be created with a high-speed backbone, compute nodes and low latency front haul. Ultimately, it is expected to constitute an enabler for other (public) services, such as for testing technologies and spectrum in the area of public protection and disaster relief, as well as in the context of 'test before invest' for SMEs and start-ups. By exploiting the transformative power of digital technologies, the measure is expected to contribute to the improvement of the quality of public services and to stimulate innovation and economic growth, thereby having a long-term impact on the Irish economy.

With regard to human capital, the plan supports enhanced digital skills through infrastructural development in the education sector. This is particularly relevant, as in 2019 a relatively low percentage of the population had at least basic digital skills. The plan includes a programme to provide digital infrastructure and funding to schools (measure 2.3). The objective of this measure is to ensure that all learners are equipped with appropriate skills for the digital age and to improve the educational inclusion of students at risk of disengagement due to lack of access to digital devices, software, or network connection. More precisely, one of the sub-measures complements the national broadband plan by delivering high-speed broadband connectivity to approximately one third of primary schools (990 schools) that would otherwise remain on speeds of less than 100 Megabits per second by 2023. The proposed sub-measure is expected to enable embedding digital technologies in teaching and learning and to contribute to developing key digital skills. In addition, as many of the impacted schools are in rural areas, it is also expected to lead to better social inclusion, poverty reduction and economic development in rural areas. Another sub-measure addresses the digital divide by enabling (post)-primary schools (3 415 schools) to support students most at risk of educational disadvantage through the

[26] COM(2021) 118 - 2030 Digital Compass: the European way for the Digital Decade, 9 March 2021.

provision of digital devices and software. This sub-measure is expected to mitigate and lessen the educational and social impact of the crisis and ensure an inclusive recovery.

The plan also includes a measure supporting the digital transformation of Irish education at all levels, enhancing digital skills and addressing the risk of a digital divide. The reform (measure 2.7) consists of four separate, yet complementary sub-measures. First, the development of a new digital strategy for schools 2021-2027 aims at further embedding digital technologies in school activities. Secondly, due to the pandemic the ways of working have changed and this has underlined the importance of high-level ICT skills. Ireland's third ICT skills action plan therefore aims to increase the number of ICT graduates by over 65% by the end of 2022. This should be achieved through various measures such as the creation of a 'progression pathway' in further and higher education, expansion of ICT apprenticeships and reskilling professionals. Thirdly, a new 10-year adult literacy, numeracy and digital literacy strategy is under development and aims to help individuals build up their knowledge in terms of literacy, numeracy and digital literacy thereby enabling them to participate fully in society. Finally, the last reform measure provides for a one-off COVID-19 grant to higher and further education institutions to enable them to provide disadvantaged students with ICT devices to facilitate the shift to online and blended models of learning. To this end, over 20 000 ICT devices have been procured. The reform addresses the risk of a digital divide by focusing on digital skills throughout the education system. The reform is also expected to ensure that all learners develop foundational skills they need to engage in the digital economy and to take advantage of the digital transition. Consequently, measure 2.7 is expected to have a lasting impact on the overall economic and social resilience and on employment, as it focusses on the strategic development of all levels of the education system and helps learners fully grasp the opportunities of the digital transition.

The plan is expected to support the digitalisation of public administration services. The use of digital technologies in the public sector in Ireland was above the EU average in 2020. To further advance the digitalisation of the public administration, the plan is expected to allow for greater interoperability of digital public services and to improve the quality of their provision to citizens, by introducing an online response option for the census of population (measure 2.4) and a suite of eHealth projects (measure 2.6). The online census measure aims at improving the capacity to collect and analyse data through the provision of a scalable online data collection capability for the Central Statistics Office. It also aims to reduce both the burden on survey respondents and the cost to the State of collecting data, while maintaining its quality and confidentiality. The suite of eHealth measures aims to support the digitalisation of the Irish healthcare system by enhancing interoperability between different digital systems. It includes: (i) the deployment of ePharmacy systems across hospitals in Ireland to ensure safety for patients, increase transparency in relation to the usage of medications and associated expenditure, and provide a foundation for ePrescribing tools; and (ii) the deployment of an integrated financial management system to foster financial and procurement efficiencies, improve transparency, and ultimately increase the capability of the finance function to support the health system.

