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Analysis of the recovery and resilience plan for Austria

Accompanying the document

Proposal for a Council Implementing Decision

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

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1. EXECUTIVE SUMMARY[1]

The Austria economy performed well in recent years but was strongly impacted by the COVID-19 crisis. In 2019, the gross domestic product (GDP) per capita of Austria was 143.7% of the EU average. Austria's real GDP declined by 6.6% in 2020 and, according to the Commission's 2021 Spring forecast, the economy is expected to be 3.4% smaller in 2021 compared to 2019, with a return to pre-pandemic levels expected by mid-2022. The significant fiscal response taken to mitigate the socio-economic effects of the COVID-19 pandemic and the related recession has resulted in a sharp rise of the public deficit and debt. In the Commission's 2021 Spring forecast, the general government deficit is expected to narrow from 8.9% of GDP in 2020 to 7.6% of GDP in 2021 and 3% of GDP in 2022. Meanwhile, after having risen to 84% of GDP in 2020, public debt is projected to edge up to 87.2% of GDP in 2021, before decreasing to 85% of GDP in 2022. The COVID-19 crisis has also substantially affected the labour market, triggering a rise in unemployment despite the extensive use of short-term work. The unemployment rate increased by 0.9 percentage points to 5.4% in 2020. The Commission spring forecast projects the unemployment rate to gradually decrease again, reaching 5.0% in 2021 and 4.8% in 2022.

Austria's recovery and resilience plan has a total value EUR 4.5 billion (approximately 1.1% of 2019 GDP), which is above the non-repayable financial support available to Austria under the RRF Regulation of EUR 3.46 billion (approximately 0.87% of 2019 GDP). Austria is not asking for loans.

The Austrian plan contains a balanced set of mutually reinforcing reforms and investments. It covers four broad areas of relevance to Austria: 1 Sustainable recovery, 2 Digital recovery, 3 Knowledge-based recovery, and 4 Just recovery. The focus of the plan is on the green and digital transition, combining reform measures with large investments into the green and digital transitions, complemented with measures easing the social burden of these transitions. The plan also covers challenges brought about by the COVID-19 pandemic.

The measures in the plan contribute to addressing a significant subset of the country-specific recommendations identified in recent years in the context of the European Semester. Planned changes to the tax system will help reduce Austria's greenhouse gas emissions, while also contributing to shifting taxes away from labour and taking account of ecological and social aspects. The full-time labour market participation of women may benefit from an improved offer of early childcare facilities. The long-recognised challenge related to the gender pension gap is also tackled through related measures. Investments in energy efficiency, renewables, decarbonisation of industry, biodiversity and circular economy, accompanied by related reforms, including the overhaul of the support framework for renewables and the phase-out of oil heating systems, contribute to promoting the green transition. Structural changes simplify the administrative burden for businesses by means of digital single access points, while investments provide for a large-scale increase in digital

[1] Austria submitted its National Reform Programme on 30 April 2021. The information provided in the National Reform Programme is being considered and jointly assessed in this Staff Working Document together with the recovery and resilience plan.

capacities of enterprises. The plan is also consistent with the challenges and priorities identified in the most recent euro area recommendations[2].

The plan also addresses some of the social and economic challenges that have emerged or were exacerbated during the COVID-19 crisis. A series of active labour market policy measures will address the increased need for help to the low-skilled and raise the labour market opportunities of disadvantaged groups. Pupils will be provided with opportunities to participate in additional learning activities allowing them to catch up with learning gaps caused by school closures.

The 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 Regulation (EU) 2021/241, taking the specific challenges and the financial allocation of the Member State concerned into account.

The recovery and resilience plan is expected to ensure that no measure for the implementation of reforms and investment projects does significant harm to environmental objectives within the meaning of Article 17 of Regulation (EU) 2020/852. The assessment has been carried out in compliance with the methodology set out in the Commission's Technical guidance on the application of 'do no significant harm' under the Recovery and Resilience Facility Regulation (2021/C 58/01).

Overall, the recovery and resilience plan contributes to climate objectives through investments corresponding to 58.7% of the financial contribution by the Recovery and Resilience Facility of EUR 3.46 billion, therefore, the climate target of 37% is significantly surpassed. Half of the subcomponents of the Austrian plan include investments that contribute to climate objectives. The measures are in line with the challenges identified in the National Energy and Climate Plan and are expected to contribute to the 2030 energy and climate targets. In particular, the plan focuses on sustainable mobility and greening of buildings, which are among the two biggest greenhouse gas emitters in Austria. The plan will meet relevant environmental objectives through its actions to support biodiversity, the circular economy and climate adaptation. It will help meet the Union's targets for environmental policy and contribute to protecting Austria's richness in biodiversity, natural carbon sinks, and its Natura 2000 network. A dedicated strategy will improve biodiversity-related policies and actions while a new soil protection strategy aims to help reduce land use.

Overall, the recovery and resilience plan contributes to digital objectives through investments corresponding to 52.8% of the financial contribution from the Recovery and Resilience Facility; therefore, the digital target of 20% is largely surpassed. The Austrian plan will contribute to the digitalisation of the country by supporting widespread deployment of Gigabit-capable access networks and by ensuring that currently underserved or disadvantaged and remote areas will be better connected. The measures in the plan are consistent with other Austrian frameworks setting out the digital targets for 2030 and 2050, such as the Broadband strategy 2030 (*Breitbandstrategie* 2030) or the Digital Action Plan

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

Austria (*Digitaler Aktionsplan Austria*). Challenges that have been highlighted due to the COVID-19 pandemic include the difficulty to provide digital education to all students in times of lockdown. The Austrian plan is expected to ensure that pupils are equipped with relevant digital devices, and to also improve their digital skills allowing for better use of digital means and methods in teaching and learning settings.

The plan includes a significant number of reforms and investments with the potential to have a lasting impact and support lasting structural changes. These include the reform of the health care system, giving more weight to primary health care, and the support to mother-child health care. Other measures included in the plan are furthermore expected to reduce the administrative burden of businesses and to contribute to the digitalisation of the public administration. The plan contains several investments that are expected to have a lasting impact in particular in relation to the green and digital transitions. The measures to increase the use of renewable energy sources include shifts to environment-friendly transport and heating systems. Building renovations will reduce their energy use and the related emissions. Investments in high-capacity broadband and other infrastructure measures will facilitate the uptake of digital technologies and support private households, the business sector, and the public administration in making best use of technological advancements.

The overall implementation of the Austrian plan will be monitored by the Austrian Ministry of Finance. Appropriate arrangements have been put in place setting out which ministries and agencies will be in charge of the implementation, monitoring, and reporting of the measures.

The milestones and targets of the Austrian 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 generally 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 Austrian 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. At the level of individual cost estimates, reasonability is achieved if the calculations behind the cost estimate are comprehensible and based on sound underlying assumptions. In the Austrian plan, a majority of the individual cost estimates are assessed to be reasonable to a high extent. Plausibility is achieved if 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. The majority of cost estimates in the Austrian plan is deemed plausible to a high extent. 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 proposed in the recovery and resilience plan are adequate to prevent, detect and correct corruption, fraud and conflicts of interest when using the funds provided under that Regulation, and the

arrangements are expected to be effective in avoiding double funding from other Union programmes. The Austrian plan includes a detailed description of the control system and the arrangements put in place to ensure the implementation of the measures in line with the applicable rules and regulations. The system is based on robust processes and structures, with the Ministry of Finance being the central coordinating body.

Summary Assessment

(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 COVID-19 pandemic and related containment measures strongly affected Austria's economy in 2020. Overall, GDP fell by 6.6% in 2020, the largest decline since 1945. In line with the stringency of containment measures, the sharp fall in GDP in the first half of 2020 was followed by a strong rebound in the third quarter. However, a resurgence in infections in autumn sparked another lockdown, which led to a 2.7% decline in GDP in the fourth quarter of 2020. The nationwide lockdown was eased as of April 2021 with further substantial easing of restrictions as of mid-May. Accordingly, after near stagnation in the first quarter, the economy is projected to resume its recovery in the second quarter of 2021 and to accelerate over the summer, as containment measures and travel restrictions continue to be relaxed and more Austrians get vaccinated. The Commission Spring forecast projects GDP to grow by 3.4% in 2021 and 4.3% in 2022. A return to pre-pandemic levels is expected by mid-2022. The macroeconomic and fiscal outlook continue to be affected by high uncertainty related to the COVID-19 pandemic and its economic consequences.

Tourism-related services were strongly affected and on the demand side private consumption, equipment investment and the export of services saw the largest decline. The country's large tourism industry, which contributed to 7.3% of GDP in 2019, was particularly affected, with a drop of 35.9% in nights spent in 2020 and an almost complete loss of the winter tourism season 2020-2021. This led to a strong fall in services exports (-17%). Among the main economic sectors, the construction sector was the least affected, declining by 2.3% in 2020. On the demand side, private consumption dropped significantly (-9.6%) due to restricted consumption possibilities due to the closure of non-essential shops, restaurants and personal services. This led to a strong increase in the savings rate, while investment in equipment plummeted (-11%). Headline inflation was subdued in 2020, at 1.4%. It is set to rise in 2021 to 1.8%, before easing somewhat to 1.6% in 2022.

The significant fiscal response taken to mitigate the socio-economic effects of the COVID-19 pandemic and related recession has resulted in a sharp rise of public deficit and debt. The crisis brought an abrupt end to the period of improving public finances in Austria. From a surplus of 0.6% of GDP in 2019, the general government balance turned to a deficit of 8.9% of GDP in 2020, as a result of the major fiscal policy measures put in place to mitigate the socio-economic consequences of the pandemic. Based on the Commission Spring forecast, the general government deficit is expected to narrow to 7.6% of GDP in 2021 and 3% of GDP in 2022. Driven by these developments, public debt is projected to have increased to about 84% of GDP in 2020, to edge up to 87.2% of GDP in 2021, before decreasing to 85% of GDP in 2022.

The COVID-19 crisis has substantially impacted the labour market, triggering elevated levels of unemployment despite the extensive use of short-term work. The Eurostat unemployment rate increased by 0.9 percentage points to 5.4% in 2020. Short-time work schemes helped mitigate the effect of the economic downturn on the labour market, leading instead to a strong drop in hours worked. At the same time, the proportion of the population classed as economically inactive also rose, especially in sectors that were closed by containment measures, making it not possible to search for work. In contrast, the national

registered unemployment rate saw a strong rise, from 7.4% in 2019 to 9.9% in 2020, the highest yearly rate since the 1950s. The labour force and the number of employed persons decreased by 0.4% and 1.7% respectively in 2020. However, labour market utilisation fell at a much steeper pace: the quarterly change between Q4 2019 and Q1 2020 amounted to -7.9% in Austria compared to -4.6% at EU level. With a decline of 12.4%, Austria is among the countries where women were the most affected in terms of total actual working hours in Q4 2020 (compared with the pre-COVID situation in Q4 2019). Based on the Commission spring forecast, the unemployment rate is projected to gradually decrease, reaching 5.0% in 2021 and 4.8% in 2022.

The macroeconomic scenario of the recovery and resilience plan is more cautious for 2021 and similar to the Commission Spring forecast for 2022. The macroeconomic scenario underpinning Austria's Stability Programme and the plan's projects domestic demand to be the main driver of the economic recovery. Growth is projected to improve from 1.5% in 2021 to 4.7% in 2022 and to gradually ease afterwards to 1.8% in 2024. Austria projects the unemployment rate at 5.1% in 2021 and 4.8% in 2022 with a further improvement to 4.5% in 2024. Inflation is expected to increase to 1.8% in 2021 and to remain around 1.7%-1.8% in 2022-2024. The recovery and resilience plan is based on a scenario that assumed strict containment measures for the whole of Austria in April 2021 and only a gradual relaxation afterwards. However, containment measures were eased in parts of the country in April. The forecast of the recovery and resilience plan was also produced before the government announced its relaxation plan. Both mainly explain the differences between the recovery and resilience plan and the Commission projections, with the recovery and resilience plan forecasting 1.5% growth in 2021 and the Commission 3.4%. The Commission projects stronger growth in both private consumption and investment in 2021, in line with the assumptions reflecting more recent information of a faster planned easing of containment measures. As regards the external environment, the recovery and resilience plan forecasts a lower contribution to growth from net exports in 2021 and a more positive contribution in 2022. On the labour market, the Commission projects a somewhat more favourable picture in 2021 while the recovery and resilience plan is more favourable for 2022. Inflation projections are similar for 2021 and lower in the Commission forecast for 2022. Overall, the programme's macroeconomic assumptions are cautious for 2021 and plausible thereafter.

Along with the more modest economic recovery, the recovery and resilience plan and the Stability Programme project a less favourable development for budgetary developments compared to the Commission 2021 Spring forecast. According to the Stability Programme, the general government deficit is expected to narrow from 8.9% of GDP in 2020 to 8.4% and 4.3% of GDP in 2021 and 2022, respectively. The debt ratio is expected to increase from 83.9% of GDP in 2020 to 89.6% of GDP in 2021 before decreasing to 88.1% of GDP in 2022.

Austria entered the COVID-19 crisis with no identified macroeconomic imbalances, but with vulnerabilities linked to the housing market. While private sector debt was declining before the crisis, it is expected to have increased again in 2020, due to the COVID-19 induced decline in GDP. However, the growth of credit to the domestic private sector decelerated compared to pre-crisis levels. Real house prices continued to grow and accelerated again in 2020, especially for single-family housing, reflecting changing preferences due to the increased reliance on homeworking. However, given the parallel decrease in disposable

incomes, signs for overvaluation have increased. While warranting monitoring, the price increases do not appear to be credit-driven, as loans for house purchases decelerated in 2020. The banking sector proved resilient so far and helped mitigate the impact of the crisis. The Non-Performing-Loans (NPL) ratio dropped further in 2020 to 2%, as government measures helped support companies during the crisis. However, as the policy measures are expected to be gradually withdrawn on the back of the economic recovery, NPLs are expected to rise again.

The COVID-19 pandemic is likely to increase the risk of social exclusion of vulnerable groups. The overall social situation was improving until the outbreak of the COVID-19 pandemic, and policies to reduce poverty and social exclusion were generally effective. This is also reflected in the percentage of people at risk of poverty and social exclusion, which was at 13.3% in 2019 far below the EU average of 21.1%. Emergency policy measures taken by the Austrian government (e.g. short-time working scheme, one-off payments for unemployed and children) cushioned substantially against the income losses brought about by the COVID-19 crisis, especially for poor households. Overall, about 88% of the COVID-19-related income shock was absorbed by the Austrian tax-benefit system[3]. However, the current crisis may deteriorate the situation of vulnerable groups such as atypical workers, foreign-born adults, long-term unemployed and families with three or more dependent children as well as single-parent families who risk falling behind. For example, the at-risk-of-poverty rate for children of low-skilled parents stood at 76.7% in 2019 (EU-27 average 61.8%) and reached 89.5% in 2020. The at-risk-of-poverty rate of unemployed stood at 43.3% in 2019 (EU-27 average 49 %) and increased substantially to 48% in 2020. Overall, the pandemic will put certain groups at greater risk of poverty and social exclusion than before, in particular the self-employed.

Table 2.1: Comparison of macroeconomic developments and forecasts

	2019	2020		2021		2022		2023	2024
	COM	COM	RRP	COM	RRP	COM	RRP	RRP	RRP
Real GDP (% change)	1.4	-6.6	-6.6	3.4	1.5	4.3	4.7	1.6	1.8
Employment (% change)	1.1	-1.7	-1.7	1.2	0.8	1.3	2	0.6	0.6
Unemployment rate (%)	4.5	5.4	5.4	5	5.1	4.8	4.8	4.6	4.5
HICP inflation (% change)	1.5	1.4	1.4	1.8	1.8	1.6	1.8	1.7	1.7
General government balance (% of GDP)	0.6	-8.9	-8.9	-7.6	-8.4	-3	-4.3	-3	-2.5
Gross debt ratio (% of GDP)	70.5	83.9	83.9	87.2	89.6	85	88.1	88.1	87.6

Source: Commission Spring Forecast 2021 (COM); Recovery and resilience plan (RRP)

[3] See Christl, M., De Poli, S., Kucsera, D. and Lorenz, H. (2021), "COVID-19 and (gender) inequality in income: the impact of discretionary policy measures in Austria", JRC Working Papers on Taxation and Structural Reforms, 05-2021 (forthcoming).

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

While the Austrian economy has performed relatively well in recent years, a number of challenges and structural obstacles to more sustainable and inclusive long-term growth remain and have become more pressing as a result of the pandemic and related recession. Austria's policy response was effective in mitigating the socio-economic fallout of Covid-19 crisis. However, further efforts need to be made to put Austria on a path for more sustainable and inclusive growth. This will require tackling a number of country specific challenges and structural obstacles related to the twin transition.

Austria faces challenges related to the green transition and digital transformation. Without taking further measures, Austria is unlikely to achieve its greenhouse gas emission targets and reach its government's target of climate neutrality by 2040 (see Section 2.3.1). The weak uptake of digital technologies especially among SMEs, combined with further investment needs and digital skills shortages, represent further challenges (see Section 2.3.2).

Smart, sustainable and inclusive growth

Austria's scope for comprehensive tax reforms to boost fairness, inclusive growth and environmental sustainability could become a key element of the country's policy agenda to drive post-crisis economic recovery. Despite recurring tax relief reforms (in 2005, 2010, 2015 and 2020), Austria remains a high-tax country whose tax structure is relatively detrimental to sustainable and inclusive growth in international comparison. The tax mix puts a high burden on labour, while the revenue potential especially of wealth-related and environmental taxes remains largely untapped. Consumption taxes could be made more efficient, e.g. by overhauling the system of reduced value-added tax rates and bringing taxes on tobacco and alcohol and environmental taxes more in line with EU averages. Additionally, increasing the level and efficiency of energy taxes by introducing a price for CO_2 will be key to reducing emissions to achieve EU and national climate targets.

