EUROPEAN
COMMISSION

Brussels, 29.3.2022
SWD(2022) 102 final

COMMISSION STAFF WORKING DOCUMENT

Analysis of the recovery and resilience plan of Sweden

Accompanying the document

Proposal for a COUNCIL IMPLEMENTING DECISION

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

{COM(2022) 152 final}

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1. EXECUTIVE SUMMARY

The COVID-19 pandemic has had a significant impact on the Swedish society and its economy although other Member States have been hit much harder. Sweden's economy contracted by 2,9% year-on-year in 2020, with private consumption experiencing the largest decline. From the beginning of 2021, a strong recovery started, driven by private consumption and exports. With the pandemic receding somewhat and as policy support remained in place, real GDP grew by 4,8% in 2021. Already in the second quarter of 2021, Sweden's economy had surpassed the pre-pandemic level. The existing macroeconomic imbalances have remained with house prices and private debt further increasing.

An unprecedented policy response supported the economy. The budget balance went from a surplus of 0,6% of GDP in 2019 to a deficit of 2,8% in 2020. Several amending budgets contained measures addressing the fall-out from the crisis and the budget for 2021 already included response measures to be funded through the Recovery and Resilience Facility (RRF). The direct fiscal support reached around 3,5% of GDP in 2020 and around 2,5% of GDP in 2021, while liquidity and guarantee measures amounted to around 19% of GDP for both years combined. Public debt increased from 35% of GDP in 2019 to 39,7% in 2020.

Sweden's recovery and resilience plan amounts to EUR 3.3 billion. Sweden has requested only the non-repayable financial support under the RRF. This represents some 0,7% of 2019 GDP. The plan is structured along five components aimed at tackling Sweden's structural challenges, which the COVID-19 crisis exacerbated. Measures included in the plan complement the national economic measures introduced by Sweden in response to the COVID-19 pandemic and the economic fall-out and are consistent with the 2021 National Reform Programme. The plan consists of 27 measures (12 investments and 15 reforms).

The plan addresses a significant subset of structural challenges as identified in the relevant country-specific recommendations addressed to Sweden by the Council in 2019 and in 2020. It introduces reforms and investments to support the green and digital transitions, to increase the resilience of the health care system, to reduce the risk of money laundering, to lift the education and skills level as well as to strengthen research, development and innovation. The CSR related to the macroeconomic imbalances due to overvalued housing prices and high private indebtedness has only been addressed in a partly satisfactory manner.

Sweden's recovery and resilience plan covers comprehensively the six policy pillars as referred to in Article 3 of Regulation (EU) 2021/241, structuring the scope of application of the Recovery and Resilience Facility, with an appropriate overall balance between pillars. The plan follows a comprehensive approach to support recovery and potential growth, while improving socio-economic and institutional resilience. The plan explains in detail how its five components address the six pillars, focussing on the green transition, digital transition, human capital, as well as enhancing the broad resilience of the Swedish economy, in particular through tackling demographic challenges, ensuring the integrity of the financial system, and improving the functioning of the housing market.

The reforms and investments included in the plan can be expected to significantly contribute to the green transition. Overall, 44,4% of the recovery and resilience plan's total allocation contribute to the climate objectives. The climate measures are in line with the challenges identified in the National Energy and Climate Plan 2021-2030 and are expected to contribute to the 2030 energy and climate targets. The plan expands on existing efforts within the national carbon pricing framework through investments to decarbonise the industrial sector ('Industry Leap'), investments in local and regional projects to reduce greenhouse gas (GHG) emissions ('Climate Leap'), energy efficiency in buildings, investments in sustainable transport, as well as reforms increasing the price of carbon emissions and raising the renewable share in transport fuels. All measures in the Swedish plan have passed the ex-ante assessment of the 'do no significant harm' principle.

The digital transition is expected to be accelerated through the plan's measures. Overall, 20,5% of the recovery and resilience plan's total allocation contribute to digital objectives. The planned expansion of broadband is expected to further increase high-speed internet access whereas the government's common digital infrastructure should accelerate the public services' digital transition. This is complemented by investments in vocational and higher education, with a particular focus on digital skills to meet the labour market needs of the future. The plan also incentivises the use of smart energy systems as part of building renovations, thereby making the best use of the synergies between the green and digital transition.

The reforms and investments in the plan are expected to have lasting socio-economic impacts. Effects of reforms should contribute positively to higher employment levels, improved human capital formation and an extension of working life. Further, through competence development and labour market inclusion, the plan contributes to improving social cohesion and inclusion. Support to the roll-out of broadband in rural areas will help ensure that all citizens have access to high-speed connectivity and, thus, foster territorial cohesion. The implementation of the plan's measures is expected to foster structural change in the economy. The prolongation of working life through adjusting the age limits in social security and tax systems should have a lasting impact on public finance sustainability and economic performance.

The implementation of the plan will be monitored by the Swedish Ministry of Finance. Appropriate arrangements have been or will be put in place conditional on meeting the milestones setting out the responsibilities of ministries and agencies in charge of the implementation, monitoring, and reporting of the measures.

The milestones and targets of the Swedish plan constitute an appropriate system for monitoring the plan's implementation. The monitoring indicators are sufficiently clear and comprehensive to ensure that their completion can be traced and verified. The milestones and targets represent the key elements of the measures and as such can be considered relevant for their implementation. They reflect adequately the overall level of ambition of the plan and appear realistic. The verification mechanisms, data collection, and responsibilities described by the Swedish authorities appear sufficiently robust to justify adequately the disbursement requests once the milestones and targets are completed. The number of milestones and targets appears commensurate to the size of the reform and investment package.

Based on the assessment of individual cost estimates and related supporting documents, the estimated total cost of the plan appears to be reasonable and plausible to a medium extent. In the plan, the large majority of the individual cost estimates are assessed to be reasonable to a high extent because the calculations behind the cost estimate are comprehensible and based on sound underlying assumptions. The majority of cost estimates in the plan are deemed plausible to a high extent because the cost estimates are substantiated by reference costs for the key cost drivers, which are in turn supported by clear evidence and in line with comparable reforms or investments. However, for some measures the calculations of and/or the link between the cost and the justification thereof is not entirely clear, precluding a rating of 'A' for costing at the plan level. Overall, the amount of the estimated total cost of the plan is commensurate to the expected national economic and social impact and is in line with the principle of cost-efficiency.

The plan includes adequate audit and control arrangements. The arrangements 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 conditional on the completion of predefined milestones prior to the submission of the first payment request.

The overall strategy and the measures contained in the plan are coherent. The five components form a coherent package of investments and reforms, supporting the objectives to stimulate the recovery of the economy and foster sustainable and inclusive growth, to contribute to the twin transition and to increase resilience. Within each component, measures support and reinforce each other and reforms and investments across components are well aligned.

Table 1: **Summary of the Swedish recovery and resilience plan assessment for the 11 criteria set by the Recovery and Resilience Facility regulation**

(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

The Swedish economy has proved more resilient than the EU average during the COVID-19 pandemic. This is partly due to the strong macroeconomic starting position, but also reflected structural characteristics such as a favourable sectoral structure which, for instance, allowed large-scale teleworking and facilitated the operation of supply chains supporting total economic activity. In addition, in Sweden restrictions in response to the pandemic were less stringent than in several other EU Members States, while substantial and timely fiscal stimulus coupled with supportive measures by the monetary and macroprudential authorities helped cushion the pandemic-induced fall in economic activity and supported the recovery. Nevertheless, the initial impact of the pandemic led to a sharp contraction in real GDP in the second quarter of 2020 due to confinement measures, supply chain disruptions and the pandemic-related fall in trade volumes with major trading partners, whereas fixed capital formation and the housing market proved resilient. The subsequent recovery unfolded in 2021, driven by strong private consumption, investment and exports, with the time profile shaped by the easing of restrictions, extent of supply-chain disruptions, progress with vaccination, and the pace of improvement in the economic situation in major trading partner countries. In all, after a drop in real GDP of 2,9% in 2020, economic activity expanded by 4.8% in 2021, stronger than foreseen in the macroeconomic scenario outlined in the recovery and resilience plan (see Table 2). Real GDP is set to further expand by 3,8% in 2022 according to the Commission Winter Forecast 2022, in line with expected growth according to the macroeconomic scenario outlined in the plan. The fully fledged Commission Autumn Forecast 2021 (Table 2) expected a somewhat lower real GDP growth of 3,5% in 2022.

Table 2: Comparison of macroeconomic developments and forecasts

	2019	2020		2021		2022		2023		2024	2025	2026
	COM	COM	RRP	COM	RRP	COM	RRP	COM	RRP	RRP	RRP	RRP
Real GDP (% change)	2.0	-2.9	-2.8	3.9	3.2	3.5	3.8	1.7	1.9	1.6	n.a.	n.a.
Employment (% change)	0.6	-1.3	-1.3	0.4	0.3	1.7	1.9	1.0	1.7	0.6	n.a.	n.a.
Unemployment rate (%)	7.0	8.5	8.3	8.2	8.7	7.1	7.9	6.7	7.0	7.0	n.a.	n.a.
HICP inflation (% change)	1.7	0.7	0.7	2.4	1.5	1.9	1.2	1.1	1.6	1.9	n.a.	n.a.
General government balance (% of GDP)	0.6	-2.8	-3.1	-0.9	-4.5	0.3	-1.0	0.9	0.5	1.0	n.a.	n.a.
Gross debt ratio (% of GDP)	34.9	39.7	39.9	37.3	39.9	34.2	37.0	31.2	33.7	31.4	n.a.	n.a.

Source: Eurostat; Commission Autumn Forecast 2021 (COM); Recovery and resilience plan (RRP)
Note: In order to ensure comparable datasets for the macroeconomic scenarios, the table compares for 2021 and later the projections as specified in the Swedish RRP with the latest fully-fledged Commission forecast (i.e. the Commission Autumn Forecast 2021). In the meantime, 2021 outturn data have been published for GDP (4.8%) and HICP (2.7%). The Commission also published in the meantime the more limited Commission Winter Forecast 2022. References are made to relevant data in the text.

The Swedish government has put in place timely and appropriate measures to mitigate the negative economic and social impact of the crisis. Emergency measures included covering the costs of temporary unemployment and sick leave, fiscal support to cover turnover losses and fixed costs for firms and the self-employed, increased transfers to the regions and municipalities that are largely responsible for the provision of health care and social security coverage, as well as liquidity support and tax payment deferrals. The combined amount of direct fiscal support is estimated to be around 3½% of GDP in 2020 and around 2½% of GDP in 2021, while the liquidity and guarantee measures amounted to the equivalent of around 19% of GDP for both years combined. The combination of support offered by the pre-existing tax-benefit system and the emergency policy measures in response to the pandemic are estimated to have cushioned the impact of the pandemic in unemployment and households' income as well as on poverty and inequality to a significant degree.[1] In line with the relatively modest size of the plan, the estimated direct impact of fiscal support measures in the plan is relatively limited (at a cumulative 0,5% of GDP) and chiefly reflects direct-short term expenditure effects.

The macroeconomic scenario contained in Sweden's recovery and resilience plan expected a rebound of economic growth in 2021 following the COVID-19 induced contraction in 2020. The plan projects an increase in real GDP of 3,2% in 2021, picking up somewhat to 3,8% in 2022, before falling back to a more moderate rate of 1,9% in 2023 and 1,6% in 2024. According to the plan scenario, real GDP growth is driven by a recovery in private consumption and exports. Inflation is set to remain contained and stay between 1% and 2% in the plan's economic forecast.

Against this backdrop, the macroeconomic scenario expects unemployment to peak at 8,7% in 2021 before falling to 7,0% in 2026. The plan underlines that the COVID-induced unemployment and related income losses as an immediate consequence of the pandemic affected up to 1 million Swedish residents (around 10% of the population), in spite of extensive support measures. Persons already struggling to find employment before the pandemic like the low-skilled, young, and newcomers from non-EU countries face the highest risk of a deterioration in their position on the job market. The low-skilled and non-EU migrants also face the largest risk of social exclusion and poverty. While the negative impact of the pandemic on individuals could be substantial, the plan expects the overall increase in income inequality and long-term negative effects on overall skills levels to remain limited. This should be due to a combination of improved employment opportunities in the wake of the expected recovery and the effects of a range of supportive policy measures – which are broader than those included in the plan – aimed at mitigating not only negative employment and income effects but also at promoting education and training. For 2021, the plan expects that supporting measures for the economy reduced the unemployment rate by 1,3%. Employment is forecast to have grown slightly by 0,3% in 2021 and is expected to only revert back slowly to pre-crisis levels.

Sweden remains a relatively equal society, with income inequality set to remain below the EU average over the horizon covered by the plan. The share of people at risk of poverty or social exclusion (17,7% in 2020) is below the EU average (21,94%). However, vulnerable groups are more likely to be at risk of poverty or social exclusion, including non-EU born, children, low-skilled workers, and people with disabilities. The crisis is expected to further accentuate those discrepancies inter alia in light of a lack of affordable housing.

Government finances have been negatively impacted by the COVID-19 crisis. Nevertheless**,** the 2020 budget deficit of 2,8% of GDP was among the smallest in the EU. The plan does not present figures on fiscal aggregates over the full horizon it covers while the fiscal measures included in the plan form only a part of all support measures put in place by the authorities. After an increase in the debt-to-GDP ratio in the wake of the crisis due to the combined effect of shrinking

[1] 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.

GDP and fiscal stimulus, the Commission 2021 Autumn forecast expected the general government debt ratio to start falling still in 2021 as the recovery takes hold. The Commission services project debt to remain well below 60% of GDP in 2030.[2] Hence, Swedish public debt continues to be on a sustainable path.

Macroeconomic imbalances, chiefly rooted in high household debt and sharp increases in house prices, remain a risk. House prices accelerated significantly from the onset of the pandemic, including in the main urban areas where prices were already high. Credit to households continued to expand briskly, contributing to the household debt ratio rising further above prudential thresholds. Going forward, rising interest rates could put a strain on the finances of households that are exposed to high mortgage loans with variable interest rates. Policies implemented in recent years have not been sufficient to address these imbalances.