The plan also supports digital capabilities and the deployment of advanced technologies. Currently there are disparate and inefficient Government server rooms and data centres, which are sub-optimal in terms of location, physical risk, and operational and cyber resilience. The plan provides for the construction of a high-quality and fit for purpose shared Government data centre enabling the migration of the servers and services to it (measure 2.1). The development of the shared Government data centre is ultimately expected to allow for greater interoperability of public services, improved quality of service and the implementation of the 'once only' principle[27]. Moreover, in terms of greening the digital sector, the measure aims to ensure the power usage effectiveness and may also constitute an innovative solution for energy efficiency, such as by reusing heat from the data centre to heat other buildings.

With regard to the digitalisation of businesses, Ireland's plan includes a measure to support the digitalisation of companies in Ireland, particularly of SMEs. Ireland performs very well on integrating digital technologies in businesses and SMEs continue to excel in e-commerce. However, SMEs lag in digitisation of business processes such as supply chain management, enterprise resource planning, and customer relationship management. To tackle the unbalanced digitalisation among companies, the plan includes the programme to drive digital transformation of companies, particularly SMEs, across all sectors in Ireland (measure 2.2). This measure aims to advance innovation, expand market presence, boost productivity and ultimately increase competitiveness. It includes the establishment of four Irish European digital innovation hubs (EDIHs) and the creation of clusters anchored in the EDIHs, which are expected to be an important facilitator of cross-border collaboration and therefore strengthen value chains. In case EDIHs are co-financed by the RRF and digital Europe programme, Ireland has provided guarantees that double funding will be avoided effectively.

The Irish plan contributes to addressing key digital challenges by incentivising research teams to develop viable practical innovative solutions. The digital dimension of the national grand challenge programme aims to address digital challenges such as (i) bridging the digital divide by ensuring that all members of society have access to new digital technologies and have the digital skills necessary to use them, (ii) using digital technologies to advance healthcare by personalising medicine and healthcare, driving uptake of preventative health mechanisms and increasing the availability of datasets and biobanks and allowing new research to take place into relevant health issues; and (iii) enhancing efficiency and productivity across the public services

[27]'Once only' principle is a concept that aims to ensure that State asks for information from the citizen once only and re-uses it as required in accordance with GDPR.

by maximising impact of artificial intelligence, machine learning, distributed ledger technology, and robotics.

Conclusion of the assessment under criterion 2.6 in Annex V to the RRF Regulation

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 includes several measures that are expected to lead to structural change in public administration. The plan is expected to allow greater interoperability of digital services and to improve quality of service in the public administration, notably through measures such as the provision of an online response option for the census of population. By enabling an online census response option, the measure aims at improving the capacity to capture and analyse data through the provision of a scalable online data collection capability for the Central Statistics Office. It also aims to reduce both the burden on survey respondents and the cost to the State of collecting data while maintaining its quality and confidentiality. Moreover, the introduction of the SME test is expected to help limit regulatory barrier to entrepreneurship, as policymakers are expected to consider whether any new legislation or regulation could create a burden for SMEs. The plan is also expected to strengthen anti-money laundering supervision, with a reinforcement of the capacity and resources of supervisors, supported by the publication of a sectoral risk assessment of trust or company service providers. In the area of housing, the plan establishes the Land Development Agency as a commercial semi state body to manage the State's own lands and develop new homes and regenerate under-utilised sites.

Several of the proposed reforms and investments have the potential to lead to structural change in healthcare. The plan aims to support the digitalisation of the healthcare system by several eHealth investments that can be expected to improve cost-effectiveness and accessibility. The suite of eHealth projects aims at supporting the digitalisation of the Irish healthcare system by enhancing interoperability between the digital systems. It also aims at building the digital infrastructure required to meet health demands and integrating health services, thereby further driving the digital transformation of the public service and of the healthcare system in particular. Consequently, the suite of eHealth measures are expected to have an impact that is sustained over time. The plan also includes reforms that are a step towards the implementation of Sláintecare – Ireland's long-term health system strategy – which, among other objectives, aims to achieve a modern universal single-tier healthcare system, with equal access to care services irrespective of ability to pay. The implementation of the Sláintecare consultant contract, marks the introduction of a 'public only' consultant contract that has the potential to address the current number of temporary and unfilled consultant posts. Moreover, the new contract supports a central aim of Sláintecare, which is to remove private practice from public hospitals, in order to ensure that public healthcare facilities are used for public patients only. In addition, the proposed reforms to expand the chronic disease management programme and operationalise community healthcare networks aim to deliver more care within the community rather than in hospitals, which may also improve accessibility.