The current labour market situation calls for appropriate measures to prevent a rise in structural unemployment, especially among vulnerable groups, facilitate good job matching, and improve female labour market participation. Employees in sectors directly affected by the containment measures, such as the tourism-sector and personal and other services, face higher unemployment risks, as do vulnerable groups (older workers, people with migrant background, labour market entrants and the low skilled). Appropriate measures to ease the labour market re-integration of people at risk of remaining unemployed for a longer time, including through developing digital skills will be crucial for an inclusive economic recovery. An increased offer of quality childcare would help women to combine working life with care responsibilities, a challenge that has aggravated during the crisis. Addressing this would have the potential to raise the labour market participation of women in particular. Tailored adult learning and reskilling measures may positively affect labour market attainment of older workers, workers with migrant background, refugees and low skilled.

Expected shifts in the labour market will require generally more attention to reskilling and upskilling as well as related adaption in the education sector[4].

Investments to support digitalisation and innovation, coupled with improved business regulation are Austria's main levers for boosting productivity growth. Potential growth has been on a long-term downward trend in Austria in recent years. The slowdown has been largely driven by the declining trend in total factor productivity growth and the fall in hours worked, together with projected lower growth in the working-age population. Additionally, Austria needs to promote business digitalisation especially among SMEs in order to ensure long-term resilience.

Austria's future competitiveness also depends on turning R&D investments into proportional innovation outcomes. Austria's research and development (R&D) intensity has been one of the highest in the EU but the country has lagged behind innovation leaders in terms of innovation outcomes, such as fast-growing enterprises or knowledge intensive exports[5]. With many businesses' research budgets now under pressure, it is even more important to translate Austria's R&D efforts into cutting-edge innovation. Increased financial resources, in particular in environmental and energy research and innovation will be crucial to prepare Austria for the upcoming challenges related to the green transition.

A high administrative and regulatory burden on firms discourages investment, in particular among SMEs and company growth needs more support. Lowering the administrative burden on businesses, including through efficient digital public services, would provide immediate, tangible relief without burdening the taxpayer. Reducing restrictive regulation in the services sector (e.g. restrictions on exercising certain professional services and operational restrictions in the retail sector) could boost investment and competition among service providers, which in turn could lower input costs for manufacturing firms. The insolvency framework should be geared towards insolvency prevention but also to speedy unwinding processes and allowing for a 'second chance'. Austria has one of the lowest proportions of high growth firms active in innovation in the EU. In 2017 around 14% of high-growth firms in Austria were active in knowledge intensive services in Austria compared to 19% in the EU27[6]. There is scope to further support entrepreneurship, including by fostering innovative technologies and access to capital for starting and scaling-up businesses. Venture capital investments declined considerably in the last five years (around 40% based) and there is evidence that the number of early and late-stage deals declined more than the number of seed deals. The capacity of the Austrian public administration to apply EU single market laws

[4] See also Böheim, R. and Christl, M. (2021). "Mismatch unemployment in Austria: The role of regional labour markets for skills," JRC Working Papers on Labour, Education and Technology 2021-08.

[5] See, among others, 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, JRC. Publications Office of the European Union, Luxembourg, 2021.

[6] See Benedetti Fasil, C., Del Rio, J.C., Domnick, C., Fako, P., Flachenecker, F., Gavigan, J., Janiri, M., Stamenov, B. and Testa, G., High Growth Enterprises in the COVID-19 Crisis Context, EUR 30686 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-37269-1, doi:10.2760/63402, JRC124469 for an in-depth discussion of the COVID impact on high-growth enterprises in EU countries.

could be improved by strengthening the staffing of national SOLVIT centres[7], which provide solutions related to problems in the application of EU rights.

Social and territorial cohesion

Austria performs relatively well on the Social Scoreboard supporting the European Pillar of Social Rights, but the pandemic could exacerbate existing challenges. The social situation has been improving before the pandemic. Spending on social protection is among the highest in the EU and social transfers are effective in reducing income inequality and protecting people from poverty and social exclusion. However, vulnerable groups remain and while in 2019, the share of people at risk of poverty or social exclusion fell to 16.9%, it again increased to 17.5% in 2020 due to the pandemic. Although Austria has one of the highest coverage rates of unemployment benefits for the short-term unemployed, marginally employed people may suffer an increasing risk of poverty during pandemic. In addition, the social situation continues to vary significantly across regions. While the share of people at risk of poverty or social exclusion decreases in cities it has increased in rural areas. Safeguarding territorial cohesion in future will also imply to offer favourable perspectives to people in rural areas, including remote ones.

Economic disparities between Austrian regions are among the smallest in the EU and have narrowed steadily, yet the impact of the crisis remains to be seen. Economic growth and labour market developments differ between the West of Austria, which shows a higher GDP per capita and lower unemployment rates, as compared to the East and South, with Vienna taking a special position. Nevertheless, economic disparities between Austrian regions are among the smallest in the EU and have narrowed steadily. However, significant regional disparities persist in R&D expenditure and broadband coverage in rural areas, increasing the divide in digitalisation and innovation capacities between regions.

Health, and economic, social and institutional resilience

The coverage provided by the Austrian healthcare system is high but public health care spending continues to pose a challenge for fiscal sustainability in the medium and long term. The Austrian healthcare system has so far dealt successfully with the COVID-19 pandemic, by making substantial funds available to purchase equipment and supplies, reinforcing laboratory capacity, and strengthening staffing capability. However, primary health care has come under exceptional pressure from an unprecedented increase in the need for teleconsultations, medical appointments and requests. Expanding primary and ambulatory care services with a focus on health promotion and disease prevention would therefore help further improve population health and help Austria master the pandemic. Moreover, further expanding primary care could also help cushion the impact of the expected wave of retirements of general practitioners and help improve efficiency and the fiscal sustainability of the health care system. According to the 2021 Ageing Report (AWG reference scenario), the

[7] The Solvit network is a body funded by the European Commission to assist citizens and businesses to ascertain their EU rights in cases where a dispute has risen between a citizen or a company and an official body of a Member state of the European Union. There is a Solvit centre in every member state (as well as in the EEA Member States Norway, Iceland and Liechtenstein).

share of GDP spent on public health care is projected to increase by 1.2 percentage points from 6.9% in 2019 to 8.1% in 2070, as compared to an EU average increase of 0.9 percentage points. The over-utilisation of hospital care has been identified as the key driver of this growth, which makes the timely implementation of existing reforms (e.g. the implementation of a 'target-based governance' system, the 2017 Primary Health Care Act, and the merger of social health insurance funds) all the more important.

While risks of fiscal stress appear to be contained in the short and medium term, Austria continues to have a medium fiscal sustainability risk in the long term. This risk is due to the projected increase in public expenditure on pensions, healthcare and long-term care. Given the projected increase of public healthcare expenditure, the thorough implementation of ongoing structural reforms remains important provided the pandemic continues to be effectively dealt with. For long-term care, discussions on a comprehensive reform are ongoing. On pensions, the Austrian pension system compares well in terms of overall pension adequacy but public pension expenditure is high in comparison to the EU average. While adjusting the statutory retirement age has been repeatedly ruled out for the ongoing legislative period, there is still room to incentivise longer working lives by making early retirement less financially attractive.

Austria's fiscal federalism favours the perception of soft budget constraints at the subnational level, providing few incentives for efficient public spending. Instead of relying on tax autonomy, subnational budgets are fed by a complex system of tax sharing, intergovernmental transfers and cost bearing, especially at the level of the *Länder*. In 2018, some 83% of total tax revenue was shared across different levels of government (vertical equalisation) and across entities of the same level (horizontal equalisation). At each distributional level, a variety of allocation formulas is applied, the most important one being fixed percentages of historical revenue shares and weighted population shares. This makes the system highly complex and opaque and blurs the link between tax burden and expenditure, making it difficult for individuals to hold their subnational government accountable.

As new priorities have emerged, spending reviews are a crucial tool for targeting public expenditure towards them. Public spending in the context of the COVID-19 pandemic and related recession should be aligned with and complemented by spending for the green and digital transition. To this end, revamping the process of spending reviews takes centre stage. This would require Austria to scrutinise expenditure allocations against the priorities mentioned above to generate further efficiency gains that could be redirected towards these more pressing spending needs. Given the ambition of the exercise, such reviews could be targeted to some specific sectors (health, energy, investment) or could be comprehensive but phased in over two to three years.

In terms of financial stability, the banking sector has remained robust and weathered well the challenges posed by the pandemic. The Austrian banking sector has increased its resilience over the last couple of years, as it has managed to unwind past vulnerabilities and strengthened its capital buffers and liquidity position. Like other banking sectors in the EU, the Austrian banking sector has benefitted from the public measures supported by the authorities to support households and companies, in particular, loan moratoria and public guarantee schemes. Banking sector profitability has come under pressure due to the increase in loan-loss provisions and the pressures on net interest income. The current developments

underscore the need for further banking sector consolidation to increase efficiency and maintain the profit generation capacity of banks, including in the current low-interest environment. The access of Austrian companies to non-bank financing has remained subdued and requires renewed impetus.

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

Existing inequalities in the educational system linked to socio-economic and migrant backgrounds were exacerbated during the COVID-19 crisis especially during distance learning. To ensure equal access in education irrespective of the socio-economic background, the recovery strategy should improve access to inclusive, good-quality early childhood education and care as it helps reduce social disadvantages. Differences in conditions during home schooling and in access to digital equipment and education during the COVID-19 crisis led to further digital and educational inequalities, leaving disadvantaged groups in Austria further behind. There is a need for better support for disadvantaged pupils, be it during distance learning or at school, and linked to this more differentiated funding of schools. More generally, digital education needs to be improved at all levels of formal education, including through providing appropriate infrastructure and devices, digital equipment for disadvantaged learners, teacher training and digital learning content (see Section 2.3.2).

2.3 Challenges related to the green and digital transition

An overarching objective of the Recovery and Resilience Facility is to support the twin transition[8]. Austria's greenhouse gas emissions are still well above EU average and more efforts are needed to achieve carbon neutrality, while the distance to the best performing countries in the digital transition has increased, as measured in the European Commission's assessment of Austria's 2020 National Energy and Climate Plan (NECP) and the 2020 Digital Economy and Society Index (DESI). Austria will need to increase its ambition to reduce its greenhouse gas emissions and achieve carbon neutrality as well as to join the group of leading countries in the digital transition. This section describes where Austria stands in achieving targets related to the green and digital transitions.

2.3.1 Green dimension

The recovery and resilience plan should contribute to the green transition and at least 37% of the financial allocation needs to contribute to climate objectives. The measures in the plan are expected to contribute to achieving the EU's 2050 climate neutrality objective, and the 2030 energy and climate targets, taking into account Member States' national energy and climate plans. They should also contribute to meeting environmental targets for waste, water, pollution control, sustainable mobility, biodiversity protection and restoration, marine and water resources, and support the transition to sustainable food systems as well as to a circular economy as appropriate, while ensuring that nobody is left behind.

[8] The Regulation states that the Facility should support the green transition towards achieving the EU's 2030 climate targets and complying with the objective of EU climate neutrality by 2050. It should also support the digital transition. In this regard, the (proposed) Regulation sets a binding target that the measures in the plan shall contribute at least 37% of the plan's total allocation to contribute to climate mainstreaming. It also sets a binding target that the measures in the plan must contribute at least 20% of the total allocation to contribute to the digital transition or the challenges resulting from it.

Greenhouse gas emissions

Austria's greenhouse gas emissions are still above EU and national targets. Total greenhouse gas (GHG) emissions are above 1990 levels, while they have fallen by a quarter in the rest of the EU over the same period. Per capita GHG emissions also remain above the 2019 EU average. In recent years, emission reductions in industry have been offset by increases in final energy consumption in buildings and transport. Prior to the COVID -19 pandemic, Austria risked missing its 2020 mandatory emissions reduction target and was also not on track to reach the 2030 target. Austria's NECP identifies major challenges in reaching the 2030 target for GHG emissions not covered by the EU Emission Trading System (ETS). Austria's transformation to a climate neutral economy will require sizeable private and public investment over a sustained period. Without further measures, Austria's ambitious goal to become climate-neutral by 2040 is unlikely to be achieved.

Reaching EU and national climate targets will require broadening and improving the pricing of GHG emissions to accelerate the green transition. Diesel and petrol tax levels in Austria (including VAT) are among the lowest in the EU. Climate mitigation would benefit from a faster phase out of subsidies and incentives that are counterproductive to energy and climate targets. Broadening and improving the carbon pricing in polluting sectors not covered by the EU ETS will be key for emission reductions. The transition to climate neutrality is a challenge in particular for regions in which carbon-intensive industries play a key role for employment.

Reducing emissions related to transport is key for Austria's shift towards climate neutrality, and for meeting air quality standards. The share of transport-related emissions (mostly road, excluding aviation) rose steadily since 1990, increasing their share in Austria's total GHG emissions from 18% to 30% (in 2019), with air quality standards remaining a concern. According to Austria's NECP, the transport sector has the greatest potential for GHG emission reduction (7.2 million t CO_2eq by 2030 compared to 2016). Austria is shifting transalpine transport to rail, but similar efforts are needed for other modes of transport. In particular, climate mitigation would benefit from additional investment in low and zero-emission vehicles and sustainable urban mobility.

The building sector is an important emitter in Austria, which maintains an important potential for emissions reduction. Austria has a quantitative target for further emission reductions also in the building sector (3 Mt CO_2eq between 2016 and 2030). The more efficient use of building materials in construction and renovation (circular economy) would contribute to a further reduction in GHG emissions and benefit environmental targets.

Renewable energy

Austria is on track to meet its EU renewable energy target, but significant investment is required to reach Austria's objective of 100% renewable electricity consumption by 2030. To decarbonise its electricity system, Austria needs to install additional renewable energy generation of 27 terawatt hours annually. To this end, the draft Renewables Expansion Law[9] pursues the revision of the national support system for renewable energies. Achieving

[9] Notified as State aid subject to any changes that may be required to ensure compliance with State aid rules.

this goal will also require a substantial increase of renewable energy[10] in the heating and cooling and transport sectors. It is therefore important to finalise and implement the renewable heating strategy, as well as to promote e-mobility and the use of renewable and low carbon fuels.

Energy and resource efficiency

Austria is not on track to meet its energy efficiency target, but further efforts are planned. As reflected in the final NECP, for energy efficiency, the Austrian contribution is translated into a range of 28.7-30.8 million tons of oil equivalent (Mtoe) for primary energy consumption and 24.0-25.6 Mtoe for final energy consumption[11]. These targets are low in ambition. The NECP recognises the 'energy efficiency first' principle and provides elements on energy efficiency of buildings. Austria's 2020 Long-term renovation strategy sets a clear list of milestones until 2050, expressed in GHG emission and estimates that the measures are adequate to achieve the envisaged 80% decarbonisation of the buildings stock. The strategy emphasises the phasing out of coal and oil for heating purposes and addresses building renovation with a comprehensive mix of regulatory requirements, fiscal and economic incentives, and information measures[12].

Energy system infrastructure

The energy system infrastructure needs to be adapted to the needs of the green transition. The planned increase in the share of renewable energy sources will require a higher degree of resilience and flexibility for the national energy system. Significant investment in storage infrastructure, transmission and distribution networks is needed to support the transformation of the energy system.

Greening the tax system

Austria has considerable scope for comprehensive tax reforms to foster fairness, inclusive growth, and environmental sustainability. Increasing the level and efficiency of Austria's energy taxes also by introducing a price for CO_2 is key to reducing emissions. As announced in the government programme, Austria is planning to green its tax system. While several measures of the first part of an eco-social reform have been adopted, including (i) an extension of the commuters' tax allowance for the use of public transport and bicycles, (ii) the exemption of renewable electricity produced by railway companies from network charges, (iii) the harmonisation of the air ticket charge, and (iv) a reform of the motor vehicle registration tax with a stronger link to CO_2 emissions, additional measures such as those to

[10] The NECP specifies the national contribution to the 2030 EU renewable energy target with a renewable share of 46-50% of gross final energy consumption in 2030. See 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, EUR 30487 EN, Publications Office of the European Union, Luxembourg, 2020, ISBN 978-92-76-27013-3, doi:10.2760/678371, JRC122862.

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

[12] 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, EUR 29605 EN, Publications Office of the European Union, Luxembourg, 2019, ISBN 978-92-79-98727-4, doi:10.2760/973672, JRC114200.

counteract '*Tanktourismus*', to green the existing truck toll and to abolish company car privileges are still missing.

Green budgeting

Making use of green budgeting can contribute to delivering on national and international commitments for climate change and environmental protection. Evaluating the environmental impact of budgetary and fiscal policies and assessing their coherence with strategic objectives can help make governments more accountable and therefore improve compliance with central environmental and climate goals. So far, Austria makes no use of green budgeting practices.

Circular economy

Efficient use of resources, including natural capital, and developing eco-innovation is key to boosting competitiveness and building open strategic autonomy, while minimising the environmental impact. Through further regulatory measures and financial incentives, Austria could promote sustainable product design, resource efficient production processes, digital solutions, industrial symbiosis, remanufacturing in key value chains, and alternatives to unsustainable extraction of raw materials, and new circular business models. There is also scope to shift reusable and recyclable waste away from incineration, including through economic instruments, to ensure that post-2020 recycling targets, in particular on plastics, are met. Investments in eco-innovation would trigger productivity growth while reducing Austria's ecological footprint. Further investments are needed to maintain Austria's leading position in environmental technology.