The plan specifies a number of risks to the macroeconomic scenario. The plan notes that the macroeconomic and fiscal outlook continues to be affected by high uncertainty related to the COVID-19 pandemic and its economic consequences. The downside risks identified include persistence of unemployment leading to reduced matching in the labour market and negative effects of lower risks appetite on investment and productivity growth. Upside risks include impulses from enhanced schooling, digitalisation and reforms to lengthen the active working life. On balance, risks are seen to be tilted to the upside.

Compared with the fully-fledged Autumn 2021 Commission forecast, the macroeconomic scenario in the plan is somewhat more pessimistic for 2021 and broadly in line for 2022.[3] Similar to the Plan, the Commission expected domestic demand to be the main growth engine behind the recovery, foreseeing a somewhat stronger rebound in 2021. The differences between the Commission Autumn 2021 forecast and the macroeconomic scenario underpinning the plan are due to a combination of differences in external assumptions, in the assessment of budgetary measures and their impact on economic agents, and also to different cut-off dates. Labour market projections in the plan are more cautious than in the Commission forecast, whereas the path for expected inflation is very similar, allowing for differences in external assumptions. **The macroeconomic scenario of the plan is cautious.** Since the submission of the plan, the Swedish authorities have revised their overall forecast in the direction of a stronger recovery, similar to upward revisions in the Winter 2022 Commission forecast, allowing for the inclusion of additional outturn data and updated forward-looking indicators.

[2] European Commission, Debt sustainability monitor 2020, Institutional Paper 143. February 2021. Brussels.

[3] Based on outturn data, Sweden's economy grew by 4,8% in 2021 better than expected by the projections in the plan at the date of submission and the comparable Commission Autumn 2021 forecast. The latest Commission Winter 2022 forecast has very similar real GDP growth compared to the plan for 2022 and 2023.

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

The Swedish economy is among the most advanced within the EU in terms of wealth, equal opportunities, care for the environment and innovative capacity. Nevertheless, challenges exist across all policy areas and they are intertwined.

Smart, sustainable and inclusive growth

Labour market challenges include the integration of low-skilled people, non-EU migrants and people with disabilities, as well as labour shortages and a widening skills gap. Skills mismatches, a long-standing issue, is expected to lead to continued labour shortages in a broad range of sectors (including, but not limited to education, health care, social work, ICT, industry and construction) in the coming years. The COVID-19 crisis has increased the risk of long-term unemployment for groups that were finding it difficult to get and remain in employment already pre-COVID. Reskilling and upskilling will be important to allow unemployed to find permanent employment.

Social and territorial cohesion

Further integration of foreign-born requires an integrated approach to social, educational and employment policies linked with access to services. Specific attention is necessary for the obstacles foreign-born women face. Non-EU born people are more exposed to the risk of poverty or social exclusion than on average in the EU and this risk has increased in recent years. The gender gap is wide for foreign-born women, due to both higher inactivity and unemployment. Better integrating foreign-born into the labour force would support productivity growth in the longer run, social cohesion and equality of opportunities.

Health, economic, social, and institutional resilience

Macroeconomic imbalances in the housing market and high private debt persist. Sweden has received repeated country-specific recommendations over the last years concerning the housing market, the risk of high household indebtedness linked to the mortgage interest deductibility, as well as the need to foster investment in housing and increase the efficiency of the housing market. Sweden is one of the very few EU countries with tax relief on the full amount of mortgage interest paid.

At the same time, there is a housing shortage, and in particular a lack of affordable housing. Despite the shortage, the number of people who are eligible for social housing, or who can receive housing benefits, is limited. Allowing more people access to housing benefits would potentially reduce homelessness and housing exclusion. It would also encourage more labour mobility and allow for people to move to a different location for studies/training. Reforming the rental market, while addressing incentives in the tax system favouring owner-occupation over renting, would increase economic resilience over the medium-term.

Sweden has specific weaknesses with respect to the risk of money laundering. Sweden has allocated more resources to the competent institutions, strengthening in particular the capacity of its Financial Supervisory Authority. However, the Authority's capacity is still low compared to the size of the Swedish financial sector. Challenges remain and the risk-based approach still needs to be fully implemented.

Sweden has a good, tax-funded and generally effective healthcare system with a strong focus on outpatient and long-term care. The total healthcare spending as a share of GDP is higher than the EU average (10,9%; EU average 9,9%). Nevertheless, the availability of medical personnel and coordination between different levels of care could be further improved. The COVID-19 pandemic has highlighted existing structural weaknesses, such as shortages of healthcare workers, coordination gaps between different entities of the health administration as well as different levels of care (including long-term care) and geographical imbalances in the distribution of health care services. Immediate issues have been effectively resolved in Sweden's crisis response. Nevertheless, in the medium term, Sweden could benefit from improving the availability, qualifications and working conditions of healthcare workers, especially care assistants and nurses, and from further development of eHealth solutions and IT systems for healthcare coordination.

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

The main challenges for Sweden in the education area are a separation of native- and foreign-born students in different schools (leading to an educational gap between these two groups) and a growing teacher shortage. The move to distance education due to the COVID-19 pandemic has also had a stronger negative effect on the foreign-born students, due to language problems and lack of computers, internet access and IT skills. In addition, the accessibility of digital learning resources, their use by teachers, and access to technical and educational support varied significantly across schools. These developments have come on top of existing structural shortcomings. About 20% of teachers are not formally qualified. The share is even higher, over 50%, among teachers under 30, while participation in the formal qualification programme is, at 5,1%, far lower than the EU average (EU-22: 14,7%)[4]. Teacher shortages are the most pressing in rural areas of northern Sweden, and unqualified teachers are more common in schools with a higher share of non-native born pupils.

Specific challenges related to policies for the next generation relate to labour market integration and housing affordability. With youth unemployment standing at 24% in December 2021, investments and reforms appear needed to support their job search, employment and bridge between education and the labour market. In addition, the housing shortage, especially in the segment of affordable housing and student housing, is posing a challenge to the younger generation.

2.3. Challenges related to the green and digital transition

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 shall contribute to achieving the 2050 climate neutrality objective, and the 2030 energy and climate targets, taking into account Member States' National Energy and Climate Plans. The measures

[4] OECD (2019), TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners, TALIS (http://www.oecd.org/education/talis/)

should also contribute to meeting environmental targets for waste, water, pollution control, sustainable mobility, biodiversity protection and restoration, marine and water resources, and support the transition to sustainable food systems as well as to a circular economy as appropriate, while ensuring that nobody is left behind.

Sweden has been able to combine sustained economic growth with lowering greenhouse gas emissions over a longer period. Between 1990 and 2019, Sweden's GHG emissions fell by 29% whilst its real GDP per capita increased by 54%. Sweden is among the EU Member States with the lowest GHG emissions per capita and is on course to meet its current EU 2030 targets under the Effort Sharing Regulation to reduce GHG emissions in sectors outside the EU's Emission Trading System by 40% from 2005 levels. However, Sweden's national objectives are even more ambitious: Sweden has set a national 2030 target to achieve at least a 50% reduction of GHG emissions in its effort sharing sectors compared to 2005. To reach its long-term domestic targets, Sweden would need to increase the annual rate of emission reductions.

Transport is a key target for emissions reduction. The sector accounted for 31% of the national greenhouse gas emissions in 2020. While emissions from the industry and domestic transport have decreased, domestic transport is lagging behind industry and remains the single most important source of carbon emissions. The aim is for emissions from domestic transport (aviation excluded) to decrease by at least 70% by 2030 compared to 2010.

Land use, land use change and forestry (LULUCF) is an important sector in Sweden due to its large forest area. The sector is a significant carbon sink and is considered an integral part of Sweden's climate strategy. It is also a key contributor to the economy, providing renewable energy sources, harvested wood products and other materials. The intensification of logging in Sweden has raised concerns for both the climate and biodiversity, in particular where logging may target old-growth forests.

Greenhouse gas emissions vary widely regionally, mainly due to differences in the business structure. The steel industry in Upper Norrland is an important industry and emitter, but is in a transformation process to become fossil-free by 2035. Fossil carbon dioxide emissions from the steel industry mainly come from the production process and internal transport, leaving further scope for the rollout of innovative and low-emission processes (e.g. hydrogen).

Renewable share

Sweden has the highest share of renewables in energy consumption in the EU. The share of renewable resources in final energy consumption increased from 41% in 2005 to 60,1% in 2020.

Biofuels are the largest renewable source and used mostly for heating, whereas hydropower is the dominant renewable source for electricity generation. Hydropower is not expected to provide additional renewable energy sources, but Sweden will rather expand other renewable technologies to increase its share of renewable energy and to contribute to the EU's 2030 target for renewable energy[5] by reaching 65% of renewable energy.

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[5] As a share of gross final energy consumption.

Energy efficiency

Sweden has presented a comprehensive set of energy efficiency measures for the buildings sector in its national long-term renovation strategy. Implementing this strategy will go a long way in increasing energy efficiency, but as the final energy consumption in 2020 was higher than the target value, more efforts are needed to reach energy efficiency targets. In addition, Sweden plans to carry out the renovation of its building stock in stages, depending on the age of the building. In particular, priority would need to be given to improve the energy efficiency of the worst performing buildings and to reduce energy poverty[6].

Sweden intends to be carbon-neutral by 2045 and have net zero emissions thereafter. Achieving this objective will require sizeable investments, notably in the buildings sector, in infrastructure for the electrification of road transport and in innovative low-carbon technology in energy-intensive industry sectors, such as steel[7]. On the government's initiative, several energy-intensive sectors of the industry have come forward with roadmaps for becoming climate neutral by 2045 while also increasing their competitiveness.

Environment

In July 2020, the Swedish government adopted a national strategy for a circular economy. It sets out the direction and ambition for a long-term and sustainable transition of the Swedish society. The strategy fits in with the country's goal of becoming the world's first fossil-free country. It focuses on sustainable production and sustainable ways of consuming.

The shift from a linear to a circular economy model should promote the use of safe, non-polluting and sustainable materials and processes. Sweden is advanced as regards waste management, but more effort is needed to comply with EU recycling targets for the post-2020 period, for example through lowering energy recovery from waste, shifting municipal waste away from incineration and towards recycling. Construction and renovation initiatives in Sweden need to further encourage material efficiency and life-cycle processes.

To enhance its overall good environmental performance, Sweden needs to improve air and water quality and support biodiversity related measures. These measures concern habitats restoration (grassland, wetlands, marine ecosystems), as these areas still remain challenging from environmental and human health perspective.

Table 3 below gives an overview of Sweden'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.

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[6] Castellazzi, L., Zangheri, P., Paci, D., Economidou, M., Labanca, N., Ribeiro Serrenho, T., Zancanella, P. and Broc, J., Assessment of second long-term renovation strategies under the Energy Efficiency Directive, 2019, JRC.

[7] Economidou, M., Ringel, M., Valentova, M., Zancanella, P., Tsemekidi Tzeiranak, S., Zangheri, P., Paci, D., Ribeiro Serrenho, T., Palermo, V. and Bertoldi, P., National Energy and Climate Plans for 2021-2030 under the EU Energy Union, 2020, JRC122862. See also Tsemekidi-Tzeiranaki, S., Paci, D., Cuniberti, B., Economidou, M. and Bertoldi, P., Analysis of the Annual Reports 2020 under the Energy Efficiency Directive, 2020, JRC122742.

Table 3: Overview of Sweden's energy and climate objectives, targets and contributions

	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 legislation (%)	-29	-17	-40	More ambitious National target of at least -50
	National target/contribution for renewable energy: Share of energy from renewable sources in gross final consumption of energy (%)	60.1	49	65	Sufficiently ambitious (Above RES Formula level of 64)
	National contribution for energy efficiency:				
	Primary energy consumption (Mtoe)	41.7	43.4	40.2	Modest ambition
	Final energy consumption (Mtoe)	30.9	30.3	29.7	Modest ambition
	Level of electricity interconnectivity (%)	26	28	27	N/A

Note: Preliminary data for 2020 indicate that Sweden's GHG emissions under the Effort Sharing legislation dropped by 29% in 2020 compared to 2005.

Sources: Assessment of the final national energy and climate plan of Sweden, SWD-(2020) 926 final and Eurostat data from specific years, Commission staff working document accompanying the Climate Action Progress Report 2021, SWD(2021) 298 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 administration, public services, and the justice and health systems). The objective of the measures in the plan should be to improve not only the competitiveness, but also the resilience, agility and security of companies and public actors, all while ensuring inclusiveness.

Sweden is one of the top-performing EU countries as regards the digital dimension according to the European Commission's Digital Economy and Society Index (DESI). 72% of the population has at least basic digital skills and 46% has above basic digital skills. [8] In 2017, the Swedish government adopted the Digitalisation Strategy, which sets out the pathway for Sweden to become the world leader in harnessing the opportunities offered by digitisation in skills, security, innovation and infrastructure.

[8] European Commission (2021), Digital Economy and Society Index (DESI) 2021.

Sweden's human capital is one of its strongest competitive advantages, but the country needs to address the unmet demand for digital experts to keep its technological edge. Irrespective of a high digital skill level among the broad population and a high number of information and communication technology (ICT) specialists (7,5% of individuals), 55,1% of enterprises who tried to recruit ICT specialists report hard-to-fill vacancies (EU average: 55,4%), constraining growth and productivity. Additional efforts and investments are needed to allow higher education institutions to attract more students, offer new courses and further increase the number of graduates in science, engineering and computing, to further improve Sweden's top standing in innovation and digital technologies.

Sweden is also a front-runner for ultrafast connectivity in Europe, but still faces challenges in the roll-out of broadband and coverage of remaining sparsely populated areas, as well as the timely assignment of 5G bands. To reach its goal of 98% coverage of high-speed internet access by 2025, Sweden would need to address the difficulties of ensuring roll-out and coverage of the remaining sparsely populated areas. To this end, an existing public funding scheme will continue to support projects deploying high-speed broadband infrastructure with a speed of at least 1 Gbps in areas where there is no existing Next Generation Access (NGA) network or where no NGA deployment is planned within 3 years. The successful deployment of 5G in Sweden depends on the timely availability and assignment of the 5G pioneer bands. In January 2021, the Post and Telecom Authority successfully resumed and completed the 5G spectrum auction through which it awarded frequencies. This is an important step for the 5G rollout in Sweden. It will also have synergies with Sweden's intention to improve connectivity on trains, which demand stable connectivity to improve conditions for telework and commuting.