The plan also aims to introduce some structural changes in education. It includes a programme to provide digital infrastructure and funding to schools and a reform addressing the digital divide and enhancing digital skills. The objective is to provide an education system that ensures all learners are equipped with appropriate skills for the digital age. The measure is expected to deliver high-speed broadband connectivity to approximately one third of primary schools (990 schools) that would otherwise remain on speeds of less than 100 Megabits per second by 2023. The proposed measure is expected to enable embedding the use of digital technologies in teaching and learning and contribute to the development of key digital skills. The measure also aims at enabling schools to support students most at risk of educational disadvantage through the provision of digital devices and software. This should mitigate and lessen the educational and social impact of the crisis to ensure an inclusive recovery.

In addition, the plan includes a reform aimed at supporting digital transformation of Irish education at all levels, enhancing digital skills and addressing the risk of a digital divide. The reform addresses the risk of digital divide by focusing on digital skills throughout the education system, thereby making it more resilient and better able to cope with disruptions. In addition, the reform supports employment through developing skills by equipping learners with the skills they need to engage in the digital economy and by providing opportunities for adults to reskill or upskill in line with the changing requirements of a more digitalised labour market. Consequently, the plan is expected to have a lasting impact on the overall economic and social resilience and employment, as it focuses on the strategic development of all levels of the education system and helps learners to fully grasp opportunities of the digital transition. Finally, the technological universities transformation fund has the potential to support changes to the higher education landscape and address risks of the digital divide, with capacity building at technological universities including an emphasis on the digital transition.

Structural change in policies

The plan includes two reforms that introduce structural changes to green policies. The entry into force of the Climate Action and Low Carbon Development (amendment) Bill is expected to require the adoption of sectoral emissions ceilings for relevant sectors of the economy that are expected to have a lasting impact on greenhouse gas reductions. Its enforcement is expected to be accompanied by a set of measures – first carbon budget programmes, annual update of the climate action plan, climate reporting assessing the policies implemented under the climate action plan – that are expected to secure a structural shift of the Irish economy towards decarbonisation. Second, a carbon tax, which is expected to increase on a yearly basis following a trajectory leading to a rate of EUR 100 per tonne of CO_2 emissions in 2030, has the potential to dis-incentivise in the long term the use of fossil fuels and encourage the use of greener fuels by industry and society.

Additional reforms are also likely to lead to structural changes in policy. Among other reforms to address features of the tax system that may facilitate aggressive tax planning, the plan commits to measures, including withholding taxes or non-deductibility, applying from 2024 to outbound payments to EU blacklisted, as well as zero-tax and no-tax jurisdictions. In the area of pensions, the plan includes a set of legislative measures that aim to simplify and harmonise elements of the Irish supplementary pension's landscape, by facilitating movement from occupational pension schemes to other pension plans, assisting in harmonising the tax treatment of contributions, and helping simplify the drawdown process.

Lasting impact

The implementation of the envisaged measures is expected to have a lasting impact. The plan is fully aligned and integrated into the wider government national economic and recovery plan, the review of the national development plan, and the forthcoming update of the climate action plan. This can help ensure that the implementation of the plan is well coordinated and lasting. The plan includes several measures that may help improve the productivity growth of domestic Irish firms by supporting their digitalisation and reducing barriers to investment, including regulatory barriers to entrepreneurship, housing affordability, and skill shortages. Skill-enhancing and innovation-related measures, in general, can be expected to have important impacts on GDP and employment that are expected to materialise fully in the longer run. Reforms aimed at the efficient management of vacant land have the potential to further support housing supply growth in the future. The lasting impact of measures supporting the green transition ranges from the transitory direct employment effects to the long-term effects of providing better environment for future generations. Public investment in energy efficiency and sustainable transport can also be expected to increase long-term productivity and potential GDP. Finally, the structural reforms in the plan can be expected to have a lasting impact. As set out in Box 2, halving the gap vis-à-vis best performers could raise Ireland GDP by up to 11% in 20 years' time.