Biodiversity protection and restoration

Protecting and restoring biodiversity and healthy ecosystems is key to boosting resilience and will help meet climate targets. In terms of biodiversity and ecosystem health, Austria presents a mixed picture. It is rich in biodiversity, as reflected in the above-average size of the Natura 2000 network. With around a quarter of its utilised agricultural area devoted to organic farming, which contributes to sustainable food framework and provision of eco-system services, Austria is among EU frontrunners. At the same time, many protected habitats and species remain in an unfavourable conservation status, with further recent declines being reported[13]. Intensive land-take and expanding urban sprawl remain a source for concern. In July 2020, Austria submitted its prioritised action framework (*PAF*) listing priority conservation and restoration measures for rivers, forests and peat bog habitats to reverse this decline and to ensure a full implementation of the EU nature rules. Fully implementing these measures would not only significantly improve biodiversity, but also contribute to climate mitigation and adaptation.

Average temperature in Austria rose by around 2°C since the beginning of industrialisation, increasing the need for adaptation to climate change. Accounting for 58% of natural carbon storage in Austria, forests can play a key role in climate mitigation and adaptation. However, climate-change-induced extreme weather events and pest infection, which particularly affect monoculture ecosystems, threaten their resilience.

[13] Report on the State of Nature in the EU, European Commission 2020.

The table below gives an overview of Austria's objectives, targets and contributions under Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action.

Table 2.3.1: Overview of Austria's objectives, targets and contributions under Regulation (EU) 2018/1999

	National targets and contributions	Latest available data	2020	2030	Assessment of 2030 ambition level
	Binding target for greenhouse gas emissions compared to 2005 under the Effort Sharing Regulation (%)	11.0%	16.0%	36.0%	As in ESR
	National target/contribution for renewable energy: Share of energy from renewable sources in gross final consumption of energy (%)	33. 6%	34.0%	46.0%-50.0%	Adequate (46% is the result of RES formula)
	**National contribution for energy efficiency**				
	Primary energy consumption (Mtoe)	32.2%	31.5%	30.8%	low
	Final energy consumption (Mtoe)	28.3%	25.1%	25.6%	low
	Level of electricity interconnectivity (%)	15.3%	10.0%	15.0%	N.A.

Source: Assessment of the final national energy and climate plan of Austria, SWD (2020) 919 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 sector (including public administration, accessible 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.

Austria ranks 13th among EU Member States in the DESI 2020[14]. While Austria remains slightly above the EU average, the gap with the best performing countries has increased. The 2020 'Digital Action Plan Austria' formulates a strategic framework for digitalisation, emphasising Austria's long-term target to become a 'Digital Responsible Society'.

Higher levels of digital skills and digital learning help supporting the recovery. Thirty-four percent of the Austrian population between 16 and 74 years do not have basic digital

[14] DESI is the main analytical tool of the European Semester on digital. DESI provides the baseline of Member States digitalisation and identifies the main challenges that will need to be addressed.

skills[15]. There is a need to improve at least basic digital skills of the population through equal access to education and upskilling and reskilling measures. Digitalisation of school education is a major priority, requiring significant investments in connectivity, digital devices, digital learning content and digital skills training for teachers. In 2020, the proportion of ICT specialists in the workforce accounted for 4.5%, slightly higher than the EU average of 4.3%[16]. However, Austrian businesses still lack staff with the right digital skills. Therefore, Austria has a need to incentivise and invest in the up- and reskilling of its labour force, increase the number of digital experts in all disciplines and focus on increasing the workforce potential through inclusion to catch up with the best-performing countries.

The weak uptake of digital technologies and business models among smaller companies represents a bottleneck for productivity growth. Austria performs below the EU average as regards the integration of digital technologies by businesses. Austrian companies still do not take full advantage of the use of digital technologies such as cloud services or big data, despite a recent substantial increase in the percentage of companies using social media and selling online. Lack of skilled staff is a bottleneck for further growth. It is also important to raise awareness among SMEs of the relevance of digitalisation of their business processes and products to reap the full range of benefits from adopting digital technologies.

Austria's performance in connectivity is currently below EU average, particularly for fixed very high-capacity networks. Although the country has a high level of mobile coverage, it scores below the EU average for fixed very high-speed broadband coverage and take-up. Austria has become a pioneer in the roll-out of 5G, and consumers already have access to commercial 5G offers. The coverage with fixed very high-capacity networks, however, is low with 39% of the households covered in 2020. This is below the EU average of 59%[17]. Investment to increase Gigabit-capable connections needs to rise substantially to bridge the gap between Austria and the rest of the EU. The acceleration of the roll-out of rural broadband would enable further progress in digitalisation. Additional efforts and initiatives are required to bring Gigabit-capable connections to underserved rural areas, as current measures will not be sufficient to achieve the EU-wide 2025 Gigabit targets.

Digital public services are the DESI dimension for which Austria performs best. Austria has taken many targeted measures in digital public services to deal with the COVID-19 crisis. Austria has traditionally been a front-runner in federal e-government services and scores above the EU-average in providing digital public services to its population. Digitalisation is the main objective of the 'Digital Austria' initiative to consolidate Austria's role as a leading digital nation to guarantee and expand prosperity, equal job opportunities, as well as the quality of life in the long term. Continued efforts by the Austrian public sector to meet the legal requirements of the Web Accessibility Directive will ensure their efficient and effective delivery. Overall, the Austrian public sector is digitally advanced compared to its EU peers, and an additional focus on open data and e-government users will help Austria join the most advanced countries in the DESI ranking for digital public services.

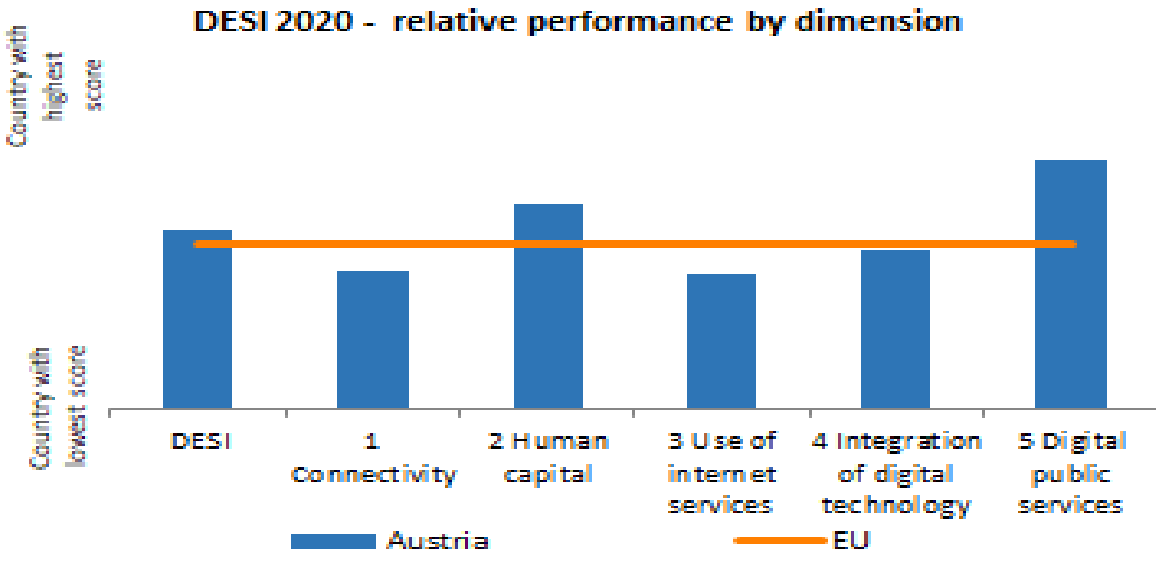
[15] Eurostat – Community survey on ICT usage in households and by individuals.
[16] Eurostat – Labour force survey.
[17] Broadband coverage in Europe studies for the European Commission by IHS Market, Omdia and Point Topic.

Digital-related investment in R&D is an important driver for the digital and green transformation. The recently published federal strategy for research, technology and innovation 2030 puts emphasis on the need to strengthen R&D of (key) technologies in digitalisation, in particular on contributing to the development of new digital products and services and on supporting the digital transformation of the economy, such as Artificial Intelligence, High Performance Computing, cybersecurity and blockchain. To boost the Industry 4.0 transition, Austria requires R&D efforts in several areas such as virtualisation, sensor systems, software engineering, cyber-physical systems.

Microelectronics is a key enabling technology for the digital transformation of all economic and societal sectors, as well as for the achievement of the European Green Deal objectives. The supply of clean and renewable energy, of smart and sustainable mobility, resource-efficient buildings and environment-friendly agriculture depend on power electronics, integrated sensors and energy-efficient processors. Hence, Austria needs to further strengthen its research and innovation ecosystem in semiconductor technologies for digitalisation, including components and systems for power management, smart sensing, and data processing.

Digitalisation is a key enabler for the green transition in Austria. A good example would be the deployment of a smart bi-directional electric vehicle charging infrastructure based on open European standards, to simultaneously advance in renewables and avoid fragmented proprietary solutions between regions or EU countries. Digitalisation of transport is another promising area for Austria to tap its strengths in key digital enablers (microelectronics, AI, 5G connectivity) for the green transformation of mobility systems. Innovation procurement is key for the digital-green economic recovery, as it determines the pace of public sector modernisation, reinforces industrial competitiveness and increases private sector investments in strategic technologies.

Graph 2.3.2. Digital Economy and Society Index (DESI) composite index summary



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

Box 2.3.2: Progress towards the Sustainable Development Goals (SDGs)

The objectives of the Sustainable Development Goals 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 box outlines Austria'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.

Figure 2.3.2: SDGs and key dimensions of the recovery and resilience plan

In this figure, the United Nations' Sustainable Development Goals are represented under a specific Commission guiding principle for competitive sustainability from the 2021 Annual Sustainable Growth Strategy, to which they are strongly associated. It should be noted that most Sustainable Development Goals contribute, to varying degrees, to several guiding principles.



1. No poverty
2. Zero hunger
3. Good health and well-being
4. Quality education
5. Gender equality
6. Clean water and sanitation
7. Affordable and clean energy
8. Decent work and economic growth
9. Industry, innovation and infrastructure
10. Reduced inequalities
11. Sustainable cities and communities
12. Responsible consumption and production
13. Climate action
14. Life below water
15. Life on land
16. Peace, justice and strong institutions
17. Partnership for the goals

Green transition

While Austria performs well on several SDG indictors related to the green transition, it still needs to catch up on others. Austria is working towards its climate targets and reducing greenhouse gas emissions in some sectors, but there are still some challenges ahead. Between 2014 and 2019, final energy consumption per capita slightly increased from 3.1 to 3.2 tonnes

of oil equivalent, which is about 50% higher the EU-27 average of 2.2t. Likewise, per capita emissions in Austria remain above the EU-27 average. Domestic Transport-related greenhouse gas emissions rose by 9.3% from 2010 to 2019 and industrial processes by 5.2%, while there were reductions in other sectors, such as in waste management (-37.4), energy supply (-27,4) and other energy use (e.g. buildings, -21.1%). Although accounting for only 3.4% of all emissions, it is noteworthy that international aviation increased by 36% over the same period. Reductions in GHG emissions linked to transport and buildings are key to Austria achieving its 2030 climate targets. On SDG 12 (responsible production and consumption), the environmental goods and services sector saw strong, above-EU average growth; however, also the generation of waste per capita increased slightly between 2014 and 2018. Austria is a frontrunner in the EU with its proportion of land used for organic farming. Compared with other EU countries, the proportion of organically farmed land in Austria (25.3%) is several times higher than the EU-28 average of 8.5%.

Fairness
Austria generally ranks high on indicators assessing the fairness of society and economy. Austria is successfully tackling poverty: the rate of people at risk of poverty and social exclusion fell from 19.2% in 2014 to 16.9% in 2019. This is significantly lower than the EU average. Austria reduced its avoidable mortality by 7% between 2012 and 2017. On 'quality in education', Austria has increased participation in early childhood education and care (for 3- to 5-year-olds), has steadily increased the tertiary education rate and lies well above the EU average in lifelong learning and the employability index. However, there is room for improvement in ensuring equal opportunities in education. Education outcomes of young from disadvantaged of migrant background remain distinctively lower and they drop out of school more often. The Austrian gender pay gap has narrowed in recent years, but women still perform significantly more unpaid work than men (SGD 5). Drops in income have had a greater effect on lower incomes than on higher ones. However, the income gap has recently narrowed again.

Digital transition and productivity
Austria performs well on 'Decent work and economic growth' (SDG 8) and 'Industry, innovation, and infrastructure' (SDG 9). With 3.19% of GDP allocated to R&D in 2019, Austria has one of the highest R&D spending in the EU, even if this is below the national target of 3.76%. The share of employees in high-tech and medium-high-tech industry rose from 2010 to 2018 from 5.3% to 5.8%. By stepping up policy efforts, Austria could make further progress on the SDGs related to the digital transition and productivity.

Macroeconomic stability
In addition to the overall good performance on SDG 8, Austria achieves high scores on indicators measuring 'Peace, justice, and strong instructions' (SDG 16), showing a stable and secure environment for pursuing economic activities.

3. OBJECTIVES, STRUCTURE AND GOVERNANCE OF THE PLAN

3.1 Overall strategy of the plan

The Austrian recovery and resilience plan is expected to address the twin transition and has a clear focus on inclusive growth. The Austrian plan helps address economic, social and ecological weaknesses and challenges, with a clear emphasis on climate protection and digitalisation. Austria invests in boosting the economy, supporting sustainability, improving

the outcomes of education and its business environment. The additional funds and new reforms will complement the already implemented economic recovery programmes and national economic stimulus packages. The Austrian recovery and resilience plan includes both new investments and prolongation of existing programmes with additional funding.

The Austrian recovery and resilience plan is organised around four components: 1 Sustainable recovery, 2 Digital recovery, 3 Knowledge-based recovery, and 4 Just recovery. Each of these components contains four subcomponents, for a total of sixteen subcomponents. The plan comprises 27 reform and 32 investment measures.

The first component, *Sustainable recovery*, comprises measures to support Austria's green transition. The component addresses structural issues related to sustainability and enables investments to facilitate reducing GHG emissions in line with the European and Austria's specific climate targets. Additionally, investments in the green transition contribute positively to the economic recovery by increasing economic growth and employment.

- Subcomponent **1.A Renovation wave** contains a reform measure 'Renewable Heat Act', and two investments, 'Promoting the exchange of oil and gas heating systems' with a focus on reducing the use of fossil resources for heating purposes and 'Combating energy poverty' seeking to minimise the social cost of green policies. They all promote the transition to more sustainable heating, while supporting low-income households in this transition in order to strengthen social cohesion.
- Subcomponent **1.B Eco-friendly mobility** contains two reforms, the 'Mobility Masterplan' and the '1, 2, 3 Ticket' with the objective to harmonise the tariff system of public transport in Austria and make it more affordable. The subcomponent also includes three investments: 'Promoting zero-emission buses, infrastructure', 'Promotion of zero-emission vehicles and infrastructure', and 'Construction of new railway lines and electrification of regional railways'.
- Subcomponent **1.C Biodiversity and circular economy** contains a reform 'Legal framework to increase collection rates for plastic beverage packaging and the supply of reusable containers in the food retail sector' and four investments in biodiversity and the circular economy: 'Biodiversity Fund', 'Investments in empty take-back systems and measures to increase re-usage rates for beverage containers', 'Installation and retrofitting of sorting facilities', and 'Support for the repair of electrical and electronic equipment'.
- Subcomponent **1.D Transformation towards climate neutrality** consists of a reform 'Renewables Expansion Law' and an investment measure 'Transforming industry into climate neutrality'.

The second component, *Digital recovery*, addresses challenges related to connectivity, with a view to strengthening competitiveness as well as social cohesion. The component seeks to speed up the deployment of broadband, addresses the needs for further digitalisation of the public administration, incentivises digital and green investments in the private sector, and addresses challenges in access to digital equipment in the education system. The component takes into account that the need to address these challenges has accelerated during the COVID-19 crisis.

- Subcomponent **2.A Broadband expansion** contains a reform measure, 'Creation of the Internet Infrastructure Austria 2030 Platform (PIA 2030)', and an investment, 'Gigabit

enabled access networks and symmetric Gigabit connectivity in areas with particular socio-economic priorities'.

- Subcomponent **2.B Digitalisation of education** consists of the reform measure 'Fair and equal access to basic digital skills for all lower secondary students' and the investment 'Provision of digital terminal equipment for students'.
- Subcomponent **2.C Digitalisation of the public administration** contains a reform, 'Provision of digital terminal equipment for students', and an investment measure, 'Digitalisation Fund Public Administration'.
- Subcomponent **2.D Digitalisation and ecological transformation of businesses** consists of three investment measures: 'Digitalisation of SMEs', 'Digital investments in enterprises' and 'Green investments in enterprises'.

The third component, *Knowledge-based recovery*, consists of several reform and investment measures related to research, innovation, technology, retraining and upskilling, as well as education. All those measures aim to prepare the economy and the people in the labour market and in the education system for the challenges of the future.

- Subcomponent **3.A Research** contains a reform measure, the 'Research, Technology and Innovation Strategy 2030', and three investment measures for the sustainable development of universities in the context of digitalisation: 'Quantum Austria — Promotion of Quantum Sciences', the 'Austrian Institute of Precision Medicine' and (digital) 'Research Infrastructures'.
- Subcomponent **3.B Re-skilling and up-skilling** consists of the reform measure 'education bonus' aiming at incentivising training for unemployed and the investment measure 'Funding for reskilling and upskilling.'
- Subcomponent **3.C Education** contains a reform measure 'Improving access to education' and two investments: 'Remedial education package' and 'Development of elementary education'.
- Subcomponent **3.D Strategic innovation** contains two planned Important Projects of Common European Interest (IPCEI), one on 'Microelectronics and connectivity' and another one on 'Hydrogen'.