The public sector is digitally mature, but there is room for improvement on open data and the reuse of public data. E-government services are widespread in Sweden, with 88% of internet users able to submit forms online in 2020. E-identification is also prevalent. However, in 2021 the country was for the first time over the EU average with 84% of the maximum score on open data. Many initiatives in the digitalisation strategy aim at harnessing the availability of open data and increasing the innovative use of digital technologies to create value-adding services both to the public and to businesses. The Agency for Digital Government (DIGG), which was established in 2018, has together with other agencies been assigned several tasks related to open data and the use of new technologies. DIGG has now been tasked to coordinate and support digitisation across the public sector in order to make it more efficient and fit for purpose.

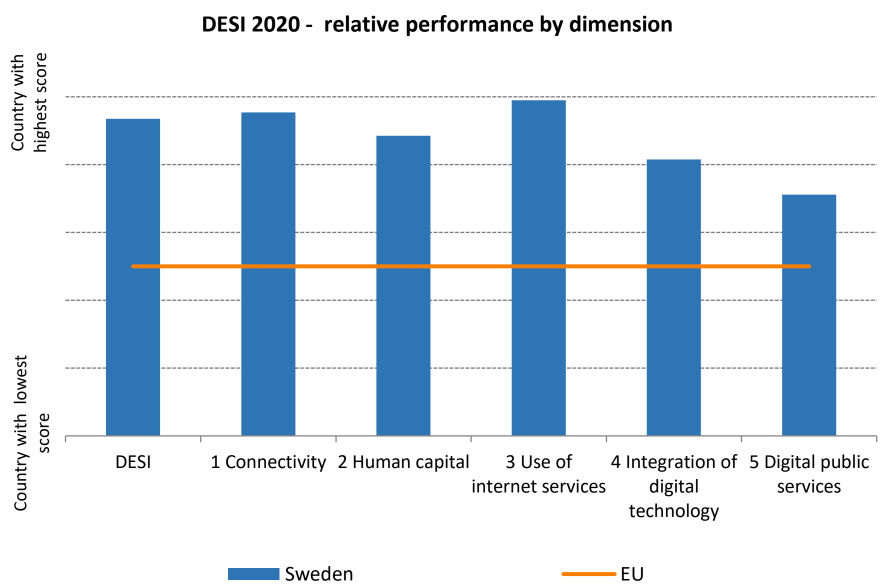
Sweden encourages SMEs to embrace new technologies faster. The Swedish smart industry strategy supports the digital transformation of SMEs. Although the share of Swedish firms planning high-growth as a result of increased digitalisation is above the EU average[9], overall SMEs need to

[9] Benedetti Fasil, C, Domnick, C, Fako, P, Flachenecker, F., Gavigan, J. P., Janiri, M. L., del Rio, J-C, Stamenov, B. and Testa, G., High Growth Enterprises in the COVID-19 Crisis Context demographics, environmental innovations, digitalization, finance and policy measures, European Commission, JRC, 2021.

become more aware of the advantages of digital technologies and speed up their adoption as they are behind large enterprises when it comes to digital intensity and ICT skills of their staff.[10] Innovative solutions and upskilling their workforce would enable Swedish SMEs to participate to the fullest in the Single Market.

Investments in (sustainable) technologies can enhance Sweden's competitiveness during the green transition, including expanded innovative solutions in energy, production and distribution. Starting from 2021, Sweden is strengthening research and innovation into digitalisation until 2024 with the Research and Innovation Bill. The bill, which is financed by the national budget outside the RRP, indicates the cross-cutting societal challenges on which research and innovation in Sweden will focus. These are climate and environment, health and welfare, digitalisation, skills supply and working life, and a democratic and empowered society. The R&I-related digitisation efforts include research on the societal implications of digitalisation, an innovation programme in the fields of business and AI, research into information and cybersecurity, and collaborative programmes in the field of digitalisation, as well as e-infrastructure investments.

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



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

[10] According to DESI, 75% of large enterprises have high levels of digital intensity compared to 25% of SMEs in 2020. Moreover, only 31% of SMEs provide training for their staff to develop or upgrade their ICT skills compared to 79% in large companies. Although not directly addressed at scale in the digitalisation strategy, SMEs stand to benefit both from the use of innovative solutions and from upskilling their workforce. SMEs could also benefit more from selling online and cross border, an area where Swedish SMEs are behind other countries. 31% of SMEs sell online and only 10% sell cross border.

Box 1: Progress towards the Sustainable Development Goals

Overview table of the overlap between the Sustainable Development Goals and the four dimensions underpinning the recovery and resilience plan.

The objectives of the Sustainable Development Goals (SDGs) are integrated in the European Semester since the 2020 cycle. This provides a strong commitment towards sustainability in coordination of economic and employment policies in the EU. In that respect, this section outlines Sweden'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 Facility could further accelerate the progress on the SDGs.

Green Transition

Sweden performs well on many SDGs related to the green transition. For instance, Sweden is among the EU Member States with the lowest per capita net greenhouse gas (GHG) emissions (1.2 tonnes in 2020), well below the EU average (7 tonnes). The share of renewable energy in gross final energy consumption is relatively high in Sweden (60,1% in 2020), compared to the EU-average (22,1%). Further reducing the carbon-intensity of the Swedish economy would lead to progress on SDG 7 'Affordable and clean energy' and SDG 13 'Climate action'.

Fairness

Sweden shows generally high rankings on indicators assessing the fairness of society and economy. For instance, Sweden performs well with respect to SDG 1 'No poverty'. The rate of people at risk of poverty or social exclusion (17,7% in 2020) is below EU average (21,9%). Sweden is also among the best performing Member States on ‘Good health and well-being’ (SDG 3), while its performance has deteriorated recently on ‘Reduced inequalities’ (SDG 10). Sweden shows good performance on ‘Quality education’ (SDG 4), with comparably low rates of young people neither in employment nor training/education, and high rates of adult participation in learning. The gender employment gap (SDG 5) is very low in Sweden.

Digital transition and productivity

Sweden performs well what concerns ‘Decent work and economic growth’ (SDG 8) and ‘Industry, innovation, and infrastructure’ (SDG 9). With 3,5% of GDP allocated to R&D in 2020, Sweden has the highest R&D spending in the EU. The investment share is also higher than the EU average (24,8% in 2020, compared to 22,3%). By intensifying policy efforts, Sweden could make further progress on the SDGs related to the digital transition and productivity.

Macroeconomic stability

Sweden performs very well on SDG 8 and achieves good scores on indicators measuring ‘peace, justice, and strong institutions’ (SDG 16), although some indicators relating to ‘peace and personal security’ have declined slightly.

3. OBJECTIVES, STRUCTURE AND GOVERNANCE OF THE PLAN

3.1. Overall strategy of the plan

The plan is part of the country’s large restart package to support the socio-economic recovery and long-term development after the COVID-19 pandemic. The fiscal support measures in the package, contained in the 2020, 2021 and 2022 budgets and budget amendments, aims to foster a climate-friendly and highly digitalised society, supporting inclusion and facilitating people to get back into employment.

Reforms and investments should accelerate the green transition and digitalisation supporting lasting structural improvements. Funds allocated in the plan, which are in addition to the national funds, will help stimulate the economy and support jobs and companies in the short term while helping speed up the green transition, digitalisation, social priorities and regional cohesion in the medium to long term.

The plan is made up of five components, focussing on (i) the green recovery, (ii) education and transition, (iii) better conditions for addressing demographic challenges, (iv) broadband expansion and digitalisation of public administration, and (v) investment for growth and housing. The plan has a strong focus on the green transition, with dedicated reforms and investments aimed at inter alia carbon-intensive sectors, such as transport and industry, thus contributing to the national climate target for Sweden to have no net emissions of greenhouse gases by 2045. A dedicated component contains measures to improve employment opportunities by increasing human capital among the unemployed, educating and training the labour force, complemented by a set of reforms to increase flexibility in the labour market and increase the transition into employment. The plan also aims at addressing demographic challenges and securing the integrity of the financial system, with reforms in the health sector, the pension system and the fight against money laundering. A digital component provides for the roll out of high-speed broadband in rural and sparsely populated areas as well as further digitalisation of the Swedish public administration. Finally, the plan has also dedicated measures to improve housing supply and foster investments in the housing market.

The plan does not include cross-border or multi-country projects.

The reforms and investments in the plan are well in line with the Facility's objectives to promote cohesion, by including fostering growth and employment, strengthening social and territorial cohesion and supporting the green and digital transformation.

Table 4: Overview of the plan, its components and associated estimated costs

Component	Costs (EUR million)
I: Green recovery	1552
II: Education and transition	504
III: Better conditions for addressing demographic challenges	452
IV: Broadband expansion and digitalisation of public administration	485
V: Investment for growth and housing	296

3.2. Implementation aspects of the plan

Governance

The Ministry of Finance will oversee coordination, monitoring and reporting on the plan's implementation. Sweden's recovery and resilience plan is based on goals and instruments decided by the Parliament. The Riksdag's Committee on Finance was on two occasions, on 6 and 27 April 2021, informed by the Government about the design of the plan. The Ministry of Finance ensures compliance with Union law, monitors the full and timely fulfilment of the plan's strategic and operational objectives through milestones and targets, prepares and submits requests for payment based on the necessary information from the competent authorities and reports to the Commission, ensures the evaluation of the results of the plan and the dissemination of outputs; and provides the competent authorities with technical assistance. The Ministry of Finance will also be responsible for coordinating control and audit systems, for issuing the management declarations, for the preparation and submission of the requests for payment to the European Commission, for conducting controls on the line ministries' implementation of the recovery and resilience plan, and for handling and ensuring a central reply to requests for information and access to data on final recipients. Specific mandates have been issued to the Swedish National Financial Management Authority (ESV) to ensure coherence of audit and control aspects across the decentralised Swedish governance system, as well as to develop an audit strategy covering all RRF. The ESV is responsible for collecting the data for monitoring the achievement of milestones and targets, thereby assisting the Ministry of Finance in its overall coordination responsibilities.

While in its capacity as overall coordinating entity the Ministry of Finance monitors the implementation of the plan and is responsible for exchanges with the Commission, the responsibility for implementing the individual components (including operational responsibility for audit and control) lies with the public authorities (myndigheter). The main part of the government policies is carried out by the public administration. The number of state authorities in Sweden is relatively large and entities have a high degree of autonomy. Although the authorities report to the Government, they are not organisationally part of the Government Offices. The authorities responsible for managing and monitoring the use of EU funds in Sweden other than RRF funds will thus have a key role for the effective and efficient implementation of the plan. The authorities that have the greatest role in that work are the Swedish Agency for Economic and Regional Growth (responsible for ERDF), and the Swedish Energy Agency (manages the "Industry Leap"). Their experience, capacity and technical expertise should facilitate the effective implementation of the recovery plan. Through contacts between directly responsible authorities and other relevant bodies, the plan is expected to be implemented effectively, in accordance with the requirements of applicable Union law. Funding from the RRF and additional national or Union funds should be disbursed at central level. The Technical Support Instrument (TSI) can provide expertise in building capacities to implement the plan in a number of areas such as energy, green transition, healthcare, education or anti-money-laundering.

Equality

Sweden's Recovery and Resilience Plan (RRP) has a strong focus on gender equality, as the impact of every measure on women and men is carefully assessed. Sweden describes existing national challenges in terms of gender equality, whether they result from the pandemic - young and foreign-born women are particularly affected - or are more structural. The plan describes to a lesser extent challenges related to equal opportunities for all, with an emphasis on the access to the labour market for young people, foreign-born and persons with disabilities. The plan presents the mechanisms and governance structures ensuring that equality will be duly taken into consideration during its implementation. Those include gender budgeting, gender mainstreaming in public authorities and higher education institutions and state authorities' responsibility for the implementation of disability policies. The plan presents to a large extent data disaggregated by gender.

Consultation process

Sweden carried out stakeholder consultations. In April 2021, the parliamentary Committee on Finance was informed about the design of plan. A broad range of stakeholders were consulted along the preparation of the plan and provided proposals for measures Government entities at various levels as well as the main social partners were involved in the preparation within the framework of the national co-ordination on the European Semester, including two high-level meetings with representatives from these main social partners and meetings with representatives of the regions (under the auspices of Association of Local Administrations and Regions). Finally, a dedicated meeting has also been held with representatives of civil society. Where applicable, the stakeholders will continue to be involved in the implementation of the respective measure, to ensure that the authorities have ongoing contact with e.g. companies, municipalities and regions.

Communication strategy

The Government has made it possible for the public to access information about Sweden's plan by publishing it on its website (www.regeringen.se). The Government will follow up with information about future reports made to the Commission and keep the website updated as Sweden's plan is implemented. The Government will commission authorities and executive bodies involved making the RRF funding visible to the public. For projects supported by the RRF, the relevant authorities will be instructed, when applicable, to show the emblem of the Union and an appropriate declaration of funding with the words “Funded by European Union - NextGenerationEU” through appropriate communication channels. The Government also intends to take the necessary decisions to ensure that the provisions of Article 22(2), point (f) and Article 34(2) of the RRF Regulation are complied with in the implementation of the measure for all actions.

The plan indicates a clear commitment by the authorities to meeting the RRF Regulation’s requirements on communication. This refers in particular to making public information regarding the implementation of the Plan and the labelling of projects as financed by the RRF (‘funded by the European Union – NextGenerationEU’). The implementation of the plan could give rise to additional communication opportunities; it will be up to the Swedish authorities, in cooperation with the Commission, to seize such opportunities.

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. 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 Sweden in the recovery and resilience plan cannot be deemed a State aid notification. In as far as Swede considers that a specific measure contained in the recovery and resilience plan entails de minimis aid or aid exempted from the notification requirement, it is the responsibility of Sweden to ensure full compliance with the applicable rules. In addition to complying with the EU’s State aid rules, measures taken under this framework should be compatible with the EU’s international obligations, in particular under World Trade Organization rules.