Conclusion of the assessment under criterion 2.7 in Annex V to the RRF Regulation

Taking into consideration all reforms and investments envisaged by Ireland in its recovery and resilience plan, their implementation is expected to a large extent to bring about a structural change in the administration or in relevant institutions 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

Whereas the overall responsibility for the implementation of the plan rests with the Irish Government, a newly created Implementing Body within the Department of Public Expenditure and Reform is expected to be responsible for its strategic monitoring and management. It will be essential that the Implementing Body be put in a position to fully perform the role set out in the plan, which is to act as a single contact point for the Commission, ensure coordination among Irish authorities, report on progress on milestones and targets, oversee the implementation of control measures, provide technical and systems support, and communicate at national level to promote and publicise funding from the RRF. The Implementing Body is expected to report to the Minister for Public Expenditure and Reform. The plan does not explicitly specify whether the Implementing Body is also responsible for assuring that reporting on milestones and targets by accountable Departments and other bodies is correct.

The plan provides a description of the institutional actors in charge of the implementation of individual reforms and investments. The descriptions of reforms and investments refer to the institutional actors in charge of their implementation, while a comprehensive overview is provided. Responsibility for implementing specific measures mainly lies with Government Departments, but also other public entities, in particular in the case of investments. Although other public bodies may in some cases deliver aspects of a measure, accountability for the delivery of the entire measure and reporting is expected to lie with the accountable Department or another body, designated as accountable for a particular measure.

The plan states that accountable Departments and other bodies will be required to apply the Public Spending Code. An updated version of the Public Spending Code was published in December 2020 and contains a set of rules, procedures and guidance to ensure value for money in public expenditure across the Irish Public Service. It imposes obligations on organisations that spend public money at all stages of a project lifecycle. Accountable Departments and other bodies will be responsible for meeting all regulatory, monitoring and control requirements, providing reporting on their respective milestones and targets, reporting on costs (as appropriate), communication at measure level, and record keeping.

According to the plan, all responsible Departments and bodies should be represented in a Delivery Committee. The latter is expected to be established and meet at least quarterly. It is to be chaired by the Department of Public Expenditure and Reform and deputy co-chaired by the Department of Taoiseach and the Department of Finance, at senior official level. It should maintain ongoing oversight over the implementation of the plan and address issues as they arise. The Delivery Committee is expected to be tasked with driving project delivery and provide a forum for collaboration and coordination across the plan. Issues related both to the implementation of the plan and to the European Semester are expected to be subject to close cooperation between the Department of Public Expenditure and Reform, the Department of Taoiseach and the Department of Finance.

Milestones, targets and indicators

The milestones and targets of the Irish plan constitute an appropriate system for monitoring the plan's implementation. They are sufficiently clear and comprehensive to ensure that their completion can be traced and verified. They are relevant as they represent key steps of the measures and concrete achievements directly linked to their implementation. They reflect adequately the ambition of the plan while appearing realistic and under the control of the Irish authorities. The verification mechanisms, data collection and responsibilities described by the Irish authorities appear sufficiently robust to justify in an adequate manner the payment requests once the milestones and targets are completed. Milestones and targets also contain the appropriate requirements to ensure that the proposed climate tracking and digital tagging is correct and that compliance with 'do no significant harm' principle is confirmed.

Overall, the milestones and targets included in the plan reach a satisfactory balance, both in terms of their overall number (109 milestones and targets) and in terms of repartition between milestones (74) and targets (35). The milestones and targets in the plan are overall distributed throughout the RRF's lifetime in a balanced manner. There are in general more deliverables towards the end of the year (i.e. in the fourth quarter). The presence of four milestones and five targets in the third quarter of 2026 is a risk for the timely submission of the last payment request.

Overall organisational arrangements

The plan refers to its relatively small size and states that the administrative structures put in place for its delivery are commensurate. Although the national legal framework for implementation is not described in details, the plan refers to the Cabinet's decision on the formal approval of the plan on 28 May 2021 as the legal basis for allocating responsibilities for the attainment of specific milestones and targets to respective Departments and other bodies. It also specifies that a Decision of the Government of 22 December 2020 provides the basis for creating the Implementing Body.

Challenges relating to the proper staffing of the Implementing Body are expected to be addressed through the implementation of a dedicated milestone. The plan states that the Implementing Body will be given the necessary administrative capacity to carry out its functions. While it does not contain a clear assessment of staffing and resource needs, a specific milestone addresses this shortcoming. Attention should be continuously paid to ensuring that the objective of granting the Implementing Body with appropriate means to perform its tasks is met. At the same time, this should not be achieved to the detriment of the management of other Union funds.