The fourth component, *Just recovery*, addresses the intertwined challenges related to social cohesion and the ageing of society, supports arts and culture and improves Austria's governance and administrative procedures. The reforms and investments in this component focus on challenges related to the health and long-term care sector, as well as on municipalities. In addition, the cultural sector, particularly hard hit by the COVID-19 crisis, is supported by targeted reforms and investments. The component also contains a number of additional reform measures, which support and reinforce the overall objectives of the Austrian recovery and resilience plan.

- Subcomponent **4.A Health** contains the reform measure 'Making primary care more attractive'. The investments in this subcomponent are related to the 'Support for primary health care centre projects', 'Development of the electronic mother-child passport platform including the interfaces to the early aid networks', the 'National roll-out of "early aid" for socially disadvantaged pregnant women, their young children and families'.

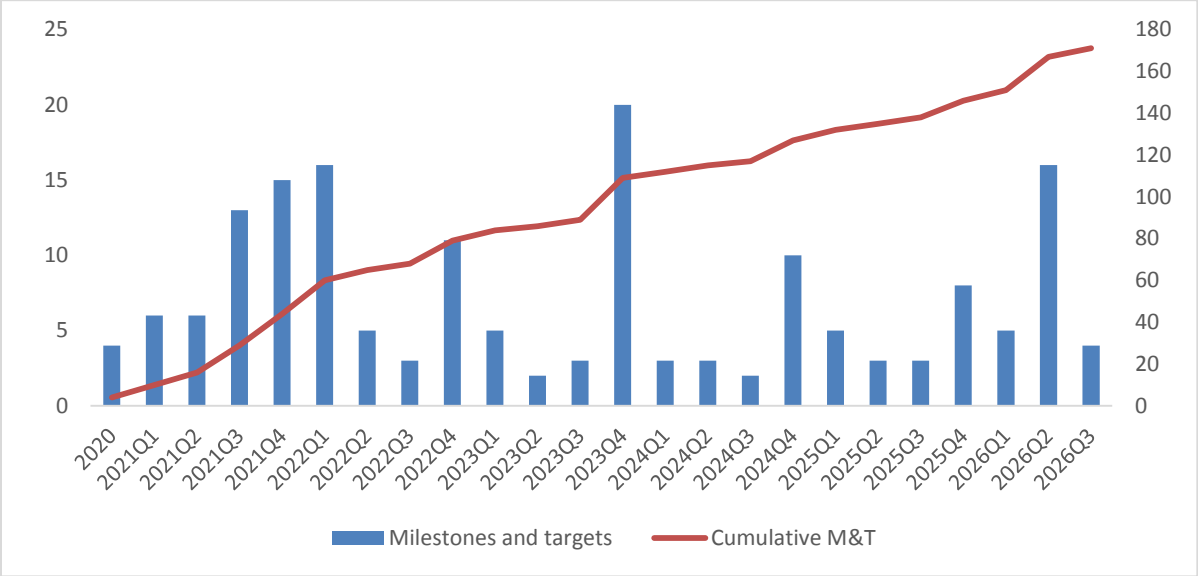
- Subcomponent **4.B Resilient municipalities** contains two reform measures: a new 'Soil Strategy' and a 'Reform to further develop care provision'. It includes investments on 'Climate-fit town centres' and 'Investment for the implementation of community nursing'.
- Subcomponent **4.C Arts and culture** contains two reform elements: 'Development of a building culture programme' and 'Development of a national strategy for digitalisation of cultural heritage'. Additionally, it includes three investments: 'Rehabilitation of the Vienna *Volkskundemuseum* and the Prater Ateliers', 'Digitalisation wave for cultural heritage' and 'Investment fund for climate-friendly cultural enterprises'.
- Subcomponent **4.D Resilience through reforms** contains several additional reform measures. They range from the development of governance in climate action to addressing the problem of a lack of multi-level governance, the implementation of CO_2 pricing in the context of the eco-social tax reform, the establishment of a new legal form ('Austrian Limited') to support growth-oriented start-ups and the facilitation of administrative procedures. The reforms will help create an appropriate framework for Austria's recovery.

Table 3.1a: Overview of the plan: components and associated cost

Component	**Costs (EUR million)**
1 Sustainable recovery	
1.A Renovation wave	209
1.B Eco-friendly mobility	849
1.C Biodiversity and circular economy	350
1.D Transformation to climate neutrality	100
2 Digital recovery	
2.A Broadband expansion	891
2.B Digitalisation of education	172
2.C Digitalisation of the public administration	160
2.D Digitalisation and ecological transformation of businesses	605
3 Knowledge-based recovery	
3.A Research	212
3.B Re-skilling and up-skilling	277
3.C Education	129
3.D Strategic innovation	250
4 Just recovery	
4.A Health	125
4.B Resilient municipalities	104
4.C Arts and culture	67
4.D Resilience through reforms	0

The milestones and targets are concentrated at the beginning, in the middle and at the end of the lifetime of the facility. Overall**,** the distribution of milestones and targets reflects the lifecycle of the investments and reforms and allows to verify that the objectives of the components are achieved. The highest number of milestones and targets are at the end of 2021/beginning of 2022, at the end of 2023 and in the second quarter of 2026. While the milestones for the reforms are concentrated in the first half of the duration of the Facility, as they have also the function for setting framework conditions, the implementation of the investments continues until the end of the duration of the Facility.

Table 3.1b: Distribution of milestones and targets per year in the recovery and resilience plan of Austria



3.2 Implementation aspects of the plan

The Austrian recovery and resilience plan makes explicit reference to the consistency with other programmes. The Austrian plan entails reform and investment measures that are proportionate to the allocation of non-repayable financial support to Austria. The plan highlights that the reform and investment measures are complementary to the further reforms and investments of the national reform programme. The relevant reform and investment measures are aligned with the National Energy and Climate Plan (NECP) and contribute to its implementation. In addition, the plan is coordinated with the negotiations of the partnership agreements and operational programmes under the Union funds for the funding period 2021-2027, to ensure complementarity and synergies. The Austrian recovery and resilience plan seem furthermore consistent with the objectives of the Youth Guarantee and the draft territorial Just Transition plans. Sectorial support to policy reforms could be provided by the Horizon Policy Support Facility that may complement the Technical Support Instrument. The concrete points of reference are included in the description of the subcomponents. Austria's

plan explicitly states that the selected reform and investment measures are consistent with the challenges and priorities identified in the most recent euro area recommendations[18].

The Ministry of Finance is responsible for the coordination of the implementation of the plan. The relevant line Ministries are responsible for the implementation of the reforms and investments falling into their areas of expertise and for compliance with the requirements of the RRF. The implementing bodies (responsible line Ministries) have drawn up individual control plans. The implementing bodies report to the Ministry of Finance the achievement of milestones and targets and flag if any delays in the achievement are expected. The Ministry of Finance reports on a semi-annual basis the achievements on milestones and targets to the Commission, in April, along with the submission of the National Reform Programme and in October, along with the submission of the Draft Budgetary Plan. The Ministry of Finance also signs the management declaration accompanying any payment request under the RRF.

The Austrian recovery and resilience plan contains a dedicated chapter on gender equality and equal opportunities for all. This chapter acknowledges that crises, such as the COVID-19 pandemic, reinforce challenges related to gender equality and equal opportunities for all and provides a short overview of how the different reform and investment measures of the plan also address challenges related to gender equality and equal opportunities. The first component, *Sustainable recovery*, includes measures to address energy poverty and to enable people with lower household income to participate in the green transition. In addition, the expansion of affordable public transport is beneficial to households with lower income and to women, who tend to use public transport to a larger extent than men. For the second component, *Digital recovery*, the expansion of broadband access aims at improving the territorial and social cohesion, while also increasing the overall competitiveness and improving the work-life balance by facilitating telework. The distribution of digital devices to all pupils in the lower secondary education helps improve equal opportunities in education. For the third component, *Knowledge-based recovery*, the included up- and reskilling measures focus on women and people from disadvantaged groups. The 'Remedial education package' supports disadvantaged pupils in catching up on the course content that they may not have been able to cover fully during the prolonged periods of distance learning. The increased support in elementary education should also be particularly beneficial for children from disadvantaged socio-economic backgrounds. The investment and reforms relating to research, technology and innovation focus on increasing the share of women working in these areas. The fourth component, *Just recovery*, includes a broad range of measures, which are particularly beneficial for women. Reforms and investments relating to health and long-term care seek to strengthen the social cohesion and contribute to improving the situation of women on the labour market. Pension splitting and measures to increase the effective retirement age should contribute to increasing the pensions of women, notably at the lower end, and therefore help reduce the gender pension gap.

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

The Austrian recovery and resilience plan reports on a comprehensive consultation process that took place ahead of the design of the plan. The consultation process included the *Länder*, cities, municipalities, social partners, NGOs, youth organisations and other relevant representatives of civil society. These were invited to submit their project proposals in advance. Overall, the Austrian government received project proposals amounting to EUR 56 billion and some of these proposals have been taken up in the plan. Some measures proposed by the *Länder* and municipalities have been included in the plan, notably investment support measures and measures in education, both contributing to social and territorial cohesion. The plan states that the measures related to the labour market incorporate inputs and suggestions from the social partners. The dedicated subchapter 4.6 'Consultations carried out' *(Erfolgte Konsultation*) suggests that a large part of the measures included in the plan is supported by one or more of the relevant actors included in the consultation process.

The plan lists two planned IPCEIs, **one in the area of microelectronic and connectivity and one on hydrogen**, as relevant multi-country projects and contains a brief description of the required coordination steps across participating Member States. Through the project on microelectronics and connectivity, areas such as low power electronics, sensors and process technologies will be strengthened. The project on building a European hydrogen ecosystem will support hydrogen production, storage and applications in particular in energy-intensive industrial and mobility sectors that are difficult to decarbonise and aims to contribute to EU's climate objectives.

The plan contains a communication strategy to emphasise the contribution of the European Union to the green and digital transformation of the Austrian society and economy. The communication strategy will highlight the contribution towards increasing the innovation potential and the education and qualification levels of all citizens, notably the younger generations. It will seek to raise the awareness of the population relating to the plan and the included measures including the financing by the European Union that should be made evident at all relevant levels. Furthermore, the communication related to the recovery and resilience plan should involve the parliament and relevant stakeholders to ensure ownership. The target groups of the communication strategy are the general public, potential beneficiaries, implementing bodies, media, as well as social partners and the parliament. The communication strategy is structured around a central website and supported by dedicated communication channels for the specific target groups. Press releases, press conferences and dedicated press meetings in close cooperation with the representation of the European Union in Austria will form the base of the communication strategy. To reach out to the general public, Austria will use existing communication projects of the European Union, as well as the dialogues in Austria through the Conference on the Future of Europe. The flagship initiatives will be promoted by dedicated communication activities. At project level, the existing standards on publicity and communication related to EU funding will be applied. The achievement of the objectives related to communication are going to be measured in number of accesses to the website and through the reception of the plan in the media.

A security self-assessment for investments in connectivity and digital capacities has not been provided as it has not been considered appropriate by Austria, in accordance with Article 18(4) point (g) of Regulation (EU) 2021/241. The relevant connectivity measures do not entail active components and the rollout of broadband does not include 5G deployment. In addition, according to information provided by Austria, the digitalisation of the public administration will be carried out in full respect of the relevant EU directive and national rules

and regulations. As such, the envisaged IT consolidation in the federal government intends to use the latest security technologies to increase the level of security.

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, the relevant measures must be notified and approved by the Commission before Member States can grant the aid, unless those measures are covered by an existing aid scheme or comply with the applicable conditions of a block exemption regulation, in particular the General Block Exemption Regulation (GBER) declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 TFEU[19]. When State aid is present and it requires notification, it is the duty of the Member State to notify State aid measures to the Commission before granting them, in compliance with Article 108(3) TFEU. In this respect, the State aid analysis carried out by Austria in the recovery and resilience plan cannot be deemed a State aid notification. In so far as Austria 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 Austria to ensure full compliance with the applicable rules. In addition to complying with 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.

4. SUMMARY OF THE ASSESSMENT OF THE PLAN

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

The recovery and resilience plan provides for a comprehensive set of measures that effectively addresses all six pillars referred to in Article 3 of the RRF Regulation, taking into account the country-specific challenges. The reforms and investments will contribute to a sustainable recovery and tackle the adverse effects and consequences of the COVID-19 crisis in Austria. While the reforms will strengthen the economic and institutional resilience, the investments are focused on forward-looking areas and will, in particular, advance the green and digital transition of both the public and private sphere. Austria submitted its National Reform Programme on 30 April 2021. The information provided in the National Reform Programme is being considered and jointly assessed in this Staff Working Document together with the recovery and resilience plan.

The measures covering the green and digital dimension account for the biggest financial allocation and go beyond the minimum targets of 37% and 20%. In particular, climate-relevant measures amount to 58.7% and digital measures to 52.8% of the total financial allocation under the RRF to Austria's plan. As such, the Austrian plan is concentrated on the first two pillars. The following table illustrates the coverage of all six pillars.

Table 4.1: Coverage of the six pillars of the Facility by the Austrian recovery and resilience plan components

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

	Green transition	Digital transition	Smart, sustainable and inclusive growth	Social and territorial cohesion	Health, and economic, social institutional resilience	Policies for the next generation
Component 1 Sustainable recovery						
1.A Renovation wave	•			•		
1.B Eco-friendly mobility	•		•			
1.C Biodiversity and circular economy	•		•			
1.D Transformation towards climate neutrality	•		•			
Component 2 Digital recovery						
2.A Broadband expansion		•				
2.B Digitalisation of schools		•				•
2.C Digitalisation of the public administration		•				
2.D Digital and ecological transformation of enterprises	•	•	•			
Component 3 Knowledge-based recovery						
3.A Research		•	•			
3.B Re-skilling and up-skilling		•	•	•		•
3.C Education				•		•
3.D Strategic innovation	•	•	•			
Component 4 Just recovery						
4.A Health care		•		•	•	•
4.B Resilient municipalities	•			•	•	
4.C Art and culture	•	•	•	•		
4.D Resilience through reforms	•	•	•	•	•	•

Green transition

Austria's recovery and resilience plan puts the main focus on measures supporting the green transition. Whilst component 1 amounting to EUR 1.5 billion is entirely dedicated to sustainability, the three remaining components of the plan also contain climate-relevant measures. Overall, the recovery and resilience plan comprises measures accounting for EUR 2 031 200 000 contributing to the green transition, representing 58.7% of Austria's total financial allocation under the RRF.

Under the first component, the recovery and resilience plan allocates EUR 209 million to thermal renovation and energy efficiency of residential buildings, addressing also energy poverty. The buildings sector (residential and commercial buildings) generated GHG emissions equivalent to 8.3 million tons of CO_2 (around 10% of the total emissions) in 2017. Even though GHG emissions from buildings have decreased over the past decades, there is still great savings potential in this sector[20].

Reducing transport-related emissions is key for Austria's shift to carbon neutrality and for meeting air quality standards. Between 1990 and 2017, greenhouse gas (GHG) emissions from transport increased by almost 80%. Investment enhancing eco-friendly mobility, including railway infrastructure, zero-emission vehicles and charging stations, represents the second-largest subcomponent of the recovery and resilience plan (EUR 849 million).

The recovery and resilience plan proposes significant investment in the protection of biodiversity and transition to a circular economy (EUR 350 million), aiming to improve, preserve and restore biodiversity, prevent waste and promote repair and recycling. These investments will help address the low plastic packaging recycling rate. They will also help protect Austria's richness in biodiversity and natural carbon sinks, contributing to the objectives of the EU's 2030 Biodiversity Strategy.

The recovery and resilience plan includes investments in decarbonisation of industry (EUR 100 million) and enhanced the support to a planned Important Project of Common European interest (IPCEI) on renewable hydrogen (EUR 125 million) under component 3. Austria has a strong industrial base, hence industry (including installations covered by the EU emissions trading system – ETS) is the largest emitting sector in Austria. These investments will accelerate emissions abatement and the uptake of advanced eco-innovation and circularity in energy-intensive sectors, while also developing the potential of hydrogen for industrial and e-mobility transformation.

The energy efficiency and climate adaptation measures under component 1 are further complemented by support for green investment by enterprises (EUR 504 million), including energy saving renovations and e-mobility, proposed under component 2. Component 4 also promotes the use of renewable energy, resource efficiency and climate adaptation by

[20] Zangheri, P., Armani, R., Kakoulaki, G., Bavetta, M., Martirano, G., Pignatelli, F. and Baranzelli, C., Building energy renovation for decarbonisation and Covid-19 recovery, EUR 30433 EN, Publications Office of the European Union, Luxembourg, 2020, ISBN 978-92-76-24766-1, doi:10.2760/08629, JRC122143.

supporting enterprises in the cultural sector (EUR 15 million), which was hard-hit by the COVID19-crisis. Similarly, it will also strengthen the resilience of municipalities through green renovations and energy efficiency of public buildings and climate adaptation measures in town centres (EUR 50 million).