Security self-assessment

The plan does not explicitly indicate the use of security self-assessments. However, related concerns are alleviated by the fact that there is no measure that would relate to 5G deployment.

4. SUMMARY OF THE ASSESSMENT OF THE PLAN

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

The plan follows a holistic approach to recovery and reinforcing socio-economic resilience, taking into account the specific challenges and financial allocation of Sweden. The plan aims to support the recovery and potential growth, while improving socio-economic and institutional resilience. The plan explains in detail how it addresses the six pillars referred to in 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. The plan contains 27 measures (15 reforms and 12 investments) divided into five components, focusing on the green transition, digital transition, human capital, as well as enhancing the broad resilience of the Swedish economy, in particular through tackling demographic challenges, ensuring the integrity of the financial system, and improving the functioning of the housing market. Sweden submitted its National Reform Programme on 28 May 2021. The information provided in the National Reform Programme is being considered and jointly assessed in this Staff Working Document together with the recovery and resilience plan.

All pillars are covered by at least one component, while a component may contribute to several pillars. The range of actions of the plan corresponds to the one of the Facility with an appropriate overall balance between pillars. The coverage of the Swedish plan's components toward the six pillars is summarised in Table 5.

Table 5: Coverage of the six pillars of the Facility by the Swedish recovery and resilience plan components

	Green transition	Digital transformation	Smart, sustainable & inclusive growth	Social and territorial cohesion	Health, and economic, social and institutional resilience	Policies for the next generation
C1: Green recovery	●	○	○	○		
C2: Education, training and conversion		●	○	○	○	●
C3: Better conditions to meet the demographic challenge and ensure the integrity of the financial system			●	○	●	○
C4: Broadband roll-out and digitalisation of public administration		●	○	●	●	
C5: Investment for Growth and Housing	○		○	○	●	

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

Green transition

Facilitating a green recovery is one of the main policy objectives underlying the plan. Measures focus on decarbonising the industry and transport in Sweden. In particular, component 1 contains dedicated measures to decrease process-related emissions and decarbonise the industry through research and development projects and to support local and regional projects on CO2 emission reductions, including electric charging stations. Moreover, component 1 is expected to help protect valuable nature and thus biodiversity in Swedish forests by establishing formally protected areas of nature reserves. In addition, component 5 includes investment support for energy efficiency and building renovation, to reduce primary energy consumption and carbon dioxide emissions in the housing sector.

Digital transformation

The Swedish plan has a strong digital dimension, with three of its five components contributing to the second pillar of the RRF Regulation. A dedicated component 4 should support investment into high-speed broadband networks, with a focus on filling connectivity gaps in less populated areas, which is expected to increase opportunities and preserve economic activity in those areas. The plan is also expected to support e-government, digital public services and local digital ecosystems with investments into a joint digital infrastructure for public administration

Measures in the plan are expected to foster digital skills, with a focus on professions that will play a key role in the digital transition. Component 2 on education and training includes measures to support human capital and digital skills by supporting both higher vocational education as well as universities and other higher education institutions. A focus is put on fields relating to data/IT or other areas that are expected to foster the digital transition in Sweden, which is expected to help re- and up-skill the labour force for the challenges and requirements of the labour market in a digitalised society.

Measures fostering the green recovery are also expected to contribute to the digital transition. In particular, component 1 includes public support to incentivise the use of smart energy systems as part of building renovations, which will make best use of the synergies between the green and digital transition. Overall, the Swedish plan is expected to contribute to pillar 2 in all relevant dimensions, with targeted measures to make both businesses, citizens, and the public sector fit for the digital age.

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

The plan extensively covers the third pillar as all components are expected to contribute to smart and sustainable growth. The support to the development and application of new technologies in the green domain is expected to help the Swedish economy to grow in a smart and sustainable way. This includes both support to research and innovation in key technologies for the decarbonisation of industry, as well as support to incentivise the application of new technologies, for instance in the area of building renovations.

Specific support for re- and upskilling will help ensure inclusive growth for all. By equipping the labour force with the necessary skills for the future (component 2), the plan will help improve the labour market transition and thus contribute to allow all citizens to make best use of the opportunities of the twin transition. A strong and competitive labour force also lays the foundation for future technological advances and is thus fundamental to ensure productivity growth in the long-run.

Measures aimed at tackling the demographic challenges will help ensure the sustainability of the Swedish economic and social model. Notably, this includes measures related to the pension age limit and social security and tax systems (component 3), which aim at making the Swedish model future-proof in light of increasing life expectancy.

SMEs can benefit from horizontal support schemes to help them better achieve the green transition. This includes the "Industry Leap" and the "Climate Leap" measures, which provide investment support to promote research and development projects on decarbonising the industry, as well as support for local and regional projects to reduce CO2 emissions. Furthermore, SMEs would benefit indirectly from the comprehensive measures to increase the number of study places in higher education and foster vocational training and education.

Social and territorial cohesion

Several components in the plan support social and territorial cohesion. In particular, the measure aimed at supporting the broadband roll-out in rural areas will help ensure that all citizens have access to high-speed connectivity and thus enable them to reap the benefits of digitalisation independently of their location (component 4). Digital connectivity is a prerequisite for an inclusive digital transition and the expansion of high-speed broadband networks is expected to provide a substantial contribution with a view to territorial cohesion in that regard. Investments to substantially upgrade railway in Sweden (component 1) will allow more citizens and enterprises to use railway as a means of transportation, thus fostering territorial cohesion.

Social cohesion will be fostered through measures aiming at education and training, directly contributing to the implementation of the European Pillar of Social Rights. In particular, the measures targeting vocational education (component 2) are expected to have a positive impact on social cohesion, especially for adults in transition and for foreign-born individuals looking for permanent employment. By ensuring the long-term sustainability of the pension system and by improving the skills of staff in elderly care centers (component 3), the plan will also contribute to ensure the welfare of older people and thus help improve social cohesion. Measures to increase the housing supply (component 5) have the potential to make housing more affordable, with positive consequences for social cohesion.

Health, and economic, social and institutional resilience

The resilience of the Swedish health system is expected to be improved through targeted measures in the plan. In particular, the plan includes a reform to incentivise municipalities to offer vocational training in health- and social care in combination with Swedish language training (component 2). This measure is expected to shorten the study period and foster the transition into employment and thus help to increase the supply of properly trained staff in the Swedish health and social sector.

The resilience of the Swedish economy is expected to be improved with measures tackling to some extent inefficiencies in the housing market. The interplay of the Swedish housing market and private indebtedness is a crucial factor from a viewpoint of economic resilience. The measures in the dedicated component 5 on the housing market are expected to contribute to addressing these inefficiencies, by increasing housing supply in the rental market and student housing, increasing competition in housing construction and reducing bottlenecks in the permit procedure.

The plan is expected to contribute to social resilience by fostering the transition prospects on the labour market. To this extent, the measures aiming at re- and up-skilling both foreign and Swedish-born as well as increasing study places and resources of higher educational institutions will contribute to a competitive labour force with higher transition probabilities into and between jobs and thus foster social resilience (component 2). Transition into employment will also be fostered through the reform and modernisation of the employment protection legislation (component 2). Measures aimed at timely addressing the impact of changing demographics, in particular the elderly care initiative and the pension age adjustment, will also contribute to economic and social resilience (component 3).

Measures to foster the digitalisation within the public administration will benefit institutional resilience, as it will help prepare public institutions for the challenges within a digitalised society (component 4). Efforts to combat money laundering and financing of terrorism (component 3) will also contribute increasing institutional resilience by ensuring that relevant authorities have the necessary rights and information to better enforce the regulatory framework.

Policies for the next generation

The Swedish plan is expected to contribute to pillar 6 through its dedicated component 2 on training and education. For the programme combining Swedish language training with vocational training within elderly care, priority will be given to recently unemployed or young people with no prior job experience. Additional resources for education at universities and other higher education institutions will also benefit the next generation, by enabling a greater number of full-time students and help match peoples' skills with demand from the job market (including the Elderly Care initiative in component 3). This measure is complemented by an investment scheme to increase the supply of student housing (component 5). The reform of the employment protection legislation (component 2) is also expected to benefit those without extensive professional experience and will thus help increase job prospects for the younger generation.

Taking into consideration all reforms and investments envisaged by Sweden, 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 Sweden into account. This would warrant a rating of A under the assessment criterion 2.1 in Annex V of the RRF Regulation.

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

The plan is expected to address a significant subset of the challenges identified in the relevant country-specific recommendations. The plan addresses most of the outstanding country-specific recommendations (CSRs) from the 2019 and 2020 exercises in a satisfactory manner. It introduces reforms and investments aimed at addressing the green and digital transitions, the resilience of healthcare, and research and development. As such, and taking into account the size of the financial contribution, the plan contributes to a large part of the economic and societal challenges that Sweden faces. However, the country-specific recommendation related to the macroeconomic imbalances of overvalued houses and continued rise in household debt has only been addressed in a partly satisfactory manner. Sweden has also taken additional measures outside the scope of the plan that address policy challenges covered by the recommendations in 2019 and 2020, such as in the policy areas of anti-money laundering, research and innovation and resilience of the health care system.

The plan only partially addresses the macroeconomic imbalances in the housing market and private debt (CSR 1 of 2019). The latest in-depth review identified overvalued house price levels coupled with a continued rise in household debt as house prices increased fast in 2020. The plan contributes somewhat to addressing these risks through a few measures that aim to increase mobility and reduce housing costs. The plan has a focus on the supply-side of the housing market through investment subsidies for rental and student housing and easing building regulation. On the demand side, the initiatives leading to lower taxes on deferred capital gains should foster demand but may also contribute to higher prices, while they can be expected to help promote housing mobility to some extent. In all, the measures in the plan can be expected to have only a limited impact on the dynamics of the housing market and household debt.

Measures to improve on education and skills (CSR 2.1 of 2019 and CSR 2.2 2020) are included in its plan. The plan has investment measures to both increase the number of study places in vocational training and in higher education as well as an increase in the number of training places. Specifically for health care, the plan foresees training for existing staff in the Elderly Care initiative to increase their education and skill level. The measure modernising labour law, and adapting employment protection legislation, will provide further incentives to scale up human capital. At the same time, additional efforts will be needed in the future to address specific further challenges, notably the educational disadvantage of pupils with a migrant background and growing teacher shortages.

Investment in sustainable transport is strengthened in the plan, in particular in railways (CSR 2.2 of 2019, CSR 2.7 and CSR 2.8 of 2020). The plan foresees EUR 148 million in investments to upgrade railway infrastructure over 2021-2023. The investments should lead to increased reliability and capacity of the railway infrastructure, supporting the transition from road to rail. Several reforms in Component 1 (Green recovery) aim at increasing the environmental taxation of conventional fuels, thereby encouraging the consumption and production of more sustainable alternatives.

The plan contains several measures to support the digital transition (CSR 2.3 of 2019 and CSR 2.1 of 2020). The plan includes expansion of the broadband network to more remote areas and the digitalisation of public administration. Investments in the broadband network will improve the conditions for the digital transition in larger parts of Sweden. The digitalisation of public administration directly contributes to the digitalisation of the public sector but will also make the use of digital services more common. Educational measures will support the digital transition by enhancing digital skills and providing skilled labour for the professions related to the digital transition. The 5G network's auction in early 2021 is deemed key for the digital transition is addressed outside the plan (CSR 2.6) as are the investments in research and innovation via the Research and Innovation Bill financed from the national budget (CSR 2.5).

The plan contains two measures to reduce the risk of the financial system being used for money laundering that complement steps taken outside of the plan (CSR 3 2019 and CSR 3 2020). For the first measure, an inquiry commission has identified the remaining gaps in the financial supervision to prevent money laundering. The second measure addressed an earlier identified opportunity to enhance efficiency in the information exchange by establishing a database for holders of accounts and deposit boxes of financial undertakings that can be checked directly by the supervisory authorities. The information that financial undertakings are obliged to make directly and immediately available in the system will enhance the effectiveness of financial supervision on money laundering.

The plan includes measures aimed at increasing the accessibility and capacity- of the health care system (CSR 1.2 of 2020). The Swedish government has taken many measures outside the plan to address the COVID-19 crisis and started to address the limitations that became obvious through the pandemic. In the plan, Swedish health care benefits from training of elderly care professionals, the augmented number of study places in Vocational Education and Training (VET - Yrkesvux) and in introducing a protected title for assistant nurse to make health care jobs more attractive.

The plan contributes to the overall policy package designed to use the pandemic as an opportunity for transformative investments (CSR 1.1 and CSR 1.2 of 2020). The funds received from the RRF are part of a larger stimulus package designed to address the pandemic and make the economy fitter and more resilient. Public investments are mostly directed in the plan to the green recovery (climate leap, industrial leap, rail infrastructure) with investments in the industrial leap are expected to contribute to green innovation. The investment developing and establishing a joint digital infrastructure for public administration is another, albeit modest, addition to public investment. The aid for energy efficiency in multi-dwelling buildings (green recovery component), the broadband deployment investment aid (digitalization and broadband component) and investment aid for rental and student housing (housing component) should work to strengthen private investment.

The green transition is a core element of the plan, via dedicated investments (including on research and development) and reforms (CSR 2.3 2019, CSR 2.1 of 2020 and CSR 2.5 of 2020). Investments envisaged in the plan aim to further decarbonize the economy with 44,4% of spending funded by the RRF allocated to the green transition. The plan contains investments in research and development to decarbonize the industrial sectors and investments in local and regional projects to reduce CO2 emissions. The plan also aims to reduce GHG emissions through investments to improve the energy performance of multi-dwelling buildings, protection of valuable nature and the upgrading of the rail infrastructure. The plan contains several reform measures to promote the green transition: an increase in the energy tax, adjusting the calculation of the car benefit in taxation to reflect better the car's carbon footprint and increasing the renewables shares in fossil fuels used by the transport sector.