Conclusion of the assessment under criterion 2.8 in Annex V to the RRF Regulation

The arrangements proposed by Ireland 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

Reasonable costs

Ireland provided documents to justify and explain the cost estimates and gave explanations on how those estimates were computed. The level of supporting evidence is not fully consistent throughout the plan. While for the most part the calculations and the methodology used were described, at least at high level, the level of details was not homogeneous. Explanations of costing for measures covering roughly half of the total cost were clearly understandable, while explanations on measures covering the other half of the total cost could have been more detailed. Further information on costing, providing a greater depth of calculations and verifiable sources, was requested following the submission of the plan and led overall to a higher level of assurance that estimated costs in the plan are reasonable. Overall, cost estimates have been deemed to a medium extent reasonable.

Plausible costs

The amount of the estimated total cost of the plan is in line with the nature and type of the envisaged reforms and investments. Ireland provided documents to substantiate the cost estimates. However, the link between the supporting documents and the amount proposed was not spelt out homogeneously across the plan. Nonetheless the plausibility of the estimates was considered sufficient for all the measures in plan, even if the justification and evidence provided by the Ireland on cost estimates covering roughly half of the total cost was not strong enough to be assessed as plausible 'to a high extent'. Overall, the cost estimates were deemed appropriate and seen as establishing the plausibility of the cost estimates to a medium extent.

No double Union financing

The individual components provide information about additional investments from other EU funds overall, when they are already known. A coordination mechanism has been put in place to ensure that double funding is avoided, which relies mainly on the exchange of information between responsible Departments and other bodies and on ex-post verifications. When complementarities with other EU funds are already identified, Ireland's plan mentions them, such as with the EU LIFE nature funding. Ireland is expected to take into account further complementarities when finalising the programming of other EU funds, such as the European regional development fund (ERDF) or the just transition fund. Double funding is expected to be avoided thanks to a verification procedure relying on regular reporting, cross-checking with EU fund managers and coordination with the work of cohesion policy programmes.

Commensurate and cost-efficient costs

Taking into account the economic and social impact of the plan, as well as the reasonability and plausibility of the cost assessment, it is considered that the plan is in line with the principle of cost-efficiency. The plan is fully aligned with, and integrated into, the government's wider national economic and recovery plan, the review of the national development plan, and the forthcoming update of the climate action plan. The plan includes several measures that are expected to lead to structural change in public administration, housing, healthcare, education, digitalisation and green policies.

Conclusion of the assessment under criterion 2.9 in Annex V to the RRF Regulation

The justification provided by Ireland 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 is commensurate to the expected national economic and social impact. Ireland 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

Ireland's recovery and resilience plan describes its implementation system. Accountable Departments and other bodies are responsible and accountable for implementing, delivering, and reporting on the individual investment and reform measures in the plan, in line with their respective areas of competence. This includes the responsibility for appropriate monitoring, controls, reporting of serious irregularities and double funding, and record keeping. A Delivery Committee, meeting at least quarterly, is expected to maintain ongoing oversight over the implementation of the recovery and resilience plan. All accountable Departments and other bodies with responsibility for investments or reforms as well as the Implementing Body are expected to be represented in the committee. The Delivery Committee should be tasked with driving project delivery and provide a forum for collaboration and coordination across the programme. The Implementing Body for the recovery and resilience plan, located in the Department of Public Expenditure and Reform and reporting directly to the Minister for Public Expenditure and Reform, is expected to be responsible for the strategic monitoring and management of the plan. The ERDF Audit Authority is due to be the Independent Audit Body for the National Recovery and Resilience Programme. It is expected to carry out audits before each payment request under the terms of EU Regulations and in compliance with international auditing standards.

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 Implementing Body is expected to prepare payment requests and the management declarations, and provide to the Commission the summary of audits prepared by the Independent Audit Body. The Independent Audit Body is expected to oversee implementation of control measures. The Implementing Body is expected to provide confirmation on the reliability of the data and the progress of the programme once the IT system has been put in place to collect, record and store all required data on each measure.

The Independent Audit Body and Implementing Body are both located within the same public body, the Department of Public Expenditure and Reform, but as they are in different divisions there is a clear separation of functions between the two bodies. The Independent Audit Body is also independent from the accountable Departments and public beneficiary bodies that will be involved in the RRF in Ireland. This is in line with the Unit's ERDF Audit Authority function for which the certifying authority is a separate function within the Department. The Independent Audit Body does not have any decision rights nor has any role in the management of the funds, which are managed, paid and monitored by the Implementing Body, accountable Departments or public beneficiary bodies. The Independent Audit Body has sole responsibility for the planning and selection of systems and operations to be audited and the manner in which the audits are conducted.