All investment measures contribute effectively and in a balanced manner to Austria's green transition, **whereas the structural reforms proposed in Austria's recovery and resilience plan will amplify their lasting impact.** For instance, the investments in thermal renovations and energy transition will be reinforced by a modernisation of national support schemes for renewable energy and a new regulatory framework for renewable heating. Investment in clean mobility will be underpinned by a Mobilit**y** Masterplan 2030 and a reform incentivising the modal shift towards public transport. Investment in more effective recycling will be accompanied by an amendment of the waste management law. Protection of biodiversity will benefit from a new soil protection strategy tackling intensive land-use. Finally, all green measures are envisaged to be directly or indirectly fostered by a new climate governance framework and the planned eco-social tax reform that will be designed to reduce annual CO_2 emissions by at least 2.6 million tons by 2030.

Digital transformation

The recovery and resilience plan contributes to Austria's digital transformation. A substantial amount of investments contributes to digital objectives – EUR 1.8 billion or 52.8% of Austria's total financial allocation under the RRF. The largest share of investments towards digital transformation (for an amount of EUR 1.3 billion) are found in component 2 *Digital recovery*, although important digital-related measures are also contained in component 3 *Knowledge-based recovery* and component 4 *Just recovery*. The investments are strengthened by reforms to ensure a long-lasting impact. The envisaged reforms and investments promote digital transformation in a variety of areas, including connectivity, public administration and public services, private sector, education, research and innovation, health and culture.

The recovery and resilience will plan help enhance connectivity as the linchpin infrastructure for digital transformation. While Austria performs well in the roll-out of 5G networks, it scores below the EU average for fixed very high-speed broadband coverage and take-up. The investment in the deployment of Gigabit-capable broadband network, which accounts for the largest share of the digital-related expenditure under the recovery and resilience plan (EUR 891 million), is expected to help address this challenge. The investment is underpinned by a reform to facilitate broadband deployment, in particular by ensuring coordination between all stakeholders and reducing red tape. This reform and investment, in addition to providing the infrastructure for the digital transformation, contribute to ensuring equal opportunities between urban and rural areas. These initiatives are in line with the key action 'Accelerating investments in Europe's Gigabit connectivity' under the Commission Communication on Shaping Europe's Digital Future[21].

The recovery and resilience plan promotes digital transformation both in the public and private sectors. The envisaged measures for the digitalisation of the public administration are aimed at increasing the efficiency and effectiveness of the federal administration and result in

[21] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Shaping Europe's digital future (COM/2020/67 final).

new digital services for citizens and businesses. The financing of the projects will be complemented by a reform to implement the once-only principle when dealing with the public authorities, which is expected to reduce the administrative burden on citizens and businesses. Specific investments are also envisaged to facilitate digitalisation of companies. In particular, the recovery and resilience plan contains targeted investments to help SMEs adopt digital technologies, which has proven to be a bottleneck for productivity growth. Also, the recovery and resilience plan includes an investment premium of 14% for all companies investing in certain digital technologies, notably advanced ones, which will increase companies' competitiveness and resilience.

The recovery and resilience plan also focuses on the development of human capital as a key enabler for the digital economy. The plan includes a reform and investment to provide access to digital education and to digital equipment for students and to support the digitalisation of teaching practices of lower secondary schools. The measures will contribute to addressing the challenges Austria faces with the development of digital skills, digital inclusion, and ensuring access to quality education and equal opportunities. Moreover, for the adult population, the recovery and resilience plan contains measures to facilitate reskilling and upskilling, which include a strong focus on developing basic IT skills and IT skills in specific occupational fields.

A number of measures under component 3 are aimed at promoting digital-related research and development (R&D). In particular, the planned IPCEI on microelectronics and connectivity aims at supporting the development of future innovative network and microelectronics technologies based on smaller structures and the combination of functionalities and materials, contributing to Europe's open strategic autonomy in the global supply chains for microelectronics. In addition, a number of measures are targeted at further developing quantum research, life sciences and digital infrastructures, which is expected to boost the competitiveness, foster research and innovation, and support Europe in ensuring technology sovereignty.

The recovery and resilience plan will also contribute to the digitalisation of health services and culture in Austria. The development of the electronic mother-child passport will improve health opportunities for pregnant and breastfeeding women and their children and will promote accessibility of health services. Moreover, the plan supports the digitalisation of cultural heritage, making it available to a wider public, including for educational purposes.

Overall, the scope of Austria's recovery and resilience plan encompasses a significant number of digital-related measures targeted at various areas, with the digital contribution of the planned investments exceeding the minimum threshold set by the Regulation.

Smart, sustainable and inclusive growth

The plan extensively covers the third pillar on smart, sustainable and inclusive growth. All components contain elements aiming to strengthen the competitiveness and productivity of Austria's economy.

Component 1 will promote sustainable growth, in particular. The measures in this component aim to support the shift towards sustainable mobility and will increase the number of zero-emission vehicles in Austria. Moreover, they will support the transition from a linear

to a circular economy and aim to transform the industry towards climate neutrality. These measures will have a long-lasting impact, ensuring the competitiveness of the economy and creating jobs.

Component 2 includes a set of measures targeted at SMEs. They will enhance the digitalisation of SMEs and will promote investments on greening of businesses. This will prepare the ground for structural changes towards a sustainable economy and strengthen future-oriented areas.

Component 3 covers measures to strengthen research and innovation. This will enhance the growth potential and entrepreneurship. At the same time, the investments will promote cross-border cooperation in important strategic areas and bring added value on the European level, in line with the Commission's New Industrial Strategy.

Component 4 helps address the needs of businesses in the area of art and culture. The measures in this component aim to strengthen the resilience of the cultural sector by supporting innovation and transformation towards sustainability. In particular, they aim to promote environmental and digital investments in future-oriented areas, such as circular economy.

The Austrian plan covers a coherent set of reforms and investments to promote smart, sustainable and inclusive growth. While focusing on strategically important areas, such as research and innovation, the measures will ensure that also SMEs and the cultural sector will not be left behind.

Social and territorial cohesion

The Austrian recovery and resilience plan covers sufficiently the fourth pillar, as it has both a strong social dimension and a focus on Austria's regions. Social cohesion is expected to be tackled by education measures targeting either disadvantaged groups or catching up generally with educational deficits caused by the COVID-19 crisis. As female labour market potential remains underutilised, the envisaged quantitative and qualitative improvement of early childhood education and care facilities addressed within the recovery and resilience plan could help increase full-time employment of women with caring responsibilities. The roll-out of 'early aid' will further support disadvantaged women, children and families. Territorial cohesion will likely be fostered by measures linked to renovation of buildings, broadband and sustainable mobility. More and better primary health care centres will also be of benefit for the remote regions, as access to quality health care will be improved all over the country. The envisaged reforms (pension splitting, early starter bonus and the eco-social tax reform) also go in the right direction. As women still tend to take care of raising children more than men, they are likely to have interrupted careers followed by lower pensions. The pension splitting will therefore contribute to narrowing the pension gap between men and women by sharing acquired pension rights for times of childcare responsibilities. The introduction of the early starter bonus (instead of the *Hacklerregelung* – early pension for specific professions, mainly occupied by men) will also contribute to reducing the gender pension gap.

Health and economic, social and institutional resilience

The Austrian recovery and resilience plan covers sufficiently the fifth pillar related to resilience. The crisis from the COVID-19 pandemic put at the forefront the link between health systems and the economy. Strengthening Austria's health system and increasing the focus on primary health care (subcomponent 4.A) is expected to make a strong contribution to economic growth and related job creation. A stronger and more resilient health system will equally be better placed to absorb surges in healthcare demand. In addition, the general improvement of the population's health will translate into a more productive labour force, reduced losses due to absenteeism and reduced constraints to socio-economic activities. Social and institutional resilience will be improved by the envisaged pension reforms, which will contribute, at least to a certain extent, to dampening the increase of expenditures within the pension system and will further contribute to narrowing the gender pension gap. Overall, both pension reforms (4.D.2 and 4.D.3) will make the system somewhat more sustainable in the medium run.

Policies for the next generation, children and the youth

The sixth pillar is duly addressed in the Austrian plan, covering three components with a balanced mix of reforms and investments. The envisaged investments will allocate resources to the education system and will be flanked by reforms to improve access to education. A number of measures under component 3 aim to increase the capacities for elementary education and to bring some progress in reducing inequalities in educational attainment, which is heavily influenced by socio-economic or migrant background.

Bridging the learning gaps, which have increased during the COVID-19 crisis due to distance learning, will be key to ensure that no one is left behind. This is reflected in the measures Austria has put forward to support pupils with additional hours, to complete their degrees and final examinations. In addition, pupils will receive IT equipment in order to ensure that a lack of financial means will not lead to disadvantages in digital competences. During the COVID-19 pandemic, the importance of digitally well-equipped schools and pupils became apparent and underlined the need for IT infrastructure. The measures under component 2 will ensure the access to basic digital education at lower secondary level and aim to create a level playing field for pupils.

Training the next generation towards future-oriented sectors will be promoted by measures under component 3. The upskilling and reskilling measures in this component aim to strengthen the competences of the unemployed and low-skilled, with a particular focus on digital skills. This will enhance opportunities for disadvantaged groups and improve their overall job prospects. By seeking to increase the labour market outcomes for the low-skilled, the plan effectively addresses the European Pillar of Social Rights.

The plan will also contribute to the well-being of pregnant women with measures under component 4. The introduction of the electronic mother-child passport will promote screening programmes and will provide for an effective electronic platform to improve early detection of risk factors and diseases during pregnancy. In addition, a comprehensive package on early aid will support disadvantaged pregnant women. These measures will also improve the prospects of children.

Overall, the plan covers all six pillars, prioritising the green and digital dimensions. The strong focus on the green pillar is driven by the aim to reach climate neutrality by 2040, without falling behind on competitiveness or economic growth. The measures falling under this pillar will support the green transition of the Austrian economy and will have a long-lasting impact, aiming to significantly reduce CO_2 emissions. The focus on the digital pillar recognises the importance of digital competences and digitalisation across all areas of the economy. The measures will provide for the digital transformation of the public administration and ensure the competitiveness of businesses by making them fit for the digital age and enhancing cross-border cooperation in strategically important areas. Considering Austria's economic and social situation, focusing on the first two pillars shows the forward-looking approach of the plan and represents a tailor-made response to country-specific challenges. It is also in line with the priorities of the Facility. The plan covers the third pillar to a great extent and the measures will promote smart, sustainable and inclusive growth and strengthen Austria's competitiveness and productivity. As regards the fourth pillar, the measures will enhance the social and territorial cohesion as the plan entails a strong social dimension and focusses on Austria's regions, while aspects linked to rural areas are to some extent directly referred to or considered in a rather implicit way. The fifth pillar is addressed with a coherent set of measures that will enhance the resilience of the health care system and promote the well-being of citizens. The plan duly covers the sixth pillar with a subset of measures to improve the education system.

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

4.2 Link with country-specific recommendations and the European Semester

The Austrian recovery and resilience plan is expected to address a significant subset of the challenges identified in the relevant country-specific recommendations. The proposed reforms and investments are an ambitious response to a large set of challenges faced by the Austrian economy. The plan includes important steps for an eco-social tax reform, including a target for reduction of CO_2 emissions, and reforms to address challenges in the pension system and in the labour market, particularly for long-term unemployed. The plan includes several reform and investment measures that enable the green and digital transition, and just improve research and innovation, health, long-term care, childcare facilities, and education. In addition, the plan also includes important reforms to improve access to finance and the business environment.

Table 4.2: Mapping of country challenges identified in 2019-20 country-specific recommendations and Austria's RRP components

Country challenges	Sub-Component *CSRs 2019-2020*	1 A	1 B	1 C	1 D	2 A	2 B	2 C	2 D	3 A	3 B	3 C	3 D	4 A	4 B	4 C	4 D
Comprehensive tax reforms	*2019. 2 (1)* *2020. 4*																●
Unemployment and female labour market participation	*2019. 2 (2, 3)*										●	○					●
R&D investments for innovation	*2019. 3 (1)* *2020. 3 (5)*									●			●				
Reduce administrative and regulatory burden on firms	*2019. 3 (5)* *2020. 3 (2)*							●									○
Resilience of the health care system	*2020. 1 (2)*													●			
Fiscal sustainability risks (health, pensions, long-term care)	*2019. 1 (1, 2, 3)*													○	○		○
Digital transition	*2019. 3 (2)* *2020. 3 (5)* *2020. 2 (2)*					●	●	●	●				●				
Greenhouse gas emission and climate neutrality	*2019. 3 (3)* *2020. 3 (6, 7)*	●	●	●	●								●		●		●
Educational system	*2019. 2 (3)* *2020. 2 (1, 2)*						●					○					
Fiscal federalism	*2019. 1 (4)*																○

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

The plan contains important steps to addresses challenges related to fiscal governance and the fiscal framework (CSR 1 in 2019). Austria has been recommended for several years to simplify and rationalise fiscal relations across layers of government and to align financing and spending responsibilities. The plan includes a proposal for spending reviews related to green and digital transition (4.D.1) as well as a proposal for green budgeting related to the reform of climate governance (4.D.4). All these are important elements to address the CSR, but do not yet constitute a comprehensive reform. This is acknowledged by the plan, which explicitly states that a more general reform of the fiscal framework is postponed due to challenges related to the pandemic.

The plan is expected to address some of the challenges in the pension system (CSR 1 in 2019). The projected rise in age-related government expenditure poses a risk to Austria's fiscal sustainability in the long term, which is confirmed by the updated projections of the forthcoming 2021 Ageing Report. The plan includes four measures related to pensions: (i) Introduction of the early starter bonus (*Frühstarterbonus*, 4.D.2); (ii) Abolishment of the deduction-free early retirement after 45 contribution years (*Hacklerregelun*g, 4.D.2); (iii) Postponement of first pension increase (*Aliquotierung*, 4.D.2); and (iv) Pension splitting (4.D.3). While the pension splitting is expected to be largely budget neutral, the other three measures will result in annual expenditure savings. As such, they contribute to the fiscal sustainability of the pension system, while not entirely solving the problem. The pension splitting contributes to narrowing the gender pension gap, a long-recognised challenge in Austria.

The plan helps with addressing some of the challenges identified in the health and long-term care system (CSR 1 in 2019 and 2020). Projections of the Austrian public health care spending point to a fiscal sustainability risk in the long run. Public expenditure for long-term care as a percentage of GDP is projected to increase steadily due to increasing ageing of the population. In addition, the long-term care system faces staffing challenges, which became even more perceptible and evident during the COVID-19 pandemic. The Austrian health system could be made more efficient by shifting responsibilities to primary care centres for conditions which do not necessarily need to be treated in hospitals. The need for a more comprehensive use of these centres was also underlined by the current crisis, with an additional increase in the demand to provide easily accessible primary care. To address these concerns, the Austrian recovery and resilience plan includes a reform to promote primary health care projects (4.A.1) and to expand the provision of primary health care centres (4.A.2). To complement these efforts, two further measures focus on the prevention of potential health care issues already at an early stage in life ('Development of the electronic mother-child pass platform including the interfaces to the early aid networks', 4.A.3; 'National roll-out of "early aid" for disadvantaged pregnant women, their young children and families', 4.A.4). The proposed reform of long-term care provision and the investment in a pilot project for community nursing address structural challenges of the Austrian long-term care system.

The plan is expected to address some of the challenges related to making the tax mix more efficient and more supportive to inclusive and sustainable growth (CSR 4 in 2020 and CSR 2 in 2019). Austria has considerable scope for a comprehensive tax reform to foster fairness, inclusive growth and environmental sustainability. The proposal for an eco-social tax reform (4.D.5) included in the Austrian recovery and resilience plan has the potential to

become a key enabling reform for the green transition and a sustainable economic recovery. Additionally, it constitutes an important instrument to achieve EU and national climate targets, with a specific target for reduction of CO_2 emissions. The eco-social tax reform will complement the already implemented retroactive reduction of personal income taxation and will be accompanied by adequate compensatory measures for private households and businesses. Additionally, also the green finance agenda (4.D.7) and the Renewable Expansion Law (1.D.1) address challenges raised in the context of these CSRs.

A bundle of targeted measures in the plan aims at enhancing skills of vulnerable groups and improving labour market attainments of low-skilled and long-term unemployed (CSR 2 in 2019). For the past several years, Austria has been called upon to step up skills-enhancing policies for vulnerable groups, including low-skilled and people with a migrant background. Due to the pandemic, unemployment in Austria has increased significantly and the unemployment rate increased by 0.9pp to 5.4% in 2020. Low-skilled workers have generally a lower labour market attainment due to insufficient skills, but also exhibit a low willingness to take part in retraining measures. The planned reform (Education bonus, 3.B.1) and the up- and reskilling measures (3.B.2) address the challenges described in the country-specific recommendations. The planned one-stop-shop for long-term unemployed facing multiple barriers to placement and inclusion in the labour market (4.D.10) is of particular relevance for the low-skilled and cushions the adverse effects of the crisis on the labour market.

The plan includes several measures to improve the business environment and address regulatory barriers (CSR 3 in 2019 and 2020). The analysis in the framework of the European Semester showed that the high administrative burden in Austria discourages investment, in particular among SMEs and in the services sector. Regulatory restrictiveness is high for certain professional services, such as accounting, architecture, engineering, real estate agents and in retail. It represents an effective entry barrier**.** Moreover, the small and volatile market for equity capital (notably risk capital) is a bottleneck to the scaling-up of innovative, growth-oriented firms. The implementation of the once-only reform (2.C.1) is expected to reduce bureaucracy for businesses and compliance costs caused by incompatible IT systems. The plan includes new equity funding options and a reform proposal for strengthening equity (4.D.9). Furthermore, the plan includes a reform introducing a new company form ('Austrian Limited', 4.D.8). This new legal form shall be tailored to the needs of start-ups and innovative SMEs and the area of social entrepreneurship. Additionally, the plan includes three reform proposals aiming at the liberalisation of business regulations (4.D.11).