The reforms and investments of the plan are aligned with the European "flagship initiatives" of the 2021 Annual Sustainable Growth Strategy: *power up* (including the promotion of innovative technologies for fossil-free solutions in energy-intensive industries), *renovate* (including aid for energy efficiency improvements in multi-dwelling buildings as well as for rental and student housing), *recharge and refuel* (including a package of reforms that discourage the use of polluting cars), *connect* (including the rollout of rapid broadband services), *modernise* (including the digitalisation of public administration), and *reskill and upskill* (including the promotion of the development of digital skills).

Taking into consideration the reforms and investments envisaged by Sweden, its recovery and resilience plan is expected to contribute to effectively addressing 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 Sweden. This would warrant a rating of A under the assessment criterion 2.2 in Annex V of the RRF Regulation.

Table 6: Mapping of country challenges identified in 2019-20 country-specific recommendations and the Swedish recovery and resilience plan components[1]

Country challenges (as identified in Section 2)	**Associated CSR (2019-2020) and European Semester recommendations**	**Component 1- Green recovery**	**Component 2- Education and transition**	**Component 3- Better conditions for addressing demographic challenges**	**Component 4- Broadband expansion and digitalisation of public administration**	**Component 5- Investment for growth and housing**
Macroeconomic imbalances in the housing market and household debt	2019 CSR 1 Address risks related to high household debt by gradually reducing the tax deductibility of mortgage interest payments or increasing recurrent property taxes. Stimulate investment in residential construction where shortages are most pressing, in particular by removing structural obstacles to construction. Improve the efficiency of the housing market, including by introducing more					○

Country challenges (as identified in Section 2)	Associated CSR (2019-2020) and European Semester recommendations	Component 1- Green recovery	Component 2- Education and transition	Component 3- Better conditions for addressing demographic challenges	Component 4- Broadband expansion and digitalisation of public administration	Component 5- Investment for growth and housing
	flexibility in rental prices and revising the design of the capital gains tax					
Education and skills	2019 CSR 2 focus investment related economic policy on education and skills 2020 CSR 2 support education and skills development.		●	●		
Sustainable transport	2019 CSR 2 maintaining investment in sustainable transport to upgrade the different transport modes, in particular railways, [2] 2020 CSR 2 focus investment on sustainable transport.	●				
Research and development	2019 CSR 2 focus investment related economic policy on research and innovation, taking into account regional differences 2020 CSR 2 Foster innovation. 2020 CSR 2 high tech and innovative sectors [3]	●	●			
Anti-money laundering	2019 CSR 3 Ensure effective supervision and the enforcement of the anti-money laundering framework[4]. 2020 CSR 3 Improve the effectiveness of anti-money laundering supervision and effectively enforce the anti-money laundering framework.[5]			●		
Health care	2020 CSR 1 Enhance the resilience of the health system, including by ensuring sufficient critical medical products and addressing the shortage of health workers.[6]			●		
Green and digital transition	2020 CSR 2 Focus investment on the green and digital transition, in particular on clean and efficient production and use of energy, […], 5G networks	●			●	

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

[1] The recommendations related to the immediate fiscal policy response to the pandemic can be considered as being addressed outside the plan. Sweden has generally responded adequately and sufficiently to the immediate need to support the economy through fiscal means in 2020 and 2021, in line with the provisions of the General Escape Clause.

[2] This CSR was addressed by the adoption of measures not included in the plan.

[3] This CSR was partially addressed by the adoption of measures not included in the plan.

[4] This CSR was addressed by the adoption of measures not included in the plan.

[5] This CSR was addressed by the adoption of measures not included in the plan.

[6] This CSR was addressed by the adoption of measures not included in the plan.

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 expected to contribute positively to GDP growth. The measures are frontloaded with an emphasis on 2021-2023, when the direct positive impact of the plan on growth is expected to be stronger as firms are expected to benefit from the investment incentives and from government-financed training and skilling facilities. According to the plan, additional spending is set to increase GDP by about 0,5% in 2021-2023, reflecting mainly the direct expenditure effects. From 2024 onwards, the GDP growth effect is expected to be limited, due to the expiration of the largest part of supportive expenditure under the RRF. Over the medium and longer term, the plan is expected to enhance productivity and contribute to long-term growth. There is no national estimate of the long-term impact. According to the Commission's QUEST model, the long-term real GDP effect is 0,1% (see box below). The plan is also expected to contribute to employment, notably in 2021-2022. The most significant persistent positive effects on growth, productivity and fiscal sustainability over the medium to long run should stem from reforms in the plan, notably reforms of social security and pensions and changes in labour market legislation. Their impact is, however, difficult to quantify and the plan does not present estimates. Overall, the plan is expected to actively contribute to the implementation of the EU update of the 2020 new industrial strategy.[11]

Box 2: Stylised NGEU impact simulations with QUEST – Sweden

Model simulations conducted by the Commission using the QUEST model show that the economic impact of the NGEU in Sweden could lead to an increase of GDP of between 0,2% and 0,3% by 2026[1] After 20 years, GDP could be 0,1% higher. Spillovers account for a substantial part of such impact.

According to these simulations, this would translate into more than 4000 additional jobs. Cross border (GDP) spillovers account for 0,1 pps 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).[2]

Table 1: QUEST simulation results (% deviation of real GDP level from non-NGEU case)

Scenario	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2040
Baseline	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1
of which spillover	-0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Low productivity	0.0	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0

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

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 Sweden's GDP by 3½% in 20 years' time[3]

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 Sweden's recovery and resilience plan.**

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

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

[3] 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.

Strengthening social cohesion

The plan addresses social disparities that have increased during the COVID-19 pandemic. Investments and reforms in education, digitalisation, and health are proposed to address these disparities, thus contributing in several ways to equal opportunities and better access to the labour market, in line with the guidelines of the European Pillar of Social Rights. In the short run, limited distributional effects are expected once new measures are in place. However, the long-run full-scale positive impact of the investments made in education and training, going beyond the implementation of the plan, is likely to be more marked, as is inherent to investments in human capital. The proposed labour market reform is expected to help increase labour market chances of the more vulnerable groups.

Scaling up vocational education and higher education potentially boosts employment, in particular among disadvantaged groups and in areas with labour shortages. Expenditure aimed at increasing the supply of vocational education across the country is partly directed at the non-EU born population, which has a high share of people in a disadvantaged labour market position (lower occupational levels, higher barriers of entry to employment, lack of relevant skills/education). In addition, higher education, as well as vocational education measures assign a strong emphasis to the digital dimension with the aim of alleviating the shortages and improving the transition opportunities for the unemployed. Together, these measures should support employment and productivity.

Sweden's plan contains a series of measures that are expected to effectively address the country's challenges in the area of gender equality and equal opportunities for all. These include several reforms and investments in the area of education, training and reskilling targeted at young people and foreign born, in particular women. Provisions are also foreseen to support access to education for students with disabilities, for instance by providing specific pedagogical assistance. Reforms and investments in the health and care sector aim at improving the quality of care and lives for older persons. Measures to improve skills and staffing of elderly care and the regulation of the profession of nurse are expected to benefit women and foreign born, who represent the large majority of health and social workers. Investments in student housing are targeting young people. While many measures contribute to equal opportunities for all, equality considerations could have been integrated even more comprehensively throughout the plan and presented more prominently, for instance in the case of measures dealing with the green transition and digital transformation.

All individual investments and reforms are assessed against their impact on gender equality. However, Sweden does not detail the overall impact of its plan on the gender employment and gender pay gaps.

Dedicated measures are addressed to the older and younger generations. The increased supply and quality of the long-term care services expected after the successful training period of the staff working in the municipal elderly care centres should positively impact the lives of the old, while the special supportive measures targeting students and low-income families taken under the 5th Component (Housing), should improve the standing of these two groups in the housing market.

Reducing vulnerability and increasing resilience

Further progress with digital and green transition should help to improve resilience against external shocks. Due to its advanced digital infrastructure, Sweden was able to rely on distance working and continued service activity across several sectors. The emphasis in the plan on measures conducive to digitalisation, such as broadband expansion give a further boost to the digital transition of work that should reduce vulnerabilities to supply-chain disruptions. Measures on the digitalisation of public administration can increase the institutions' ability to adjust to and withstand shocks. The measures to improve matching on the labour market and close skill gaps should help to maintain Sweden's strong competitiveness and facilitate adjustments in the event of adverse economic circumstances. In addition, and not least important, the plan's emphasis on environmentally sustainable initiatives can be deemed to reduce exposure to unsustainable economic activities at risk of obsolescence. In all, the plan contributes to the wider range of trends and policies that has put Sweden on a comparatively advanced trajectory for green and digital transitions, promoting an industry structure heavy in agile and innovative economic activities, conducive to resilience.

Cohesion and convergence

The initiatives in the plan to promote learning, digitalisation and innovation, including on green technologies, are conducive to territorial cohesion and convergence. In comparison, regional disparities in Sweden are less marked than in several other EU countries. The plan contains several measures that contribute to a balanced regional development. Broadband expansion is tilted towards outer regions without connections. Expanding broadband should improve access to the labour market and scope for businesses to interact with suppliers and customers regardless of location. Training and schooling programmes in the educational component of the plan are accessible in less densely populated areas across the country while upgrading transport infrastructure should also help diminish regional dispersion. Initiatives focusing on innovation and the green transition could provide fresh impulses to growth, jobs and innovation in parts of the country outside the historical economic centres, thus enhancing territorial cohesion. For example, the launch of fossil fuel-free steel production has propelled Sweden to global leadership in green innovation in the steel industry. The pioneering production facilities are located in the north of the country, contributing to a dynamic new regional growth pole.

Taking into consideration all reforms and investments envisaged by Sweden, 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 of the RRF Regulation.

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

Sweden performs well on most of the indicators of the Social Scoreboard supporting the European Pillar of Social Rights. Although it has slightly declined after the initial impact of the COVID-19 crisis, the employment rate remains among the highest in the EU at 81,0% (Q3 2021). There has been an increase in the unemployment rate of 0,9 percentage points, from 7,2% in January 2020 to 8,1% in January 2022. On the other hand, long-term unemployment has increased significantly, from 1.1% in Q1 2020 to 2.2% in Q3 2021.

Social Scoreboard for SWEDEN

Equal opportunities and access to the labour market	Early leavers from education and training (% of population aged 18-24) (2020)
	Individuals' level of digital skills (2019)
	Youth NEET (% of total population aged 15-29) (2020)
	Gender employment gap (2020)
	Income quintile ratio (S80/S20) (2020)
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 (2020)
Social protection and inclusion	At risk of poverty or social exclusion (in %) (2020)
	At risk of poverty or social exclusion for children (in %) (2020)
	Impact of social transfers (other than pensions) on poverty reduction (2020)
	Disability employment gap (2020)
	Housing cost overburden (2020)
	Children aged less than 3 years in formal childcare (2020)
	Self-reported unmet need for medical care (2020)

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

Update of 13 January 2022. 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 proposal for a Joint Employment Report 2021, COM(2020) 744 final; NEET: neither in employment nor in education and training; GDHI: gross disposable household income.

The level of digital skills among the population is very high. The good overall results reflect Sweden's advanced welfare model with efficient active labour market policies, a robust social protection system, and long-standing and well-established social dialogue. However, already before the crisis the country faced challenges in terms of increasing the labour market participation of the low-skilled and foreign-born, in particular women. These groups are also among the most impacted by the COVID-19 crisis. In Q3 2021, the unemployment rate of the low-skilled was 28.1% compared to 4.3% of the high-skilled, while unemployment of the non-EU born stood at 22.5% against 5% of those born in Sweden.

Sweden continues to improve its policies to facilitate labour market integration. Public employment services have long been implementing policies to make the labour market more inclusive and to encourage enrolment in education and training. The previously announced "intensive year" (*intensivår*) for newly arrived migrants was launched in April 2021. The intensive year is based on a personalised plan of activities developed by the Public Employment Service together with the participant. Participants can for example study Swedish at a fast pace or do an intensive full-time internship in order to find work quickly. They are also be encouraged to meet up with a mentor and take part in other activities in their spare time that will help them learn Swedish. After finishing the Intensive Year, participants will be given a certificate of knowledge, which describes what they have achieved and their language and occupational skills.

The recovery and resilience plan submitted by Sweden addresses some of the employment and social challenges relevant for the implementation of the Pillar. To foster equal opportunities and access to the labour market, the plan focuses heavily on VET and higher education. As there is a large skills mismatch in Sweden, with many of the unemployed lacking the necessary skills, focusing on upskilling and reskilling is key. Some of the measures proposed in the plan include increased study places in higher vocational education and regional adult vocational education, as well as the creation of shorter higher vocational education courses and programmes to ease job transitions. To ensure a better integration of migrants, the plan also includes a measure to increase compensation for vocational training in combination with courses in Swedish for Immigrants and Swedish as a second language. The plan also envisages measures to support affordable housing, with investment in construction of houses with special requirements ensuring favourable rental conditions. This should benefit students, people in socially vulnerable situations who need rental support to access the regular housing market, as well as young people below 31 years old. However, the educational disadvantage of pupils with a migrant background and the challenges of the teaching profession are not addressed.

4.4. The principle of ‘do no significant harm’

The Regulation establishing the Recovery and Resilience Facility provides that no measure included in the recovery and resilience plan should lead to significant harm to any of the six environmental objectives within the meaning of Article 17 of the Taxonomy Regulation[12]. In line with the RRF Regulation and the Technical Guidance on the Application of ‘do no significant harm’ under the Recovery and Resilience Facility Regulation (hereafter ‘DNSH Technical Guidance’)[13], Member States provide a ‘do no significant harm’ (DNSH) assessment, on which basis the Commission assesses whether each measure of the plan complies with the DNSH principle. Sweden has included a detailed DNSH assessment for each measure included in its plan.

The evidence provided on the design of measures is sufficient to conclude that no measure in the plan is expected to do significant harm to any of the environmental objectives. By selecting measures that either contribute substantially to environmental objectives, or have no or an insignificant foreseeable impact on environmental objectives, many measures in the plan can be considered DNSH compliant from the outset. This includes, for example, measures on education, labour market, public administration and anti-money laundering. For measures requiring a substantive DNSH assessment in accordance with the DNSH Technical Guidance (e.g. sustainable mobility and broad support schemes), Sweden has provided evidence and assurances substantiating that the measures will not lead to significant harm to any of the six environmental objectives.