Adequacy of control systems and other relevant arrangements

The recovery and resilience plan states the procedures that are in place to ensure compliance with applicable Union and national law, throughout the implementation of all measures. The evidence, monitoring and reporting of irregularities is the responsibility of the accountable Departments and other bodies, which are expected to report to their management board if any risk of irregularities arises. The Implementing Body is responsible for overseeing the implementation of control measures. A memorandum of understanding is expected to be signed between the Implementing Body and each accountable Department and other body. It should set out, among other things: (i) audit and control requirements; (ii) document retention requirements; (iii) verification and reporting requirements for the audit trail; (iv) irregularities, fraud, conflict of interest, and double funding reporting requirements; (v) public procurement requirements; and (vi) monitoring and reporting requirements.

The Implementing Body is expected to ensure awareness of national legislation and guidance in place and organise training on preventing conflict of interest, corruption and fraud. The Implementing Body is expected to prevent corruption and promote the integrity measures set out in the Ethics Acts and the Lobbying Act 2015, and to ensure the statutory protections available for whistle-blowers. The Implementing Body is expected to share the Commission's guidance note on fraud risk assessment and effective and proportionate anti-fraud measures (EGESIF 14-0021) with the accountable Departments and other bodies, and provide training and guidance on fraud warning signs and indicators. Finally, the Implementing Body is expected to use the data mining tool as part of the verification procedures of the beneficiaries of funding from the RRF.

A reporting mechanism on the RRF information system is expected to be created to ensure final beneficiary details are adequately recorded to declare the absence of conflict of interest for the accountable Departments and other bodies. These accountable Departments are expected to report any irregularities, such as fraud, corruption, conflict of interest and double-funding, to the statutory authorities, as well as to complete a detailed report for the Implementing Body and the Independent Audit Body. When it is established that a serious irregularity has arisen, the relevant accountable Department or other body must ensure the suspension of all relevant activities until the matter has been resolved. A report detailing the incident and the steps taken to resolve it should be sent to the Implementing Body. In its audits, the Independent Audit Body is expected to report to the Audit Committee on its RRF audit activities, including notification of all critical findings or irregularities which would have the potential to reduce Ireland's drawdown of funds. It should be the Implementing Body's responsibility to respond appropriately and address any situations, which may objectively be perceived as a conflict of interest within an accountable Department or other body.

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 RRF. The RRF information system is expected to be a crucial tool in the detection and prevention of serious irregularities, as it will require accountable Departments and other bodies to record information related to the final recipients of the funds. The RRF information system is expected to be used to report identified conflict of interest by the accountable Departments to their management board. The Implementing Body is also expected to provide training and guidance on fraud warning signs and indicators and to use the data mining tool as part of the verification procedures of the beneficiaries of funding. Moreover, the plan states that the accountable Departments and other bodies should use the single data-mining tool made available by the Commission (ARACHNE), as it is an effective tool in the fight against fraud, and irregularities. On the procedures to recover the funds, the authorities have confirmed that any irregularity requiring the recovery of funds should be pursued by the accountable Department through the Irish Court system as appropriate.

There are adequate procedures in place for the avoidance of serious irregularities. Each Department's Accounting Officer is responsible for signing off the annual accounts of the relevant Department, office or body. To this end, the Accounting Officer is required to be satisfied that the Department's arrangements are adequate to prevent and detect serious irregularities and double funding. This is to ensure that all funds under their responsibility are handled correctly and to ensure their prompt and efficient recovery, when required following the detection of serious irregularities. Accounting Officers should also ensure that they have staff throughout their Department or office appropriately trained in the management of public funds.

In addition, the Accounting Officer must ensure that there are adequate financial management systems in place to support the proper administration of the Department's functions in an economic and efficient way. To prevent and detect fraud and corruption, the Implementing Body is expected to cooperate closely with the national Anti-Fraud Coordination Service (AFCOS), which in turn cooperates with the European Anti-Fraud Office (OLAF) on matters related to anti-fraud and protecting the EU budget.