A substantial number of the proposed reforms and investments are targeted towards the green transition and the reduction of Greenhouse gas emissions (CSR 3 in 2019 and 2020). A combination of reform and investment measures included in the plan aims at addressing the challenges related to energy efficiency, renewable energy and the reduction of GHG emissions. The proposed measures are aligned with the objectives of the National Energy and Climate Plan (NECP) and support the green transition. In line with the relevant CSRs and the Sustainable and Smart Mobility Strategy, the focus of the transport component of the Austrian recovery and resilience plan is on zero-emission road transport (1.B.3, 1.B.4), TEN-T rail network (1.B.5) and multimodal passenger transport (1.B.1, 1.B.2). In addition, the plan includes further measures to strengthen biodiversity (1.C.2), accelerate the transition to a circular economy (1.C) and repair activities (1.C.5), as well as the prevention, collection

and sorting of waste (1.C.1, 1.C.3, 1.C.4). Furthermore, the plan includes a reform to extend Austria's renewables production capacity (1.D.1) as well as an investment to increase support for efficient energy use and generation in industry (1.D.2).

The Austrian recovery and resilience plan addresses challenges related to the digital transition in an ambitious manner (CSR 3 in 2019 and 2020). Austria has a low coverage with very high-capacity networks, particularly in rural areas and performs below the EU average for the integration of digital technology in businesses. Enhancing digitalisation can create jobs in the short run and, together with digitalisation of businesses, increase productivity and competitiveness. The plan includes investment measures to enhance broadband coverage and the expansion of the Gigabit network (2.A), particularly also to close the rural divide and to ensure competitiveness across Austria. In addition, the plan includes investments in the digitalisation of companies (in particular SMEs) (2.D.1, 2.D.2), digitalisation of cultural heritage (4.C.2, 4.C.4), and the provision of digital equipment for pupils (2.B.2), accompanied by several reforms, including the once-only principle (2.C.1) and the development of the platform *Internetinfrastruktur Austria* (2.A.1).

The plan includes important reform and investment measures, related to improving education outcomes and enhancing early childcare education (CSR 2 in 2019 and 2020). The poor education outcomes of children with disadvantaged socio-economic or migrant background has been raised as a challenge in the framework of the European Semester for several years. The risk of falling behind in the education system has potentially been aggravated by the prolonged periods of distance learning during the COVID-19 crisis. Improving access to, and quality of, early childhood education and care is seen as an important building block to improve educational attainment of children with disadvantaged socio-economic background. The measures included in the Austrian plan seek to improve equal access to education by strengthening early childhood education, especially for children under three-year old (3.C.3). Extra support for pupils should compensate for learning losses during the pandemic (3.C.2). The two investments are linked to a reform that broadens access to education (3.C.1). All these measures aim at improving access to education and the attainment of disadvantaged groups, identified as challenges in 2019 and 2020. The COVID-19 crisis has reconfirmed the need to equip teachers with digital skills and to develop blended learning at system, school and class level, and digitalisation plans at school level. The plan includes an investment programme for digital end devices for pupils (2.B.2) and a reform to ensure fair and equal access for pupils to basic digital competences, among others via the introduction of two platforms to facilitate administration, communication, and learning (2.B.1). These measures address the challenges raised in the CSR, support the Austrian priorities regarding digital education and competences, and can help equalise access to digital education.

The plan includes ambitious efforts to enhance research and innovation to strengthen Austria's competitiveness (CSR 3 in 2019 and 2020). Austria's R&D intensity has been one of the highest in the EU, but the country has lagged behind innovation leaders in terms of innovation outcomes, i.e. translating Austria's R&D efforts into cutting-edge innovation. The plan includes a research, technology and innovation strategy that addresses the key points from the European Semester 2020 analysis. In line with this strategy, major research investments are related to quantum science (3.A.2), high-tech medicine (3.A.3), and digital research infrastructure (3.A.4). Furthermore, the plan includes two planned IPCEIs

(microelectronics, 3.D.1; hydrogen, 3.D.2). The proposed measures address the weakness of the Austrian R&D system and help translate its R&D efforts into innovation outcomes, e.g. by promoting competitive basic research through an Excellence Initiative.

The Austrian plan is ambitious in contributing to address a significant subset of the challenges identified in the European Semester. The reforms and investments included in the Austrian plan are in line with the challenges identified for Austria in the context of the European Semester over the last years. The Austrian plan addresses all challenges set out in the country specific recommendations issued to Austria in the years 2019 and 2020, but not all challenges are addressed to the same extent. Additional reforms may be needed in the coming years to eliminate the longstanding issue related to the fiscal sustainability of the health, long-term care and pension systems that were not addressed. A reform of the fiscal framework has also been postponed. Further measures to support and improve the learning outcomes of students from disadvantaged backgrounds as well as additional labour market measures to ensure their participation may be needed in the medium term when the consequences of the crisis become clear. Additional reductions of the administrative and regulatory burden on businesses and measures expanding the business opportunities would be necessary, in particular of the retail sector and on the restriction on exercising certain professional services, allowing them to contribute with their full potential to the growth of the Austrian economy. In line with the overall prioritises of the RRF, the plan focuses on reforms and investments related to the green and digital transition, where Austria also faces particular challenges, notably to reach the climate targets and to improve the competitiveness of the economy through digitalisation. Furthermore, the reforms and investments included in the recovery and resilience plan complement government priorities included in the National Reform Programme in a meaningful way.

Overall, the components of the plan are a comprehensive attempt to address Austria's economic and social challenges. The measures included in the plan contribute to the up- and reskilling of the labour force, and to strengthening competitiveness and productivity. The reform and investment measures are likely to facilitate long-term structural changes in certain areas and prepare the economy for future challenges. The strong focus on the green transition, including measures such as increasing the energy efficiency in buildings and enhancing the use of renewable energies, and the boost to sustainable mobility and circular economy can help make growth more sustainable in the long run and reach the climate target, while maintaining competitiveness. The strong focus on digitalisation and on innovation and research is likely to increase Austria's competitiveness. The comprehensive proposal for an eco-social tax reform is a significant contribution to make the tax mix more supportive for inclusive and sustainable growth. Enhancing the skills, particular of the low-skilled and focusing on the labour market integration of the long-term unemployed, helps address social challenges. The measures in the education sectors will support better education outcomes of the pupils with disadvantaged socio-economic background. The measures in the pension system are a first step to address structural challenges. The measures in the health and long-term care sector address particularly challenges related to the organisation and provision of services in this sector. The spending reviews and the green budgeting address some of the challenges related to the fiscal governance, while the overall reform of the fiscal framework is postponed due to the COVID-19 crisis.

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

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 reform and investment measures included in the Austrian recovery and resilience plan help enhance economic growth, contribute to job growth, and mitigate effects of the COVID-19 crisis. The reform and investment measures included in the plan foster economic growth and economic cohesion in an inclusive manner, especially since the plan addresses previously identified challenges and impediments to Austria's growth potential (c.f. section 4.2). Notably, the plan includes a comprehensive reform and investment package for the green and digital transition and sizable measures to improve Austria's performance in innovation, research, and technology. With this clear focus on Austria's twin transition and productivity, the plan will contribute positively to the future growth potential and job growth. The plan focuses also on enhancing human capital with targeted active labour market and education measures, which is particularly relevant to mitigate the effects of the COVID- 19 crisis. Further measures included in the plan address weaknesses of the Austrian business environment and improve the framework conditions for start-ups.

Reform and investment measures related to the green and digital transition and to research and innovation will contribute to Austria's growth potential. Measures related to the green transition, such as supporting the use of renewable energies (1.A, 4.B.3) and boosting the circular economy (2.C) and the sizable investment in green mobility (1.B) are expected to positively contribute to sustainable and inclusive growth. Additionally, they help reach the climate targets in 2030 and achieve carbon neutrality in the European Union by 2050. This will also help reduce the economic costs of climate change and particularly the green investments will contribute positively to the growth perspective of the Austrian economy and secure jobs. Investments and reforms targeted to enhancing the digitalisation of the Austrian economy represent a sizable share of the Austrian plan. The COVID-19 crisis and the ensuing containment measures underlined the need for enhanced digitalisation to keep close relationships with customers and to stay in the market. Thus, particularly the investments in broadband expansion (2.A) and the targeted support for the digitalisation of SMEs (2.D.1, 2.D.3) will positively contribute to the growth potential and enhance the competitiveness of the Austrian economy. The plan stimulates private investments through the measures related to the green and digital transition and through the investment bonus (2.D.2, 2.D.3), which is intended to support private investments in periods of uncertainty. Thus, the plan will likely have a persistent effect on potential output and labour productivity through an increase and modernisation of the capital stock. The plan also includes targeted measures to better translate investments in research into innovative outcomes (3.A), which

has been identified as one of the challenges for the Austrian economy. In addition, investment in the digitalisation of schools (2.B) and of the public administration (2.C) are also expected to positively contribute to Austria's growth potential.

A substantial share of the measures in the plan seek to enhance the skills of the labour force, improve education outcomes and mitigate adverse effects of the crisis. The comprehensive package of up- and reskilling measures targets low-skilled persons and those distant from the labour market. This crucial element of active labour market policy helps increase the probability of re-employment and the future wage income of participants. The planned establishment of a one-stop shop service for long-term unemployed (4.D.10), facing multiple barriers to placement and inclusion in the labour market, will support reintegration of those people in the labour market, by effectively tackling their specific needs. The education package, notably the remedial education (3.C.2), helps close learning gaps accumulated during the prolonged periods of distance learning during the pandemic and supports in particular pupils with disadvantaged socio-economic background. In addition, the enhanced investment in elementary education (3.C.3) seeks to mitigate potential inequalities in the education system early on. Overall, these measures aim to increase the human capital and to provide the right skills for the labour market, improving the growth potential and contributing to job growth. Furthermore, these measures mitigate potential adverse effects of the crisis.

Improving the business environment and the condition for start-ups contributes to better framework conditions for potential growth. The Austrian plan includes several reform proposals, which address weaknesses of the business environment (4.D.11) and in the framework conditions for start-ups (4.D.8). The legal proposal for the 'Once-only principle' (2.C.1) seeks to reduce the administrative burden and decrease the compliance costs, caused by incompatible IT systems, and to encourage investment, particularly among SMEs, notably also in the services sectors. The start-up package (4.D.8) will further encourage and facilitate setting up companies in Austria. The liberalisation of the commercial framework law will eliminate some aspects, which hamper the smooth functioning of certain businesses.

The overall impact on economic growth is expected to be positive, and public investment will exceed the levels reached before the COVID-19 pandemic. The economic impact assessment of the recovery and resilience plan assumes that investments financed by the recovery and resilience plan amount to EUR 4.5 billion between 2020-2026, which translates to 0.17% of GDP per year (based on the 2020 GDP levels). The Austrian authorities estimate that GDP will be boosted by 0.91% in 2025, when compared to a policy neutral baseline. Labour market conditions are also set to benefit, and the budget balance is set to improve by 0.34 percentage points by 2025 as opposed to the policy neutral baseline. Overall, economic growth will be greener, more digital, and more resilient. The estimated economic impact seems to be plausible given the size of the recovery and resilience plan support. The information provided in the plan show that only part of the investment included in the recovery and resilience plan is gross fixed capital formation, while the rest is composed of capital transfers (investment support), public consumption, and subsidies. According to the data presented in the plan (Table 9) gross fixed capital formation in the period of 2020-2026 is expected to exceed the average level in the three-year period before the pandemic (2017-2019), even when not taking into account the part that is not financed by the RRF. Considering also spill-over effects from other countries, the Commission's QUEST model

finds that Austria's GDP can increase by between 0.4% and 0.7% by 2026, and effects could be stronger considering the impact of structural reforms (see Box 4.3a).

Box 4.3a: Stylised NGEU impact simulations with QUEST – Austria

Model simulations conducted by the Commission using the QUEST model show that the economic impact of the NGEU in Austria could lead to an increase of GDP of between 0.4% and 0.7% by 2026[22]. After 20 years, GDP could be 0.2% higher. Spillovers account for a large part of such impact.

According to these simulations, this would translate into up to 14,000 additional jobs. Cross border (GDP) spillovers account for 0.5 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)[23].

Table 4.3: QUEST simulation results (%-deviation of real GDP level from non-NGEU case, linear disbursement assumption over 6 years)

Scenario	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2040
Baseline	0.5	0.6	0.7	0.7	0.7	0.7	0.6	0.5	0.4	0.4	0.2
of which spillover	*0.4*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.4*	*0.3*	*0.3*	*0.2*	*0.1*
Low productivity	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.2	0.2	0.2	0.1

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 Austrian GDP by 12% in 20 years, in line with findings for the EU average[24].

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

Strengthening social cohesion

Several measures in the plan aim at strengthening social cohesion, even though Austria has overall a particularly good performance regarding the principles of the European Pillar of Social Rights and the indicators included in the Social Scoreboard. Nevertheless, there are certain areas, where social cohesion could still be strengthened, notably persistent structural challenges that have aggravated during the COVID-19 crisis. To this end, the Austrian plan includes targeted policies for children and the youth and certain measures focus

[22] RRF amounts to roughly 90% of NGEU, which also includes ReactEU, Horizon, InvestEU, JTF, Rural Development and RescEU.
[23] Technically, the low productivity scenario considers a significantly reduced output elasticity of public capital.
[24] Varga, J, in 't Veld J. (2014), "The potential growth impact of structural reforms in the EU: a benchmarking exercise ", European Economy Economic Papers no. 541.
http://ec.europa.eu/economy_finance/publications/economic_paper/2014/pdf/ecp541_en.pdf.

on reducing social vulnerabilities. Measures included in the education system (elementary education package, 3.C.3; remedial education package, 3.C.2; provision of digital end-user devices to pupils, 2.B.2) aim at reducing social vulnerabilities, particularly for children and the youth with a disadvantaged socio-economic background. The education bonus (3.B.1), the up- and reskilling measures (3.B.2), and the one stop shop service for long-term unemployed (4.D.10) foster the inclusion of the low-skilled and long-term unemployed. In addition, the measure on fighting energy poverty (1.A.3) helps reduce social vulnerabilities related to the sometimes-costly investment in the transition to renewable energies and make the green transition more inclusive. The reform of the primary health care provision (4.A.2), the long-term care reform (4.B.2), and the provision of community nurses (4.B.4) have positive effects on strengthening social cohesion, as their services seek to reach individuals who had until now limited access to these services. The measure, 'early aid' (4.A.4) for disadvantaged pregnant women, their young children and families aims to offer a range of targeted services, with the aim to reduce the social vulnerabilities for pregnant women and their children. Likewise, the electronic mother-child pass (4.A.3) targets those women and children, who do not necessarily take up these services. The reforms in the pension system will make the entire system fairer (4.D.2, 4.D.3) and some of them are expected to reduce the gender pension gap (4.D.3). All these elements help reduce social vulnerabilities, contribute to the implementation of the European Pillar of Social Rights and improve the indicators of the Social Scoreboard.

Reducing vulnerability and increasing resilience

Green reforms and investments will strengthen economic and environmental resilience. Investments related to the green transition support the economic transformation and climate adaption through decarbonisation of the industry, stronger reliance on renewable energy, and enhancing energy efficiency, and promote the circular economy (1.A, 1.B. 1.C, 1.D, 2.D.3, 3.D.1). The plan supports the shift to domestic, zero-emission energy resources, which is likely to increase Austria's resilience towards price fluctuations on the world energy market, together with the beneficial environmental and climate effects. Overall, this enhanced green transition is also likely to strengthen the resilience of the economy, in light of accelerating climate and environmental challenges and the needed economic recovery.

Reforms and investments related to the digitalisation and an enhanced focus on innovation and research will support the change towards a more digital and resilient economy. The measures in the plan foster the expansion of Gigabit-enabled access networks (broadband networks with very high capacity, 2.A) and support the digitalisation of the public administration (3.C.2) and SMEs (3.D.1, 3.D.2). This will facilitate business activities, support competitiveness and strengthen the resilience towards future crisis. Measures, like the planned IPCEI on microelectronics (3.D.1) are expected to contribute to strengthening the digital autonomy and securing future-oriented jobs in Austria. The measures in research, innovation, and technology, notably the investments in quantum science (3.A.2), the centre for biomedicine (3.A.3), and in digital research infrastructure (3.A.4) are expected to reinforce Austria's position as a key player for research, innovation, and technological development.

The Austrian recovery and resilience plan includes targeted measures in the labour market, education, health, and pension system to enhance social resilience. The education

bonus, the package of retraining and upskilling measures and the one-stop shop services for long-term unemployed are supporting the low skilled, long-term unemployed and all people distant from the labour market. The measures include the appropriate services and a targeted institutional set-up to enable their permanent labour market integration. The education measures aim at reducing the risk of low education outcomes and the related long-term negative effects for social integration, notably by providing support to catching up with the education content lost during the prolonged period of distance learning during the COVID-19 pandemic. Additionally, they aim to tackle potential difficulties early on, with the appropriate provision of high-quality early childhood and care services. The measures in the health care sector, aim at changing the system of provision of primary care towards a system that is easily accessible for all. Overall, these targeted measures are expected to enhance social resilience.

Cohesion and convergence

Overall, Austria has a favourable development of territorial cohesion and regional disparities are low. The cohesion between the Austrian regions is visible in a low difference in GDP per capita between the regions, and an even lower difference of income per capita between the regions, due to a sizable share of commuters. This favourable situation is supported by the Intergovernmental Fiscal Relations Act, which explicitly supports financially weak communities and a regional policy that focuses on equal chances in life. However, there is a significant urban-rural gap in the provision of certain services.