As a first step, Sweden seeks to ensure that the activities supported by the plan comply with DNSH by committing to the application of all relevant EU and national environmental legislation. The national environmental code contains provisions applicable to individuals as well as businesses that ensure the protection of the environment through several principles that notably

[12] 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.
[13] COM (2021) C58/01, Technical Guidance on the Application of ‘do no significant harm’ under the Recovery and Resilience Facility Regulation.

transpose relevant EU Directives. These include, but are not limited to, the precautionary principle, principles to prevent or discourage an activity from causing harm to human health or the environment, principles to save and reduce waste and energy, using renewable energy as a priority. The environmental code also contains environmental quality standards that set a minimum acceptable quality for soil, water, air and the environment. Moreover, the environmental code stipulates that certain measures must be subject to an environmental impact assessment, in line with the Environmental Impact Assessment Directive[14].

Component 1 (Green recovery) of the plan foresees investment support in projects at local and regional level to reduce CO2 emissions ('Climate Leap') and investments in innovative R&D projects to reduce industrial emissions ('Industry Leap'). For any action funded by these programmes that may fall under the EU Emissions Trading System (ETS), Sweden has among other conditions sought to ensure DNSH compliance by showing that the selection of supported projects is conditional upon achieving GHG emissions that are substantially below the relevant benchmarks established for free allocation[15].

With one exception, activities covered by the EU ETS are not eligible for funding from the 'Climate Leap'. Waste heat in industry for use in district heating is eligible as Sweden considers waste heat to be a resource-efficient way of meeting heating needs, which is not sufficiently incentivised by existing instruments, including the EU ETS. Waste heat is expected to indirectly reduce GHG emissions as it often replaces fossil fuels, electricity and fuels from biomass by feeding into the district heating network and replacing more emission-intensive heat production. Any such funding for waste heat shall have projected greenhouse gas emissions significantly below the heat benchmark established in Commission Implementing Regulation (EU) 2021/447. Furthermore, (i) activities and assets related to fossil fuels, including downstream use; (ii) activities and assets related to waste landfills, incinerators and mechanical biological treatment plants; and (iii) activities and assets where the long-term disposal of waste may cause harm to the environment are also excluded from financing.

Investments under the 'Industry Leap' may concern activities under the EU ETS but do not distort the price signals put in place by the ETS. The objective of the 'Industry leap' is to radically shift the industry sector to become fossil-free and contribute to the set ambitious climate goals in line with Sweden's target of achieving net zero emissions by 2045. Such industrial transition requires investments in completely new technologies that are costly and for which the allowance price in the EU ETS is currently well below what is needed for such investments. It is therefore considered that the 'Industry Leap' is an additional policy instrument that does not distort the price signals put in place by the ETS.

Moreover, the selection criteria for projects that can receive funding from the 'Climate Leap' or the 'Industry Leap' are sufficiently stringent to ensure that no project includes fossil fuels (including downstream use). It should be noted that (i) activities and assets related to waste landfills, incinerators and mechanical biological treatment plants; and (ii) activities and assets

[14] Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment

[15] Benchmarks as set out in the Commission Implementing Regulation (EU) 2021/447.

where the long-term disposal of waste may cause harm to the environment, are also excluded from financing.

In order to ensure full compliance with DNSH, the plan specifies that certain measures shall comply with DNSH requirements as outlined in the DNSH Technical Guidance. This is the case, for example, for measures supporting innovative R&D projects ('Industry Leap') that may cover installations under the EU Emissions Trading System (ETS) in Component 1 (Green recovery) and broad support schemes spanning across sectors and activities ('Climate Leap') in Component 1. The DNSH compliance of these measures is included in the description of the measures in the Council Implementing Decision.

The plan also includes measures to improve the energy efficiency of buildings. Although these type of measures have a positive impact on the reduction of emissions, they are susceptible to creating significant amounts of construction waste. Sweden ensures no significant harm will be done to the circular economy objective by detailing in the plan for each of the measures that at least 70% (by weight) of the non-hazardous construction and demolition waste generated on the construction sites will be prepared for reuse, recycling and other material recovery.

Taking into account the assessment of all the measures envisaged, no measure for the implementation of reforms and investments projects included in Sweden's recovery and resilience plan is expected to do significant harm to environmental objectives within the meaning of Article 17 of the Taxonomy 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 of the Recovery and Resilience Facility Regulation.

4.5. Green transition

Climate target

The Swedish plan dedicates EUR 1.46 billion to the climate objectives, which represents 44,4 % of the plan's total allocation in non-repayable financial support. This exceeds the minimum climate target of 37% as set out in the RRF Regulation. Table 7 below presents the contribution of all measures that contribute to the climate change objectives. The investments included in the 'green' component (Component 1) make up for the largest share of of the total climate contribution of the plan. These investments contribute towards the climate change objectives through a variety of interventions, ranging from broad schemes supporting the decarbonization process of emission-intensive industries and financing local / regional investments in CO_2 emission reductions, to more specific investments aimed to improve the energy efficiency of apartment buildings and the upgrade of railways. These investments are complemented by reforms which increase the environmental taxation of conventional fuels.

The tagging is based on a correct application of the methodology for climate tracking as set out in Annex VI to the RRF Regulation, by identifying intervention fields, and corresponding coefficients for the calculation of support to climate change objectives. For broad measures, the climate contribution is computed at sub-measure level to ensure that intervention fields are accurately selected and to avoid any overestimation of the overall contribution of individual measures to the climate objectives. This applies in particular to the 'Climate Leap' measure, with different 7 sub-measures representing 4 intervention fields. Whenever a selected intervention field includes specific additional conditions, these are substantiated in the description of the respective measure as well as reflected by specific provisions in the milestones and targets to ensure that the characteristics of the measures are conform the conditions set out in Annex VI to the RRF Regulation. The Swedish plan does not propose to increase the climate coefficient for any of the measures.

Table 7: Contribution to climate objectives per measure

Measure		Cost (EUR mln)	Climate contribution (EUR mln)	Climate contribution (%)*
1.1	Local and regional climate investment	811.1	811.1	24,7%
1.2	Climate investment in the industrial sector	286.4	260.6	7,9%
1.3	Energy efficiency in apartment buildings	59.8	23.9	0,7%
1.4	Strengthened railway support	148.1	148.1	4,5%
1.9	Protection of Valuable Nature	246.9	98.8	3,0%
5.1	Investment support for rental housing and housing for students	296.3	118.5	3,6%
Total		**1848.6**	**1461.0**	**44,4%**

** Please note that the climate contribution (%) is calculated based on Sweden's total allocation (EUR 3.289 million)*

Green transition

The recovery and resilience plan contributes to Sweden's green transition, addresses the related challenges and is well aligned with the priorities of the European Green Deal and its 2030 climate target plan as well as the goal to make the EU climate-neutral by 2050. In this regard, the green component aims at tackling challenges to Sweden's objective of achieving carbon neutrality by 2045. The measures included in the component will increase investments in the climate transition of industry as well as energy efficiency in housing, encourage sustainable transport modes and restore biodiversity in forests.

The plan has a strong focus on sector-specific measures to decarbonize industry and transport, and contributes towards meeting the Commission's guidance to Sweden as set out in the National Energy and Climate Plan (NECP). The industry and transport sectors are considered priority sectors for climate mitigation in the NECP and are also the main targeted sectors for the green transition in the Swedish plan. The green component contains measures that aim to decrease the quantity of process-related emissions, which are relatively expensive to reduce since the technology is not readily available on the market today. In view of this, the Swedish recovery and resilience plan recognizes a need for further research, innovation, demonstration and implementation of such technological solutions on a larger scale. The plan aims to meet this challenge by increasing the resources available for the 'Industry Leap' measure, an existing investment scheme aiming to decarbonise industry via the promotion of research and development projects. The component also increases the resources available for the Climate Leap to support local and regional projects that reduce CO2 emissions, such as electric charging stations. Lastly, the component also contains a package of reforms that discourage the use of polluting cars, which are part of a broader green tax reform aiming to shift taxation from labour to the environment. The measures are expected to contribute to reaching the Green Deal objectives to support industry to invest in innovation, become global leaders in the green economy, and roll out cleaner, cheaper and healthier forms of private and public transport[16].

The plan also includes measures to improve the energy efficiency of buildings by providing aid for energy efficiency improvements in multi-dwelling buildings as well as for rental and student housing. These measures are expected to help reducing carbon dioxide emissions in the housing sector. The sector emits 11 million tonnes of carbon dioxide per year, mainly coming from electricity and space heating in homes. The two investments in energy efficiency and building renovation correspond with the overall objectives of the European Green Deal and the measures are expected to result in average primary energy savings or greenhouse gas reduction by at least 30%.

With respect to the plan's contribution to tackling environmental challenges, including biodiversity, the measures in the plan introduce an adequate level of environmental mainstreaming. The plan responds to some of the major challenges for Sweden in terms of environmental protection, including decreasing emissions in industry and providing support to sustainable transport with measures such as the 'Industry Leap' and the investment in railways. These measures will benefit amongst others air quality. The energy efficiency of buildings measures foreseen by the plan as well as some of the projects envisaged by the 'Industry Leap' are expected to have a positive impact on the circular economy. The 'Protection of Valuable Nature' measure is expected to directly support the objective of preserving biodiversity, by establishing nature reserves for the protection of valuable natural habitats, including forests. This measure is especially appropriate given that more than half of Sweden's territory is covered by forests and Sweden has the largest forest area of all EU Member States.

The measures in the recovery and resilience plan will help Sweden to leverage the green transition and introduce changes to the economy with lasting impacts. The investments are expected to lay the ground for sustainable infrastructure and housing. The reforms are expected to contribute to a lasting change in production and consumption, which should in turn contribute to a sustainable economy in line with Sweden's long-term strategy. In particular, the reforms and investments in sustainable transport are expected to contribute to significant reductions in greenhouse-gas emissions and air pollution from transport, thus ensuring a better environment for people and better conditions for economic operators both in the short and long term.

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 of the RRF Regulation.

[16] See European Commission, The European Green Deal, COM(2019) 640 final, 11.12.2019.

4.6. Digital transition

Digital tagging

Reforms and investments contributing to digital objectives account for 20,5% of the plan's total allocation. Three out of the five components in the plan contribute to digital objectives. A substantive contribution stems from the measures in the dedicated component 4 on broadband expansion and digitalisation of public administration. In addition, investments related to energy efficiency of buildings in component 1 (green recovery) as well as measures related to digital skills in component 2 (education and training) are expected to contribute to the digital transition or address the challenges resulting from it.

The plan correctly follows the methodology for digital tagging set out in Annex VII of the RRF Regulation, by identifying intervention fields, and corresponding coefficients for the calculation of support to the digital objectives, for each measure (the table in the Annex presents the detailed application of the digital tagging methodology). The choice of intervention fields for the digital transition is well justified and reflects the nature, focus, objective or expected outcome of the investments. The plan does not propose an increase in coefficients.

Table 8: Contribution to digital objectives per measure

Measure		Cost (EUR mln)	Digital contribution (EUR mln)	Digital contribution (%)*
1.3	Energy efficiency in apartment buildings	59.8	23.9	0,7%
2.3	More study places in higher vocational education	104.3	41.7	1,3%
2.4	Resources to meet demands for education at universities and other higher education institutions	307.7	123.1	3,7%
4.1	Joint public administration digital infrastructure	20.7	20.7	0,6%
4.2	Broadband expansion	464.2	464.2	14,1%
Total		**956.7**	**673.6**	**20,5%**

** Please note that the digital contribution (%) is calculated based on Sweden's total allocation (EUR 3.289 million)*

Digital transition

The plan contains several measures that are expected to contribute to the digital transition and to address challenges resulting from it in a lasting manner. A substantial share of the digital expenditure will support the expansion of broadband connectivity. The plan will also support digital public services and local digital ecosystems with investments into a joint digital infrastructure for public administration and investments into digital technologies to support the energy efficiency of buildings. Finally, the plan will support digital skills and thus human capital accumulation with measures to increase study places in higher vocational education and by increasing the necessary resources for universities and other higher education institutions.

Investments and reforms also link to the following flagships as put forward in the 2021 Annual Sustainable Growth Strategy: *connect* (rollout of rapid broadband services), *modernise* (digitalisation of public administration), *reskill and upskill* (supporting development of digital skills) and *renovate* (promotion of digital technologies to increase energy efficiency of buildings). The measures in the plan are also expected to contribute to strategic priorities identified at EU level and reaffirmed in the recent communication on Europe's Digital Decade[17]: skills, infrastructures, and digitalisation of public services.

The actions put forward in the plan are coherent with the relevant national strategies and plans in the digital domain. The measures in the digital domain are consistent with Sweden's Digital Strategy, launched by the Government in 2017. The overall goal is for Sweden to be world leader in the digital transformation. In particular, the strategy sets objectives in the area of digital skills, digital security, digital innovation, digital infrastructure and digital leadership. Measures in the plan correspond to each of these dimensions. The measures put forward in the plan in the area of broadband connectivity are also coherent with the national broadband strategy, which includes the that 95% of all households and businesses should have access to broadband at a minimum capacity of 100 Mbps by 2020. Furthermore, by 2025 all of Sweden should have access to high-speed broadband, according to the strategy.

Investments in digital infrastructure are expected to reduce connectivity gaps and to meet the needs of an increasingly digital society. Given that Sweden has an overall well-developed broadband infrastructure, financial support should be used to accelerate broadband roll-out in sparsely populated areas and to close remaining connectivity gaps. To that aim, Sweden aims to invest in fixed high-speed broadband networks in areas where access would not be provided on commercial basis alone.

RRF funding would be used to foster digital skills and address labour shortages in specific professions. Within the component "Education and training", investments are planned to be made to increase the number of study places in higher vocational education, with a special focus on fields of data/IT or other areas that contriute to the digital transition. In addition, Sweden aims to use RRF funds for investments to scale-up the education at universities and other higher education institutions, with a substantive share going to programmes that increase digital skills.