A dedicated milestone is expected to ensure that a repository system be operational by the time of the first payment request. The RRF information system is expected to store data on final beneficiaries, contractors, sub-contractors, and beneficial owners, and a list of measures for the implementation of reforms and investments under the recovery and resilience plan. The Commission needs reassurance that a repository system for recording and storing and making available all relevant data related to the implementation of the plan – the achievement of milestones and targets, data on final recipient, contractors, subcontractors and beneficial owners – be operational by the time the first payment request is made. To ensure its development, Ireland is expected to submit a dedicated audit report confirming the effectiveness of the functionalities of the repository system before the first payment request. This should be implemented through a dedicated milestone.

Adequacy of arrangements to avoid double EU funding

The avoidance, detection and prevention of double funding is expected to be ensured at all stages of the projects' lifecycle, through procedures identified in the recovery and resilience plan. First, as a prerequisite to funding, accountable Departments and other bodies are required to record information related to the final recipients of the funds in the RRF information system. Accountable Departments and other bodies must report on a six monthly basis on all sources of funding. This is expected to be done through an electronic reporting structure via the stand-alone RRF information system, which is under development and subject to a dedicated milestone. Given the small number of measures included in the plan based on which payment requests are expected to be submitted each year, the Irish authorities believe it will be relatively straightforward to generate a systems report, providing detail on key information fields such as project name, beneficiary, date of project. The information in the report should be used to conduct a search of the eCohesion system. Another key element is expected to be the regular bilateral communications with all other EU fund managers, who should be provided with the above-mentioned report on funding sources. Regarding a separation of funding streams, the plan includes an initial analysis of the priorities and possible complementarities of the RRF funding with other EU funding streams. Coordination should be ensured through continued meetings of fund managers during programme development and delivery. In addition, the Implementing Body is expected to be a member of the Partnership Process Steering Group, which guides and advises on the programming of all cohesion policy programmes. The Independent Audit Body is expected to contact the ESI Fund Audit Authorities to check that expenditure items being funded by the RRF have not been subject to claims from other EU Cohesion Funds.

The arrangements put in place to avoid double funding from the Facility and other Union programmes are sufficient and adequate in their description. The RRF information system is expected to allow for crosschecking and consolidation of other possible data sources related to the EU funding with the sixteen RRF investment measures. It should also allow coordination with other EU fund managers. Detailed records and supporting documents are expected to be kept at the appropriate management level for each project, thus ensuring an adequate audit trail for the prevention, detection and correction of serious irregularities, including double funding. This is expected to be enabled through the RRF information system, where evidence will be held on the achievement of the milestones and targets for each individual project.

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. Overall responsibility for the implementation of Ireland's recovery and resilience plan rests with Government. The Cabinet formally approved the plan on 28 May 2021, and allocated responsibility for the attainment of specific milestones and targets with the lead Department for each of the investment or reforms commitments. Additionally, the Decision of the Government on 22 December 2021 established the Implementing Body for the National Recovery and Resilience Plan, which is located in the Department of Public Expenditure and Reform.

The Irish Government has designated the Internal and EU Audit Unit of the Department of Public Expenditure and Reform as the Independent Audit Body for Ireland's recovery and resilience plan. It should comprise an Audit Manager and two auditors allocated to RRF systems and operations audits as from 2022. In addition, the Head of Unit should allocate approximately 25% of his time to development and oversight of the RRF audits.

Ireland indicated that the Implementing Body is expected to have the necessary administrative capacity to carry out its functions, but no further detail has been provided. The detailed description of the organisation structure of the Implementing Body is still needed. Additionally, adequate staffing of the audit bodies, both for the ESIF funds and for the RRF, is required to avoid any risk that the audit functions for all EU funds be understaffed. **This is addressed through a dedicated milestone**, aimed at ensuring the administrative capacity of the Implementing Body and guaranteeing the administrative capacity for the audit body.

The chapter on audit and control gives a satisfactory description of the arrangements for the implementation and control of the plan in Ireland, subject to the achievement of two milestones. The chapter is detailed and gives the Commission reasonable assurance that there is a sound structure in place to monitor the allocated funds from the RRF.

Conclusion of the assessment under criterion 2.10 in Annex V to the RRF Regulation

The arrangements proposed by Ireland 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 in due time, through the dedicated milestones. 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 reforms and investments in each of the individual components are coherent and targeted to the same objectives. The plan consists of three components, each of which contains a set of measures that are centred on a clear objective: (i) the green transition for the first component, (ii) the digital transition for the second component, and (iii) social and economic recovery and job creation for the third component. By way of illustration, the second component covers measures supporting the digital transition and includes a set of measures that aim at digitising both government and businesses, as well as improving the digital skills of the population, thus aiming at bridging the digital divide.