Several measures included in Austrian plan aim at closing the urban-rural gap in the provision of certain services. The recovery and resilience plan provides for the expansion of Gigabit-enabled access networks (broadband networks with very high capacity) and the establishment of new symmetrical Gigabit connections in areas with specific socio-economic priorities (2.A.2). Thereby, the measure seeks to provide equal opportunities for people living in urban regions and rural areas, to enhance future territorial development and to strengthen Austria as a business location. Strengthening the cohesion through improving the connectivity will also positively contribute to the green transition as it will promote online services and teleworking and reduce the need to commute. The expansion of early childhood and care facilities targets weak regions, which so far provide only limited services. The pilot project community nurses is aiming at providing appropriate long-time care offers in regions, which have difficulties in accessibility to such services. Also, the 'early aid' for disadvantaged pregnant women, their young children and families (4.A.4), aims to be rolled out in all Austrian regions. In addition, the expansion of the availability of primary health care centres (4.A.2) intends to make primary care services easily accessible. The measures in the education system, notably the provision of digital end-user devices to pupils (2.B.2) and the offer of a remedial education package (3.C.2) are also intended to improve availability of targeted offers throughout the regions. The measures included in the component 'environmental mobility,' notably the 1-2-3 ticket (1.B.2) and the expansion of regional railways (1.B.5) focus on enhancing accessibility of public transport for people living in less well-connected areas. Measures targeted at supporting the exchange of oil and gas heating systems with renewable technology such as biomass, heat pumps and efficient district heating are especially relevant to poorer regions, due to the prevalence of oil heating in those areas (1.A, 4.B.3).

Box 4.3b: Employment and social challenges in light of the Social Scoreboard accompanying the European Pillar of Social Rights

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

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

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

Austria performs relatively well on the Social Scoreboard supporting the European Pillar of Social Rights, but some employment and social challenges remain. Austria's economy has been strongly affected by the COVID-19 pandemic and related containment measures with a 4.3% decline in GDP in the fourth quarter of 2020. The unemployment rate increased by 0.9% to 5.4% in 2020. Short-time work schemes helped mitigate the effects of the crisis on the labour market, despite the strong drop in hours worked. Overall, unemployment increased from 4.5% in 2019 to 5.4% in 2020 and is projected to fall just below 5% in 2022. The net earnings of a single worker earning the average wage remain among the highest in the EU. Net earnings also grew faster than in comparable countries with high productivity levels. The share of people at risk of poverty or social exclusion fell to 16.9% in 2019.

The female labour market potential remains underutilised, mainly due to insufficient provision of quality childcare. In 2020 Austria had one of the highest rates of employed women working part-time in the EU, at 47.5% (EU average 27.6%). The gender pay gap remained above the average in 2019 (19.9% vs 14.1% in the EU). The insufficient provision of quality childcare and all day schools is one of the underlying factors, with 22.7% of children below the age of 3 participating in formal childcare in 2019, below the EU average of 35.3% and the Barcelona target of 33%. Considerable regional differences are also observed.

The recovery and resilience plan submitted by Austria addresses a number of employment and social challenges relevant for the implementation of the Pillar. To improve labour market dynamics and working conditions, the plan provides a strong investment in reskilling and upskilling, accompanied by a reform called Education bonus. To foster equal opportunities and access to the labour market, Austria focusses on the improvement of skills and competences and on increasing labour market opportunities for the unemployed. The envisaged investment and reform measures focusing on upskilling and reskilling are expected to have a positive impact on employment and wages, notably of the low-skilled. The planned investment also addresses indirectly the digital transformation and provides a response to demographic change requiring the development of new skills. Reforms and tailored measures increasing skills and qualifications are important in order to provide much needed support, in synergy with ESF funding.

As more people likely to fall back on the basic safety nets due to the COVID-19 crisis, also reforms on social protection and inclusion gain in importance, in synergy with ESF funding. A preventive approach to long-term care is envisaged by a measure establishing community nurses. Advice and support by the latter would enable older people and persons with disabilities to have access to care, while enabling them to live in their home environment. The measure aims to ensure the sustainability of the health and long-term care systems.

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

4.4 The principle of 'do no significant harm'

Austria's recovery and resilience plan assesses compliance with the 'do no significant harm' (DNSH) principle. The assessment follows the methodology set out in the Commission's Technical guidance on the application of 'do no significant harm' under the Recovery and Resilience Facility Regulation (2021/C 58/01). It covers the six environmental objectives within the meaning of Article 17 of Regulation (EU) No 2020/852, namely climate change mitigation, climate change adaptation, sustainable use and protection of water and marine resources, circular economy, pollution prevention and control, and protection and restoration of biodiversity and ecosystems. The assessment of environmental impact has been carried out for all 27 reforms and 32 investments, resulting in the conclusion that all measures in the recovery and resilience plan comply with the DNSH principle.

The 'do no significant harm' assessment follows a two-step approach. In a first step, it is assessed if there is a risk that a measure could do significant harm to any of the environmental objectives. In most cases the assessment concludes that there is no risk of significant harm, in which case the measure is assessed as compliant with that principle. In cases where the analysis identifies a risk, a more detailed assessment follows. For some measures[25], which are similar or intertwined in terms of content, the DNSH assessment has been summarised in one single table for presentational purposes. In some other cases, the assessment has been carried out at sub-measure level in more detail[26].

The requirements of the DNSH principle have been integrated in the design of several measures (1.B.3, 1.B.4, 4.C.3)**.** Where appropriate, a dedicated specific milestone specifies concrete steps in the implementation of a measure, such as adoption of funding guidelines, to ensure compliance with the DNSH principle (1.D.2). In the case of the investment measures 2.D.2 and 2.D.3, the relevant Austrian law regulating an investment premium scheme supporting green and digital investments by enterprises explicitly excludes investment in climate-damaging installations and equipment, while prioritising best available technologies and technical standards. Moreover, payments by Austrian authorities to the beneficiaries are conditional on submitting evidence that excludes a negative impact on environmental and climate objectives.

Thermal renovations of both public and private buildings, renewable heating and energy efficiency measures are covered by several components of Austria's recovery and resilience plan (1.A.2, 1.A.3, 2.D.3, 4.B.3, 4.C.3, 4.C.5). While such thermal renovations are

[25] E.g. 1.A.2 and 1.A3, 3.B.1 and 3.B.2
[26] 4.B.3

expected to reduce energy consumption and emissions of fossil origin, they may also generate construction waste. Moreover, extensive use of heating systems based on biomass may raise questions of their impact on air quality, biodiversity and ecosystems. To avoid significant harm to pollution prevention and to the protection of biodiversity and ecosystems, the recovery and resilience plan states that low emission technologies are used in biomass heating systems, compliant with the newest emission limit values and efficiency requirements of the national Ecolabel standards. Additionally, the expected rise in the production of solid biomass for heat in Austria is based on timber and forestry residues extracted in a sustainable manner, in line with the national Bioeconomy Strategy. The relevant measures also indicate that the national emission limits for district heating systems are, to a large extent, stricter than the EU minimum eco-design standards.

Austria's recovery and resilience plan allocates significant resources to environmentally friendly mobility, including rail infrastructure (1.B.5), zero-emission buses (1.B.3), and utility vehicles (1.B.4) with charging stations. The plan confirms that the design of the investment in zero-emissions busses and vehicles will draw on the EU Taxonomy Regulation by following the draft technical screening criteria on urban and suburban transport, road passenger transport (as set out in section 6.3 of the Technical annex to the Final report of the Technical Expert Group on Sustainable Finance, published in March 2020[27]), and infrastructure enabling low-carbon road transport and public transport (as set out in section 6.15 of the above mentioned Technical annex). In respect to the circular economy, waste prevention and recycling objectives, the DNSH assessment indicates that these measures will comply with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol, ensuring that at least 70% of the non-hazardous construction and demolition waste generated on the construction site is prepared for re-use, recycling and other material recovery. Where relevant, measures will be taken to reduce noise, dust and pollutant emissions, whereas noise and vibrations from use of infrastructure will be mitigated by introducing open trenches, wall barriers or other measures and comply with Directive 2002/49/EC. Based on comprehensive environmental impact assessments (EIA), including additional environmental measures (on air, water, soil and human health protection), Austria ensures that no significant harm to the environment is done by the proposed investment in railway infrastructure.

Expansion of renewable energy, decarbonisation of industry, including through hydrogen, also feature among the priorities of the recovery and resilience plan. With the aim to reduce GHG emissions, measure 1.D.2 *Decarbonisation of industry* will fund large-scale transformative projects in energy-intensive sectors covered by the EU ETS. Compliance with the DNSH principle will be ensured by an amendment of the relevant funding guidelines and eligibility criteria specifying that beneficiaries must achieve GHG reductions that are substantially below the relevant ETS benchmarks. To this end, the measure includes a specific milestone. Moreover, each project supported under this measure will have to quantify ex ante the impact of the investment on its raw material intensity and GHG emissions.

[27] https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/200309-sustainable-finance-teg-final-report-taxonomy-annexes_en.pdf.

Promoting integrated projects along the hydrogen value chain is the objective of the planned *IPCEI Hydrogen* (3.D.2). As recalled by the Technical guidance on the application of the DNSH principle under the RRF Regulation, measures promoting greater electrification of carbon intensive sectors, including through hydrogen, are required for the transition towards a climate-neutral economy and thus are deemed as complying with the DNSH principle in the area of climate change mitigation, provided that Member States justify that greater electrification is accompanied by increased renewables generation. Austria satisfies this requirement by the proposed reform of the national support scheme for renewable energy (Renewable Expansion Law, 1.D.1) that aims, through market premiums and investment grants, to expand renewable electricity capacity by 27TWh by 2030. Moreover, the DNSH assessment of the reform stresses its strong environmental considerations. For instance, it favours PV solar energy in built-up areas such as rooftops (rather than in open spaces). As regards hydropower projects, in addition to the required nature conservation (Habitats and Birds Directive) and water (Water Framework Directive) permits, the Renewable Expansion Law provides for a number of ecological criteria with which support to hydropower projects must comply.

The plan also includes a number of further reform measures under subcomponent 4.D *Resilience through reforms* related to spending reviews, sustainability of the pension system, eco-social tax reform, climate action governance, green finance, start-up and equity finance, labour market and skills and simplification of business regulations. The DNSH assessment has confirmed that they do no significant harm to any of the six environmental objectives.

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

4.5 Green transition

The methodology for climate tracking has been applied across all components of Austria's recovery and resilience plan as set out in Annex VI to the RRF Regulation. The estimated costs of the proposed measures are assigned to the appropriate intervention fields for climate change and corresponding coefficients to calculate their contribution to the climate target. The choice of intervention fields reflects the nature, focus, objective or expected outcome of the investments. It should be noted that:

- The proposed reform measures do not have any associated cost within the recovery and resilience plan. In this context, the recovery and resilience plan does not identify intervention fields for them, and they do not contribute to reaching the climate target.
- Some measures in the recovery and resilience plan consist of several sub-measures – for measures where that is the case, the recovery and resilience plan indicates an intervention field for each sub-measure and provides a weighted average of contribution to the climate target for the whole measure.
- The recovery and resilience plan does not propose any increased climate coefficients for any investment measure to take account of accompanying reforms.

- Where relevant, specific safeguards were introduced through selection criteria for the investments or provisions in the milestones and targets, to ensure that the characteristics of the projects funded by the Facility are in line with the condition set out in Annex VI to the RRF Regulation.

Overall, the measures contributing to the climate objective account for EUR 2.032 billion, representing 58.7% of the total financial allocation under the RRF to Austria's plan.

Climate target

Out of the 16 subcomponents in Austria's recovery and resilience plan, eight include investments contributing to the climate and environmental objectives.

Investment in sustainable mobility account for the largest contribution (component 1.B, EUR 848.6 million) to the climate target. The investments comprise the construction of new railways and electrification of regional railways (1.B.5), promotion of zero-emission buses and vehicles, including charging and refuelling stations (1.B.3, 1.B.4). In addition, a general investment premium scheme (Green investments in enterprises, 2.D.3) will support, among others, private investment in e-mobility and alternative fossil-free drives, with an expected climate contribution of EUR 298.5 million.

Investment in renovation of buildings, energy-efficiency and renewable energy will provide a further significant contribution to the climate target. They promote the exchange of oil and gas heating systems in 31 800 dwellings by renewable technology such as biomass, heat pumps and efficient district heating (EUR 158.92 million, 1.A.2). Support for complex thermal refurbishment of 2 250 family houses is aimed at reducing emissions as well as energy poverty (EUR 50 million, 1.A.3,). Moreover, thermal renovation of buildings, renewable energy and energy-saving measures will be supported also by the general investment premium scheme for enterprises (2.D.3), providing a climate contribution of EUR 205.5 million.

The recovery and resilience plan contains also measures promoting biodiversity, circular economy, climate adaptation and prevention of climate related risks (component 1.C) that contribute EUR 140 million to the climate target. They comprise investments in the preservation of biodiversity, restoration of degraded ecosystems, and a new biodiversity monitoring system. Circular economy will benefit from investments in reverse vending systems and measures to increase the reuse quota of beverage containers (1.C.3), in retrofitting of old and construction of new waste sorting facilities (1.C.4), and from a repair bonus that aims to raise the share of reused and repaired electronic equipment (1.C.5). While this set of measures aims to reduce waste upfront, it will also ensure that materials are recycled and kept in circulation as long as possible. As result of these investments, the collection rate of plastic beverage packaging is expected to increase from 70% to 80%, whereas by 2026 at least 50% of Austrian plastic waste is expected to be sorted for further recycling (it was 33% in 2018). With a focus on adaptation to climate change in town centres (4.B.3, EUR 44 million climate contribution), the plan includes support for municipalities and businesses for their investment in building renovation, façade greening, high-efficiency district heating, and rehabilitation of brownfield sites.

The recovery and resilience plan puts a significant focus on renewable energy and decarbonisation of industry. Aiming to achieve substantial savings in industry-related GHG emissions, energy consumption and use of raw materials, the recovery and resilience plan

proposes investment in large-scale transformative projects (1.D.2), including highly innovative pilots and demonstration activities. Similarly, the planned *IPCEI Hydrogen* (3.D.2) aims to promote integrated projects along the hydrogen value chain, covering production, distribution, storage and application, in particular in energy-intensive industries and the transport sectors. Together, these two measures contribute for EUR 225 million to the climate target of Austria's recovery and resilience plan.

Green transition

Austria's recovery and resilience plan shows a strong ambition to accelerate the green transition and to address the challenges resulting therefrom. The investments and reforms included in the recovery and resilience plan are generally in line with the context of the European Green Deal and put in perspective both the environmental and economic benefits of the green transition to foster recovery and resilience.

The measures in the plan follow the policy objectives of, and the challenges identified by the NECP. They contribute to Austria's 2030 energy and climate targets and to its goals to decarbonise the electricity system by 2030 and achieve climate neutrality by 2040. The plan puts emphasis on sustainable mobility and buildings, thus addressing the two biggest GHG emitting sectors in Austria – with several components dedicated to this goal. The investment measures will bring positive climate and environmental effects, with a lasting impact that will be amplified by the reforms proposed in the recovery and resilience plan.

Energy efficiency and just transition

Investment in renovation and energy efficiency of buildings, in renewable energy and climate-friendly heating will lead to lower levels of GHG emissions, will improve climate change adaptation, reduce air pollution and energy consumption, and are estimated to also generate tangible employment effects. These effects will be reinforced by a regulatory reform (Renewable Heating Law, 1.A.1) that aims to accelerate the phasing out of oil boilers and the roll-out of renewable heating technology. Investment in renewable heating systems (Exchange of oil and gas heating systems, 1.A.2) will save at least 184 000t CO_2 equivalents annually. Furthermore, the design of the proposed investment reflects also just transition considerations ('leave no one behind') by targeting low-income households. The planned renovation projects under the Combating energy poverty programme (1.A.3) are expected to decrease the energy consumption per home by 67% on average.

Sustainable mobility

The recovery and resilience plan acknowledges the specific challenge and strategic importance of making the transport sector more sustainable for achieving Austria's 2030 climate targets and climate neutrality by 2040. It contains measures promoting the development and use of cleaner mobility through a range of investments, covering various means of public and private transport. Investment in new railway infrastructure, zero-emission busses and vehicles, and charging stations will be accompanied by useful reform measures. A new comprehensive *Mobility Masterplan 2030* (1.B.1) will frame various sector-specific strategies and actions that are necessary to bring about a permanent and continuous reduction in transport-related CO_2 emissions below the peak in 2019. The proposed Introduction of 1-2-3 Climate ticket (1.B.2) will facilitate the modal shift towards rail and public transport. This reform will expand support for nationwide and regional public transport services and

simplify the currently complex price and tariff structure, by creating a joint ticketing platform. The investment in clean vehicles and e-mobility infrastructure (1.B.3, 1.B.4, 2.D.3) will be reinforced by a regulatory reform (4.D.11), simplifying the permit procedure for private investment in solar energy, charging and refuelling infrastructure. The first stage of the eco-social tax reform adopted in 2020 contained useful elements greening the transport-related taxes. A second stage of the Eco-social tax reform (4.D.5) included in the recovery and resilience plan, which will introduce a pricing mechanism for CO_2 emissions in non-ETS sectors including road, will provide further impetus for sustainable mobility transition. Overall, the reform is expected to reduce annual CO_2 emissions by at least 2.6 million tonnes by 2030.