Sweden aims to support the digitalisation of its public administration. Investments should be financed to develop new digital services and upgrading and modernising existing ones. In particular, Sweden aims to develope a national framework for basic data, new and improved digital services, as well as elements for the exchange and handling of information and a common trust and security framework. This would lead to standardised solutions for citizens and businesses across the public administration.

Finally, the Swedish plan aims to foster synergies between tackling the green and digital transition. Investments in the component on the green recovery aim to support the use of digital

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

technologies to increase energy efficiency of buildings. In particular, a public support scheme should incentivise property-owners to renovate multi-dwelling buildings and apply smart energy systems as part of the renovation effort.

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 of the RRF Regulation.

4.7. Lasting impact of the plan

The reforms and investments in the plan are expected to have a lasting impact over the medium and longer term on policies by permanently enhancing innovation capacity, environmental sustainability, human capital, digital skills and labour force participation. Effects of reforms should contribute positively to higher employment levels, improved human capital formation and an extension of working life, and to prudent long-term fiscal positions. Further, through competence development and labour market inclusion, the plan contributes to improving social cohesion and inclusion.

The implementation of the plan's measures is expected to foster structural change in the economy. For example, the reform of environmental taxes raises the price of environmental damage and increases the share of environmental taxes, contributing to climate goals and other environmental goals, thus accelerating the green transition of the economy. The promotion of innovative technologies for fossil-free solutions in energy-intensive industries ('Industry Leap') should have a long-lasting impact, aimed at accelerating growth of emerging sectors and creating further opportunities for sustainable growth.

The digitalisation of public services and administration is expected to work towards a modal shift in communication between authorities and the public. This constitutes progress towards creating the digital public sector of the future by a continuous modernisation of the digital infrastructure, meeting the needs of all citizens and businesses, and strengthening connectivity. The green and digital elements of the plan support the green transition and promote ICT-driven innovation. Raising the age limits in pension, social security and tax systems in accordance with the change in life expectancy should help maintain the sustainability of public finances.

Several components in the plan support social and territorial cohesion and convergence, which is expected to have an impact also in the long term. The broadband measure is tilted towards outer regions (the regions still not having broadband connection) and, thereby, helps promote regional cohesion in relation to less densely populated areas across the country. This will enable a broader public to take part in the upward social and economic convergence driven by digitalisation. The investments in education, largely targeting vocational education, including for adults and in combination with Swedish for immigrants and Swedish as a second language, can be expected to have impact on social cohesion and integration.

Promoting growth and employment, strengthening social and regional cohesion and supporting green and digital transitions could be singled out as the most important envisaged results of the plan, with specific measures such as the adjustments of the age limits in pension

and social security systems, investments made in vocational, higher vocational and tertiary education, labour market reform, broadband expansion and efforts towards the reduction of the GHG emissions emerging as particularly relevant. Notwithstanding its limited envelope (around 0,7% of the 2019 GDP), Sweden strikes an appropriate balance between investments and reforms, allowing for lasting impact on certain environmental, economic, and societal areas.

Structural changes in administration and institutions

Structural changes in administration and institutions are expected to take place once the projects presented under the investment "Joint public administration digital infrastructure" will be carried out. With the aim of enhancing the efficiency, security, and interoperability of the public administration's digital infrastructure, the investment will work towards a modal shift in the communication between the citizens and the relevant public authorities, marking progress towards a more integrated approach in data management.

Structural change in policies

Changes in fiscal policy follow from the context imposed by demographic factors. Sweden has maintained a disciplined budgetary policy over a sustained period, notable in this regard being a consolidated gross public debt anchor of 35%, a surplus target for the general government, an expenditure ceiling for the central government, and the requirement for the local governments to pursue balanced budgets. However, in the absence of reforms, the demographic trend of increased life expectancy, coupled with the slow-paced growth in working-age population, will put a strain on the public pension system, affecting the sustainability of public finances. To mitigate the risks posed by this trend, Sweden has included within the framework of its recovery and resilience plan non-funded reforms aimed at ensuring a prudent medium and long-term fiscal position. The "Adjusted age limits in social security and tax systems" reform aims at: (1) lengthening the working life by increasing the minimum age limits for retirement and tying them to a benchmark age aligned with average life expectancy and; (2) expanding the scope of the social security system by aligning the contributions age limits with those for retirement. Such adaptations to pension, social security and tax systems in accordance with changes in life expectancy should thus help improve the long-term sustainability of public finances The foreseen cumulative impact of this reform is a gross government debt reduction by EUR 1.6 billion in 2027 (around ¼% of GDP).

Measures under the green component imply changes in environmental policy which are also deemed to have durable effects. The tax incentives framework will be influenced for years to come by the new reforms designed to reduce greenhouse gas emissions. Regulations requiring biofuels to be blended in conventional fuels ("Changes in the reduction of fossil fuels obligation"), the gradual phasing-out of the energy tax reduction on fuels consumed for heating or the operation of stationary engines ("Adjustments in the reduction obligation of energy tax on fuel"), and downwards adjustments of the taxable benefits of owning a personal car ("Adjusted taxable benefit rates for passenger cars") are expected to contribute to lower fossil fuels consumption, a reduced number of cars, less road congestion, and higher revenue from environmental taxes.

Other lasting impacts

Beyond the structural changes envisaged in terms of institutional, administrative, and policy framework, some societal aspects and part of economic activity are expected to be positively

impacted in the long-term. The investments made under the educational component are expected to bring a lasting impact on productivity and social cohesion through contributing to a higher stock of human capital and improved matching in the labour market. RRF funds dedicated to more study places in regional and higher vocational education centres, and reforms for scaling up the education at universities and other higher education institutions, should support labour force participation and productivity (with special attention for individuals coming from the lower end of the income distribution and for the non-EU born). An example of a green transition with long-lasting impact is the promotion of innovative technologies for fossil-free solutions in energy-intensive industries, that will accelerate growth of emerging sectors, creating further opportunities for sustainable growth.

Furthermore, given the fact that the broadband roll-out is directed towards more remote areas (the regions still not having complete broadband coverage), regional cohesion should be positively impacted. With investments made in human capital for the staff working in elderly care centres across the country, the long-term care safety and quality of services are expected to improve. Lastly, measures to secure an increased supply of new houses and reduced transaction costs are expected to contribute to a better functioning housing market. However, more ambitious additional efforts aimed at addressing the existing imbalances stemming from household debt and the housing market with a wider range of instruments would help limit risks to a balanced and sustainable growth path over the longer term.

Taking into consideration all reforms and investments envisaged by Sweden in its Recovery and Resilience plan, their implementation is expected, to a large extent, to bring about a structural change in relevant policy areas and to have a lasting economic and societal impact. This warrants a rating of A under criterion 2.7 in 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

The implementation of Sweden's recovery and resilience plan will be based on Sweden's regular system of budgetary management and governance. The existing statutes and decisions governing the measures in the plan assure that there are already requirements for the authorities to monitor and verify the correct use of disbursed public funds. In addition, the Swedish government is committed to introducing certain organisational changes, which, together with the existing system, will create robust processes and structures to protect the financial interests of the Union.

The bodies implementing the plan are either national authorities or state agencies that are responsible for the implementation of policy in certain thematic areas. These authorities and agencies enjoy a high degree of autonomy and have resources allocated to them through the regular budgetary process. One or more authority/agency will be tasked with the implementation of each reform and investment, will have the responsibility to ensure the achievement of the respective milestones and targets and will report to the government on progress achieved and on associated audit and control aspects. The government will take the necessary decisions to adapt the regulatory framework and give authorities the necessary additional mandates to ensure that measures are implemented in accordance with the RRF Regulation. The government will also ensure that the authorities have sufficient financial resources to carry out their tasks.

Milestones and targets

The plan includes 23 milestones and 33 targets that appropriately reflect the lifecycle of the measures. The timing of the milestones and targets is front-loaded towards the first four years of the period that the plan covers, with 82% of the milestones and targets relating to 2020-2023. The milestones and targets that will only be met after 2023 mainly concern demand-driven schemes.

The milestones and targets in the plan are clear and realistic and the proposed indicators are relevant, acceptable and robust. Milestones and targets are realistic and in line with the costing estimates provided by Sweden. The number of milestones and/or targets per measure (ranging between one and five) is a realistic reflection of the different stages of implementation of reforms and investments. Milestones mostly concern reforms taking the form of a legal act and refer to the entry into force of a new piece of legislation to capture the actual implementation of new provisions. The targets generally refer to concrete outputs such as the number of registered students in higher education, the kilometers of railway upgraded and the number of buildings having broadband access. Only a few targets relate to the budgetary execution of allocated funds. These targets concern investments having dedicated budgetary envelopes that are based on future calls for tenders. Given that the precise content of these measures is often decided at a later stage of implementation and the number of beneficiaries is not known ex-ante, final targets are based on the completion of the calls and financing decisions permitting the funds to be contracted.

The level of ambition for the proposed milestones and targets is adequate, reflects the cost estimates and takes into account potential risks of delays in the implementation of each measure. This also applies to measures characterised by higher levels of uncertainty concerning their outcome, such as demand-driven schemes and investments pertaining to research and development projects. To ensure the successful achievement of these measures, intermediate milestones and targets have been added to enable Sweden to take corrective actions early on in the implementation process if necessary.

Overall organisational arrangements

The Swedish National Financial Management Authority (ESV) is entrusted with the task of to monitor and audit the achievement of the milestones and targets. The authority is responsible for (a) collecting information on the achievement of milestones and targets from the authorities responsible for the respective measures in the Swedish recovery and resilience plan, (b) examining whether the reported targets and milestones are met, (c) carrying out audits on the measures included in the plan, and (d) providing the relevant information to the Swedish government. In addition, state authorities are required to submit a management declaration to the Government once per year, as well as to report on the progress of the relevant milestones and targets.

The arrangements proposed by Sweden 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 of the RRF Regulation.

4.9. Costing

Sweden has provided individual cost estimates for all investments and reforms in its recovery and resilience plan for which it requested funding through the RRF. The costing information and supporting evidence provided by Sweden is sufficient to consider that costs are overall reasonable, plausible, do not include costs covered by existing or planned EU financing and are commensurate to the expected economic and social impact of the envisaged measures. For the majority of measures included in the Swedish plan, Sweden provided detailed information and evidence on costs using the standard template tables, which was supplemented by separate documents including more elaborate descriptions of the methodology underlying the cost calculations as well as the budgetary implications of measures. Sweden did not provide an independent validation for any of the cost estimates proposed.

The reforms and investments included in the Swedish recovery and resilience plan comply with the eligibility criteria set out in the RRF Regulation. All costs supported by the RRF are incurred for reforms and investments (to be) implemented after 1 February 2020 and according to the agreed milestones and targets no RRF funding is to be requested after 31 August 2026. Value-added tax (VAT) is not part of the cost estimates and costs that could have a recurrent nature are not included in the plan.

Reasonable costs

Sweden provided sufficient information to justify the reasonability of the cost estimates of a significant majority of measures. The evidence supporting cost estimates provides a reasonable explanation of the key cost drivers of the proposed measures, even though the degree and depth of the evidence provided varies across measures. Sweden mostly relied on the costing information of similar past or parallel projects as a basis for deriving cost estimates. The Swedish plan contains a number of demand-driven schemes, that are characterized by having a certain budget to be allocated to final recipients on the basis of calls for interest or proposals, for which ex-ante cost estimations are less obvious. In support of these measures, Sweden provided evidence showing that the projected number of recipients and the overall amount to be spent is in line with the funding needs of the sectors targeted.

Plausible costs

The estimated total costs of the Swedish recovery and resilience plan are in line with the nature and type of the envisaged investments. For the majority of measures included in the plan, Sweden has provided information on comparative and/or historical measures in support of the plausibility of key cost drivers. Nevertheless, in a limited number of instances the comparability of past projects to the ones proposed in the plan could not be established. Depending on the significance of the shortcomings identified, these measures, representing a minority, are assessed as having “low” or “medium” plausibility.

No double Union financing

Sweden has indicated for each individual measure that the costs to be financed by the RRF will not be funded at the same time by other Union funding sources. In a dedicated chapter of the Swedish recovery and resilience plan as well as in the technical annex attached to the plan, Sweden provides the assurance that, to the extent that procedures for the prevention of double funding are not already present within the existing regulatory framework governing the measures in the plan, such procedures will be put in place to ensure that the reforms and investments included in the plan do not finance the same costs as other Union funds.

Commensurate and cost-efficient costs

The total estimated cost of the Swedish recovery and resilience plan is commensurate to the expected social and economic impact of the envisaged measures. The plan is expected to address a significant subset of challenges identified in the European Semester, including country-specific recommendations (CSRs) and previous Semester country reports. Furthermore, the plan contains measures that support economic growth and economic cohesion in an inclusive manner including to a certain degree measures aimed at reducing inequalities in vocational education and enhancing the integration of vulnerable groups in the labour market. Moreover, the plan addresses weaknesses of the Swedish economy, boosting growth potential, stimulating job creation and mitigating the adverse effects of the crisis.

The justification provided by Sweden on the amount of the estimated total cost 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.

Sweden 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

A robust national internal control system should ensure the protection of the EU financial interests (prevent, detect and correct fraud, corruption, double funding and conflicts of interest), as well as ensure the accuracy of the data underlying milestones and targets.

Robustness of internal control system and distribution of roles and responsibilities

The internal control system as set out in its plan is based on robust processes and structures. This includes clarity on the roles and responsibilities of the actors (bodies/entities) for control and audit, assurance that the relevant control functions are appropriately segregated and that the independence of actors performing audits is ensured. In the decentralised Swedish system it is the government that decides on the policies while specific government departments, executive agencies, local bodies and other public entities involved in the execution of policies will be given a specific mandate and get the resources allocated to allow them to pursue their obligations. The Parliament has to endorse these by agreeing on the budget acts (including amendments).