The measures in each of the individual components are mutually reinforcing, as investments are accompanied by reforms that aim to resolve structural underlying challenges. The investments in the green component are reinforced by two key reforms. The first reform, the Climate Action and Low Carbon Development Bill, strengthens the governance of the State's climate objectives. The second reform, the carbon tax increase, provides an incentive for decarbonisation with annual rate increases. In the digital component, the investments in broadband connectivity and ICT infrastructure for schools are reinforced by reform measures that aim to strengthen digital education and skills in general. In the social and economic recovery and job creation component, the measures are primarily mutually reinforcing in supporting social inclusion.

Complementarity of measures

The components pursue complementary aims. In general, the components are aligned with the Irish Government's broader recovery efforts. The plan also has a strong forward-looking focus on the green and digital transitions that is reflected in all three components – including in the third component (Social and economic recovery and job creation). The third component, by way of illustration, includes measures that are expected to support the development of green and digital skills in the workforce. As such, the components pursue complementary aims, both in the shorter run to support the broader recovery effort and in the longer run to facilitate the green and digital transitions.

Measures in different components are expected to complement one another. By way of illustration, the SOLAS recovery skills response programme (component 3) aims at offering skills training in support of national retrofitting targets, while the measure on derisking a low-cost residential retrofit loan scheme (component 1) aims to offer loan guarantees to incentivise retrofitting for energy efficiency upgrades. A second example is the more indirect complementarity of the SME test (component 3) and the programme to drive digital transformation of enterprise, in particular SMEs (component 2), both of which may help address the productivity challenge faced by Irish firms. A third example are the eHealth investments (component 2) and healthcare reforms (component 3), which share the aim to improve the cost-effectiveness and accessibility of healthcare in Ireland.

There is an adequate balance between investments in different territories. A few of the investments are territorially focused outside the Dublin and Cork areas and can be expected to reduce disparities between different territories. In order to promote wider coherence across instruments, notably with the European cohesion policy funds, a balanced territorial allocation of resources is encouraged.

Conclusion of the assessment under criterion 2.11 in Annex V to the RRF Regulation

Taking into consideration the qualitative assessment of all components of Ireland'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.

ANNEX: CLIMATE TRACKING AND DIGITAL TAGGING TABLE[28]

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

Measure ID	(Sub-)Measure name	Budget (EUR m)	Climate		Digital	
			Int. Field	Coeff. %	Int. Field	Coeff. %
1.1	Investment: 1.1 Derisking a low cost residential retrofit loan scheme	30	025bis	100%		
1.2	Investment: 1.2 Accelerate the decarbonisation of the enterprise sector	30	047bis	40%		
1.2	Investment: 1.2 Accelerate the decarbonisation of the enterprise sector	25	047	40%		
1.3	Investment: 1.3 Public sector buildings' energy retrofit programme	60	026bis	100%		
1.4	Investment: 1.4 Enable future electrification through targeted investment in Cork commuter rail	164	069bis	100%		
1.5 - 1	Investment: 1.5 National grand challenge programme - green	50	022	100%		
1.5 - 2	Investment: 1.5 National grand challenge programme - digital	21			009bis	100%
1.6	Investment: 1.6 Enhanced rehabilitation of peatlands	108	050	40%		
2.1	Investment: 2.1 Development of a shared Government data centre	39	055bis	40%	055bis	100%
2.2	Investment: 2.2 Programme to drive the digital transformation of enterprise in Ireland	85			010	100%
2.3	Investment: 2.3 Programme to provide digital infrastructure and funding to schools	64			012	100%
2.4	Investment: 2.4 Provision of an online response option for the census of population	10			011	100%
2.5	Investment: 2.5 Using 5G technologies to drive a greener more innovative Ireland	19			054bis	100%
2.6	Investment: 2.6 Suite of eHealth projects	75			095	100%

[28] While the total cost of the Ireland's recovery and resilience plan exceeds the total allocation of non-repayable financial support to Ireland, Ireland 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.

Measure ID	(Sub-)Measure name	Budget (EUR m)	Climate		Digital	
			Int. Field	Coeff. %	Int. Field	Coeff. %
3.2	Investment: 3.2 SOLAS recovery skills response programme - green skills action programme	29	01	100%		