The implementing bodies are either national authorities (at central, regional, local level) or state agencies/bodies responsible for implementation in certain policy areas. These implementing entities are allocated resources as foreseen in the budget, are given a specific mandate on the task they are required to execute and must implement their activities in a highly independent manner within the limits of attributed resources and following the specific executive mandates delegated by the government, with ensuing accountability and reporting obligations. This means that each implementing body bears responsibility for audit and control aspects in fulfilling their tasks. The decentralised system of execution implies a variety of control systems and dedicated repositories.

The coordination and preparation requests for payment and their annexes is the responsibility of the Ministry of Finance. The central coordinating capacity for the Swedish plan is the international and economic department within the Ministry of Finance. To ensure coherence in the implementation of the plan and assist the Ministry of Finance with its overall coordination duties, the overarching audit authority is the Swedish National Financial Management Authority (ESV). To allow ESV to fulfil these tasks, specific mandates have been granted by government decision since the submission of the plan. ESV has been given the authority to obtain information on the achievement of milestones and targets from the implementing bodies responsible for the respective measures in the plan; carry out audits on the measures in the recovery plan and provide a summary of these. Moreover, ESV has been tasked to develop an overarching audit strategy for RRF execution. The central coordinating capacity within the Ministry of Finance is responsible for handling and ensuring a central reply to requests for information and access to data on final recipients. The collection and storage of such data is ensured by the authorities responsible for implementing the RRP.

Allowing these mandates to be fully functional for requests for payment requires further adaptations to regulations and mission statements of the implementing bodies. These adaptations had to be formalised within the Swedish system, by giving mandates to the various authorities to report on objectives, milestones and targets to ESV and to the central coordinating capacity within the Ministry of Finance, to provide the associated management declarations and to give visibility to Union funding. For these purposes, additional milestones have been defined and added to the plan.

The National Audit Office (NAO) will also support assurance with their recurrent audits on whether the implementing bodies comply with directives and rules, whether they achieve their objectives and whether government action is effective and efficient. However, the NAO acts independently from the government in executing its mandate given by Parliament and is therefore not directly responsible for ensuring compliance in executing the requirements of the RRF.

Adequacy of control systems and other relevant arrangements

The control systems in place are adequate, subject to the implementation of additional measures to enhance coordination and clarify the mandates of all entities involved in the implementation of the plan. The plan together with its technical annex and additional information provided (including details on the adjusted mandates for ESV and other implementing bodies) describes how the control system and other arrangements (including audit) will prevent, detect and correct fraud, corruption and conflicts of interest when using funds provided by the RRF.

Several legal acts underpin the Swedish control systems including the administrative procedures Act, budget circular, budget law, public access to documents provisions, as from 2021 the register of public contracts, freedom of whistle-blowers and freedom of press Act,

as well as the public procurement anti-corruption law. Each implementing body has to follow the Internal Audit Ordinance and the Ordinance (2007: 603) on internal governance and control. Since 1999, authorities managing EU funds have worked (and will continue working) closely within the framework of the Council for the Protection of the European Union's Financial Interests (SEFI). The SEFI Council is responsible for coordinating measures within Sweden to prevent fraud and other misuse of EU-related funds.

These ordinances and legal acts are in place to prevent and detect irregularities, fraud, corruption and conflict of interest and to avoid double funding. Taken together, the systems in place appear adequate, on fulfilment of the additional specific milestones such as the one for the ESV authorising it to obtain all necessary data on the achievement of milestones and targets. The Ministry of Finance is responsible for ensuring a central reply to requests for information and access to data on final recipients from information/data provided bythe implementing bodies. Sweden makes use of the central government Accounting system HERMES to capture data on milestones and targets, but does not have a central repository for data on final recipients, which renders it more difficult for the ESV to consolidate the data from the implementing bodies for the purpose of verification of data reliability, double funding, reporting and audits.

Adequacy of arrangements to avoid double EU funding

Several elements of the existing Swedish governance system reduce the risk of double funding. The plan covers the responsibilities of several government councils. Decisions are taken jointly by the government, which means that no government decision can be taken until all relevant ministries have been consulted, and all agree on the content and consequences of the specific decision. The Government decides on the prescriptions for each authority's activities. In addition, the state budget is divided into appropriations and appropriations may not have overlapping activities. Furthermore, there is a good cooperation between the authorities responsible for the implementation of the measures in the plan. Under the Authority's Ordinance, the authorities are to continuously develop their activities and to collaborate with each other and other actors involved to deliver the benefits that can be gained for individuals and for the State as a whole. Nevertheless, an enhanced degree of coordination and demarcation of responsibilities will be required to ensure a coherent implementation of the plan.

For this purpose, managing authorities have been issued specific additional mandates to the implementing bodies responsible for managing and monitoring the use of EU funds in Sweden, in particular RRF funds, through enhanced cooperation. In order to avoid double funding, projects financed by other EU funds must report on any links with other EU programmes and applications must certify that no EU grant has been received to cover the same costs. Applicants must immediately inform the authorities if there are simultaneous applications and grants from different sources covering the same action or the same project.

Where there is a risk of double financing procedures will be put in place and measures taken to ensure that the reforms and investments included in the recovery plan do not finance the same costs as other EU fund and that access to data on final recipients is ensured. As the implementation of the plan is the direct responsibility of the authorities involved, the implementing bodies will be tasked with setting up appropriate systems to avoid double financing and for thorough checks on beneficiaries.

The Swedish internal and external control systems which will be overseen by the ESV, and to which the NAO contributes in its own role, will further reduce the risk of double funding. The authorities responsible for the implementation of the plan are thus judged to be able to comply with the EU acquis on the protection of the Union's financial interests. The specific audit mandate to the ESV includes examining whether established systems and processes contribute to reliable management in accordance with the applicable regulations, which implies that measures shall be in place to prevent and manage fraud, conflicts of interest and double funding, and that reported results are reliable. The arrangements to avoid double funding are therefore assessed as adequate, taking into account the milestone for the audit strategy for ESV.

Legal empowerment and administrative capacity of control function

The plan provides adequate information on all key areas covering the empowerment and administrative capacity of the lead coordinating capacity within the Ministry of Finance and the main coordinating audit and control body (ESV). The plan includes milestones on the formalisation of legal mandates and on adaptations needed of the regulations and missions covering the activities of the implementing bodies. These need to be fulfilled for the control and audit system to be adequate and functioning. Budget reinforcement has been obtained in order for the ESV to cope with the additional tasks.

Due to the legal setup in Sweden, many of the new mandates and legal adaptations for the implementing bodies have been formally adopted by Parliament through the budgetary procedure by the end of 2021.

The arrangements proposed by Sweden 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 conditional on the completion of the additional milestones set. This warrants a rating of A under the assessment criterion 2.10 of Annex V of the RRF Regulation.

4.11 Coherence

The plan is coherent across its components, with consistent reforms and investments. **There are no instances of proposed measures contradicting or negatively affecting each other.** The measures in all components contribute to stimulating the Swedish economy and promoting a green recovery. The reforms underpin and complement the planned investments. The reforms and investments in the plan are coherent and mutually reinforcing. They often aim at achieving the same or complementary objectives for the challenges that are covered in the plan. For example, the measures in component 1 (green recovery) form a framework for a number of other measures in the plan, thereby creating a coherent narrative. The investments concerned contribute to the green transition in the economy and reaching Sweden's greenhouse gas emission targets, including by promoting sustainable transport. Investments in climate-neutral and non-toxic circular solutions throughout the country reduce carbon dioxide emissions, lay the foundation for new jobs and strengthen Sweden's competitiveness. The reform of increased environmental taxes raises the share of environmental taxes, which contributes to climate goals and other environmental goals being achieved. Green transition measures in the plan are in many cases based on digital solutions which also contribute to increasing skills of the workforce and this also contribute to other components.

Components 2 (education and adjustment) and 3 (better conditions for meeting the demographic challenge and ensuring the integrity of the financial system) are closely linked and together contribute to ensuring elderly care and health care of good quality. Component 2 contributes to increasing the availability and capacity of the health care system by ensuring more places in regional health professional capacity, thus enhancing access to care. The measure in component 2 also contributes to facilitating broader structural change, raising the level of competence in the labour force and increasing flexibility in the labour market. They allow for more training places and for more people studying, thereby raising their skills levels as well as for broader opportunities for study financing which supports the investments and reforms in other parts of the Plan.

The measures in component 2 contribute in a coherent way to ensuring welfare, especially for the elderly. Investments are cross-cutting and interconnected, allowing better access to care for vulnerable members of the population., The investments and reforms together contribute to higher-quality care, where new and existing staff can undergo training during paid working hours, and the assistant nurse profession by introducing an additional protected professional title. The reform of extended working life and adjusted age limits in the pension system contributes to securing welfare and to creating space for higher pensions. The measures in the plan also contribute to increased opportunities for education and better job-matching for people that are detached from the labour market. The reform of changes in the labour law and increased opportunities for adjustment means that labour regulations become better adapted to today's labour market while maintaining a basic balance between protection and incentives for work that can be broadly supported by social partners. The combination of increased opportunities for education, adjustment and increased flexibility in the labour market as well as increased opportunities for residence where the jobs are located (Component 4) adds to the coherence of the plan are expected to contribute to better matching in the Swedish labour market. The reforms in the area of money laundering contribute to maintaining a wider sense of trust in society.

The measures to promote the digital transition are coherent. The different work streams to digitalise the economy and the public administration, and to provide workers with digital skills pursue complementary and mutually reinforcing aims. The measures in components 4 (expansion of broadband and digitalisation of public administration) and 2 contribute to the broad promotion of digitalisation, through investments in faster broadband expansion, which improves the digital infrastructure throughout the country. The structural change, especially the digital transformation, places demands on opportunities for retraining when the workforce no longer has the skills that are in demand in the labour market. The measures in component 2 promote the digital changeover by raising digital competence and contributing to the supply of skills. Through increased knowledge and skills of the workforce, the potential of digitalisation can be better utilised, regardless of geographical location.

The combination of measures can positively contribute to giving the whole country the opportunity to grow and to reducing regional disparities. When designing measures for investments in and improving the quality of railways, regional differences and the need to address regional disparities are taken into account. In component 4, the access to digital infrastructure throughout the country is strengthened through faster broadband expansion. The measures in component 2 make a coherent response to strengthening the opportunities for education throughout the country, and regional needs have been taken into account in the design of all measures. In this way, the components thus jointly make up a coherent narrative of promoting regional cohesion, not least via lowering barriers to access work and education.

The measures in components 2 and 4 constitute a coherent response to the challenge of matching problems in the Swedish labour market, while the **measures in component 5** (investments for growth and housing construction) **aim at addressing supply side issues in the housing market** by stimulating increased construction. A well-functioning housing market is a prerequisite for mobility in the labour market, as it means that people can more easily move to where their jobs are and affect the opportunities to participate in education. In that light, given the extent of housing and household-debt related imbalances, the measures in the plan contribute only modestly to their unwinding, however. Broader measures to reduce these imbalances would be conducive to balanced sustainable growth.

Complementarity of measures

The components embody the plan's consistent vision of leveraging the twin transitions in recovering from the Covid crisis. Synergies can be found throughout the Plan between different components, in particular as regards the complementarity of their objectives. In particular, component 1 contributes to the objective of reducing greenhouse gas emissions and the measures therein, with similar and reinforcing objectives, complement each other to help accelerate the green transition in Sweden. Among the specific measures, the Climate and Industry Leaps constitute a major push for the green transition by, respectively, supporting climate investment to address local and regional challenges in reducing greenhouse gas emissions and supporting the large investments in new technology that has not yet been developed or commercialized, which are required for the industry to be able to contribute to climate neutrality. Complementing, the support energy efficiency in multi-dwelling housing will also improve energy efficiency and contribute to the Swedish emission targets.

The coherence within and between components assures that the Sweden's Recovery and resilience plan coherently contributes to the fulfilment of RRF's overall goals. In view of the challenges to be addressed, the Recovery and Resilience Plan constitutes a balanced approach between reforms and investments. Taking into consideration the qualitative assessment of all the components of Sweden's plan, their individual weight and their interactions, the plan contains measures for the implementation of reforms and public investments, which, to a high extent, represent coherent actions. This warrants a rating of A under assessment criterion 2.11 in Annex V to the RRF Regulation.

ANNEX: CLIMATE AND DIGITAL TAGGING TABLE

[Note: While the total cost of the Swedish recovery and resilience plan exceeds the total allocation of non-repayable financial support to Sweden, Sweden 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.]

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 of the RRF Regulation

(Sub-)Measure ID	(Sub-)Measure Name	Budget (EUR m)	Climate		Digital	
			Int. Field	Coeff. %	Int. Field	Coeff. %
1.1.1	Local and regional climate investment – Conversion to renewable energy including bioenergy for heating in industry and agriculture	229	030bis	100%		
1.1.2	Local and regional climate investment – Production of biogas and biofuels	194	030bis	100%		
1.1.3	Local and regional climate investment – Transport (renewable fuel and refuelling points)	140	077	100%		
1.1.4	Local and regional climate investment – Waste (including plastic recycling)	89	045bis	100%		
1.1.5	Local and regional climate investment – Increased efficiency	68	024ter	100%		
1.1.6	Local and regional climate investment – Charging stations for electric cars	58	077	100%		
1.1.7	Local and regional climate investment – Infrastructure	34	077	100%		
1.2.1	Climate investment in the industrial sector focusing on low carbon economy, resilience and adaptation to climate change	244	022	100%		
1.2.1	Climate investment in the industrial sector focusing on circular economy	43	023	40%		
1.3	Energy efficiency in apartment buildings	60	025	40%	033	40%
1.4	Strengthened railway support	148	069bis	100%		

(Sub-)Measure ID	(Sub-)Measure Name	Budget (EUR m)	Climate		Digital	
			Int. Field	Coeff. %	Int. Field	Coeff. %
1.9	Formal protection of forests with high natural values for biodiversity	247	050	40%		
2.3	More study places in higher vocational education	104			016	40%
2.4	Resources to meet demands for education at universities and other higher education institutions	308			016	40%
4.1	Joint public administration digital infrastructure	21			011	100%
4.2	Broadband expansion	464			051	100%
5.1	Investment support for rental housing and housing for students	296	025ter	40%		