Decarbonisation and renewable energy, including hydrogen

Increased investment efforts are needed to decarbonise Austria's energy-intensive industries, to reach Austria's goal of 100% renewable electricity by 2030, to reach its energy efficiency target, and to adapt energy infrastructure to the expected increased share of renewables. Austria has a strong industrial base with a high share of energy-intensive industries, in particular iron and steel, stone and earth, paper and pulp, refinery and petrochemicals. The recovery and resilience plan contains a dedicated instrument (1.D.2) for major projects aimed at decarbonising industry, increasing its resource and energy efficiency, supporting eco-innovation and advanced technology to reduce the environmental impact of the treatment of hazardous waste. The planned IPCEI Hydrogen (2.D.3) promotes the production, storage and application of renewable hydrogen, aiming to reduce energy consumption and GHG emissions, and to establish an integrated market for green hydrogen, which is deemed a key enabler for Austria's energy transition. These investment efforts will be supported by a major reform of the national support system for renewables through a new Renewables Expansion Law (1.D.1). This reform envisages market premiums and investment support for wind power, hydropower, solar energy and biomass, aimed at increasing annual electricity generation from renewables by 27 TWh by 2030 and to produce 5 TWh of renewable gases, including hydrogen.

Environmental policies, including biodiversity and circularity

The recovery and resilience plan contains relevant actions on biodiversity, circular economy and climate adaptation (subcomponents 1.C and 4.B) that will help meet the Union's targets for environmental policy and protect Austria's richness in biodiversity, natural carbon sinks and the above-average size of its Natura 2000 network. Investment in a new biodiversity fund and a biodiversity monitoring system (1.C.2) will reinforce the implementation of Austria's biodiversity strategy. The investment in the resilience and greening of municipalities will be mutually reinforced by a new Soil protection strategy (4.B.1). This reform is expected to address challenges caused by the intensive and quickly expanding land-take in Austria that affects the resilience to floods and heat waves, fragments open cultivated landscapes and leads to soil sealing and high infrastructural follow-up costs.

Investment in recycling, reuse, repair and better waste management (1.C.3, 1.C.4, 1.C.5) will also benefit from regulatory reforms. A new take-back system in the retail sector will be combined with a new legal framework for single-use plastic and metal beverage packaging (1.C.1). This is particularly relevant for the plastic packaging recycling rate that is currently significantly below the EU 2025 target, leading also to very high shares of plastic

waste (71%) and mixed plastic (over 90%) waste being incinerated. The modernisation investment in plastic waste sorting facilities will be underpinned by a reform of the Waste management law (1.C.1).

Many of the measures in the recovery and resilience plan will help improve air quality standards that currently suffer mainly from transport, heating and industry related emissions. Although they are not specifically dedicated to this objective, the investments and reforms in several components of the recovery and resilience plan, ranging from eco-friendly mobility, energy-efficiency, renewable energy, greening of town centres, to biodiversity and climate adaption measures, will all indirectly contribute to better air quality in Austria.

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 green transition and to addressing the challenges resulting from it and ensures that at least 37% of its total allocation contribute to the climate target. This would warrant a rating of A under criterion 2.5 of Annex V to the RRF Regulation.

4. 6 Digital transition

Digital tagging

Austria's recovery and resilience plan correctly follows the methodology for digital tagging set out in Annex VII to the RRF Regulation, by identifying intervention fields and corresponding coefficients for the calculation of each measure's contribution to the digital objectives. The measures often consist of several sub-measures. Where that is the case, the recovery and resilience plan indicates an intervention field for each sub-measure, and digital tagging is correctly assigned at sub-measure level. The choice of intervention fields for the digital transition is well justified and reflects the nature, focus, objective or expected outcome of the investments included in the component.

Overall, the Austrian plan allocates to digital objectives 52.8% of its total financial allocation under the RRF; therefore, the digital target of 20% is largely surpassed. The main contributions to this target comes from components 2, Digital recovery, and 3, Knowledge-based recovery. Particularly prominent within component 2 is the measure to expand the broadband coverage where EUR 891 million are earmarked for the deployment of Gigabit-capable networks (2.A.2). Component 3 is the second largest contributor to the digital objective with EUR 352 million. It includes measures to promote quantum science and technologies (3.A.2), biomedical research (3.A.3), and digital research infrastructures (3.A.4). Investments for the digitalisation of the healthcare and cultural sectors are included in component 4, Just recovery, and amount to EUR 26.5 million.

Digital transition

The Austrian recovery and resilience plan addresses the challenges related to the digital transition with a broad, cross-cutting approach. Component 2, Digital recovery, is completely dedicated to the digital transition and consists of six investments and three complementing reforms focusing on the expansion of broadband and the digitalisation of schools, the public administration, and enterprises. Component 3, Knowledge-based recovery, also devotes 56% of its resources to the digital transition. Component 4, Just recovery, includes investments into the digitalisation of healthcare services and cultural heritage.

The measures in the Austrian recovery and resilience plan that contribute to the digital transition or help address the related challenges are aligned with the strategic action plan 'Digital Austria in 2050'. They are also consistent with the Austrian Broadband Strategy 2030. These measures are also oriented towards various European initiatives such as the EU digital strategy, the EU skills agenda, the European Pillar of Social Rights, the European Education Area, and the Digital Education Action Plan.

The measures in the plan cover all four flagships related to the digital transition. Overall, the digital measures in the plan are well aligned with the digital objectives of the RRF. The Austrian plan features at least one reform or investment from each of the four flagships of *Modernise, Connect, Scale-up* and *Reskill and Upskill* laid down in the Commission's Annual Sustainable Growth Strategy (COM/2020/575).

The plan includes considerable investments into connectivity. Subcomponent 2.A focuses on the widespread deployment of Gigabit-capable networks and the establishment of new symmetrical Gigabit connections in underserved, disadvantaged and rural areas. Investments will be allocated towards the two funding directives, *Access* and *OpenNet*, of the Austria Broadband Programme 2030. *Access* has the objective to improve broadband availability in those areas of Austria, which, due to a market failure, are not or are insufficiently developed by private operators. *OpenNet* has the objective to support the nationwide broadband availability of at least 100 Mbit/s over a planning horizon of up to six years, including a one-year planning phase for large projects. The investment is expected to be able to provide Gigabit connections to between 150 000 and 200 000 households. Additional investments by telecom operators triggered through the RRF are estimated at more than EUR 2 billion. The sustainable and fair expansion of the Gigabit network is expected to promote regional cohesion and to have a lasting impact on the digital transition, competitiveness and resilience of firms.

The plan includes significant investments in the digitalisation of schools and education. Austria performs below the EU average regarding the use of computer and internet in lower secondary education and provision of IT-based teaching varies greatly between schools. Distance learning due to the COVID-19 pandemic exacerbated unequal learning opportunities because of a lack of devices and digital competences. To address these challenges, the reforms and investments under subcomponent 2.B provide access to digital education and to digital equipment for students and support the digitalisation of teaching practices of lower secondary schools. The investment into digital terminal equipment is planned to provide gradually around 80 000 students in the fifth grade with digital devices. All schools are supposed to implement digital teaching and learning experiences. The measures are complemented by training for educators, development of basic IT infrastructure for schools, the establishment of a quality label for learning apps, and the development of a 'Digital School Portal' and a portal for digital teaching/learning resources (*Eduthek*). All these measures will be key to address the challenges Austria faces with the development of digital skills, digital inclusion and ensuring access to quality education and equal opportunities.

Subcomponent 2.D (Digitalisation and greening of businesses) dedicates significant investments (EUR 101 million) to the digitalisation of businesses, especially SMEs. In the DESI 2020 results, Austria performs below the EU average regarding the integration of digital technology by businesses. Austrian companies, especially SMEs, do not take full advantage of the use of digital technologies such as cloud services or big data. The digitalisation of SME

package (2.D.1) fosters the digitalisation of SMEs (KMU.DIGITAL) by providing advisory support on digital business models and processes (including resource optimisation), e-commerce and online marketing, IT and cybersecurity, and digital administration. The measure also provides incentives for financing of new investments in digitalisation projects for SMEs and also supports the implementation of e-commerce projects of SMEs, new investments in connection with e-commerce, and related services by external providers (KMU.E-Commerce). Finally, the COVID-19 investment premium for companies promotes new investments in depreciable fixed assets of Austrian businesses, notably those related to digital solutions and digital infrastructure (2.D.2). Overall, more than 15 000 SMEs are expected to benefit from the investments within the framework of the programmes KMU.DIGITAL and KMU.E-Commerce, and around 10 000 enterprises from the digital investments via the COVID-19 investment premium. These investments should boost the competitiveness of firms and significantly address the challenges Austria faces with the adoption of digital technologies. As a result, these investments are expected to have long-lasting effects contributing to the economy's resilience and growth.

The recovery and resilience plan includes significant investments into e-government, digital public services and IT consolidation. The investments in the digitalisation of the public administration (2.C.2) amount to EUR 160 million and include (i) cross-departmental projects to implement IT consolidation in the federal government, (ii) projects with a cross-departmental impact for the development of citizen and business services, and (iii) projects aimed at accelerating and improving the efficiency of procedures. These investments will also implement the once-only principle in order to reduce the administrative burden on citizens and businesses (2.C.1). These investments are expected to have a long-lasting impact on the digital transition of the public administration and will make an important contribution to a citizen- and service-oriented administration with a modern digital infrastructure. These investments will also be key to offer more digital services, to increase efficiency and quality of services, as well as to limit the administrative burden on companies and the administration.

Subcomponent 3.A (Research) of the recovery and resilience plan allocates considerable investments to quantum research, life sciences, and digital infrastructures. The measure Quantum Austria (3.A.2) funds research infrastructures (including software development) and research cooperation to expand the knowledge base development of technological concepts for quantum computing / simulation / communication and to further establish technologies for the entire field of quantum sciences (hardware and software). Another digital investment is planned to develop a new centre for biomedicine at the campus of the Medical University of Vienna, including the construction, infrastructure and digital equipment for research (3.A.3). The centre's focus lies in disease monitoring and prevention, and in biomedical research. Further investments are allocated towards digital research infrastructures for the sustainable development of universities (3.A.4). The investments under subcomponent 3.A (Research) are flanked by a research, technology and innovation strategy (FTI Strategy 2030, 3.A.1). Overall, the subcomponent is expected to boost competitiveness, foster research and innovation and support Europe in ensuring technology sovereignty.

Subcomponent 3.B (Upskilling and reskilling) includes significant investment into the digital skills of the adult population. This includes a reform and investment to (i) improve the incentive and material conditions for the unemployed to participate in training or other qualification measure (education bonus, 3.B.1), and (ii) increase the availability of retraining

and further training measures (3.B.2). The digitalisation components of the retraining and further training measures promote training in subject-specific occupational fields and basic IT skills. Overall, around 40 000 unemployed are expected to benefit from the education bonus and around 94 000 people from retraining and further training measures. These investments are central to addressing the impact of the COVID-19 pandemic and the impact of societal and technological changes. The investments contribute to the digital transition and help address the related challenges.

The Austrian recovery and resilience plan includes a planned IPCEI on microelectronics and connectivity (3.D.1). The aim is to strengthen the microelectronics sector where Europe has so far been dependent on imports from third countries (e.g. the development of innovative networks and microelectronics technologies). Innovations stemming from research projects to be funded within the framework of the planned IPCEI can be expected to contribute to the development of key technologies, the modernisation of energy systems and thus also to the European and national digitalisation goals. The development of semiconductor technology, to be supported within the scope of this project, provides the foundation for all digital applications and related projects and is thus an important prerequisite for the digital transformation.

Other investments in digitalisation are planned for the cultural sector, allocating EUR 16.5 million towards the digitalisation of cultural heritage (4.C.4). This includes steps (i) to modernise the portal '*Kulturpool*,' which brings together the data from different cultural heritage institutions, makes it available digitally and allows for the re-use of the collected data; and (ii) to digitalise outstanding works of art and cultural heritage for their preservation and accessibility by a wider public. The education sector will also benefit from this initiative by having access to larger and improved learning resources. These investments are expected to have a lasting impact and to contribute to the digital transition of the cultural sector.

The plan also includes investments in the digitalisation of health services for mothers (4.A.3). Investments cover the development, planning and implementation of the electronic mother-child passport platform, which ensures an optimised multi-professional usability for all users by including user-friendly software interfaces for people with limited digital skills, interfaces to other software, and the implementation of multilingual digital communication tool. The electronic mother-child passport aims to improve health opportunities for pregnant and breastfeeding women and their children and to increase social cohesion, by reaching out particularly to those women who do not necessarily take up these services. These investments contribute to the digitalisation of the health services for mothers.

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 and to addressing the challenges resulting from it and ensures that at least 20% of its total allocation help support digital objectives. This would warrant a rating of A under criterion 2.6 of Annex V to the RRF Regulation.

4.7 Lasting impact of the plan

The recovery and resilience plan includes an ambitious package of measures aimed at addressing challenges identified in the context of the European Semester. The measures in the plan also facilitate the green and digital transitions and strengthen the growth potential,

job creation and economic and social resilience of Austria. The proposed reforms and investments are expected to have a lasting, positive impact on the Austrian economy and society.

Most of the components of the plan are assessed as having a lasting impact on Austria. The measures presented in this respect comprise structural changes to the administration or relevant institutions and policies. The lasting impact refers to policy areas where the estimated long-term impact on growth potential and employment is significant, as specified in Section 4.3 above, but also in areas where structural changes are expected to improve social and cultural aspects that are not necessarily quantifiable. Also, the plan will contribute to achieving the objectives of the new Industrial Strategy[28] for fostering the twin transition, making EU industry more competitive and enhancing Europe's open strategic autonomy. Implementation can build on Europe's assets as the home of industry, talents, innovators and creators, values and social market traditions.

Structural change in the administration and institutions

The plan brings about structural changes in the country's public administration and related institutions. This is particularly the case for the digitalisation of the country's public administration (subcomponent 2.C Digitalisation of the public administration), digitalisation in the primary health care sector and the mother-child pass platform (subcomponent 4.A Health care), and the reforms on the start-up package, and setting up a one-stop-shop for the long-term unemployed (subcomponent 4.D Resilience through reforms). In many cases, the measures in various components of the plan are designed to reduce administrative burden and increase the level of digitalisation of relevant institutions, which is expected to have a lasting impact on the quality of services and the business environment.

Investments in the digitalisation of the public administration have a lasting impact by increasing the number of digital public services and consolidating IT infrastructures, which increase quality and efficiency of the public administration. One major measure includes the support to cross-departmental projects to implement IT consolidation in the Federal Government (2.C.2). The departments often use different data centres, software, and hardware as well as service providers resulting in avoidable costs and fluctuating quality. Furthermore, measures intend to facilitate projects with a cross-departmental impact for the development of citizen and business services and aim to accelerate and improve the efficiency of procedures.

The Once-only reform complements the significant investments into the digitalisation of the public administration and has a lasting impact by reducing the administrative burden on citizens and businesses (2.C.1). Companies and authorities are confronted with high financial and organisational expenses because of information obligations under federal law. In 2006, about 5 700 information obligations caused annual administrative costs for companies amounting to about EUR 4.3 billion[29]. With the *Once-Only* principle, data will be reported once to the administration, and a cross-authority data exchange will be possible.

[28] COM(2020) 102 final, https://ec.europa.eu/info/sites/info/files/communication-eu-industrial-strategy-march-2020_en.pdf

[29] Baseline survey conducted by the Federal Ministry of Finance.

Therefore, the data management of the Austrian administration will be re-organised to create the basis for building further administrative reform projects.

The reform *One-stop-shop* for long-term unemployed is expected to have a lasting impact in Austria's social security system (4.D.10). Many administrative bodies need to cooperate to create a one-stop shop by coordinating and ensuring access to services of different institutions (health insurance, rehabilitation via pension insurance, federal social welfare office, various provincial institutions such as family counselling centres or care institutions, education directorates, social welfare agencies, etc.). The reform aims to ease access to training and qualification, and to promote inclusive employment for long-term unemployed.

Lasting structural changes in the administration of health care are implemented through the reform and investments into primary care and the introduction of an electronic mother-child passport. The primary health care measures aim to establish primary care units (PVE) at the federal level (4.A1, 4.A.2). These measures will ensure the provision of high-quality health and long-term care throughout Austria and guarantee the availability of well-trained health personnel. Also, the electronic mother-child passport (4.A.3) is expected to have a positive and permanent impact on the Austrian health care system.

Several measures aim to reduce administrative burden and to improve the business environment. The reform start-up package (4.D.8) creates a new company form ensuring a non-bureaucratic establishment procedure and with a low start-up capital and includes simplification measures such as the *Employee Participation*, *Once-only* and *Grace Period Implementation.* Furthermore, under the liberalisation of commercial law and the provision of business-oriented services three measures – the facilitation of business transfers (4.D.11), the amendment of the Occasional Transport Act (4.D.11), and the implementation of permit-free photovoltaic systems and e-vehicle charging stations (4.D.11) – are expected to have a lasting impact on the justice system. They are also expected to contribute to the green and digital transformation by reducing the bureaucratic burden and legal hurdles for the installation of photovoltaic systems and e-charging stations.

Structural changes in policies

Structural changes in policies are envisaged in all subcomponents of the plan. Many of these changes help enhance economic growth, contribute to job growth, and mitigate effects of the COVID-19 crisis. The comprehensive reform and investment package within the Austrian recovery and resilience plan (i) focuses on the green and digital transition; (ii) aims to improve Austria's performance in innovation, research, and technology; (iii) focuses also on enhancing human capital with targeted active labour market and education measures; and (iv) aims to address weaknesses of the Austrian business environment and to improve the framework conditions for start-ups.

Several investments and reforms related to GHG reduction are expected to have a lasting impact. These cover measures to move towards increasing the use of renewable energy sources (subcomponent 1.A Renovation wave), environmentally friendly transport (subcomponent 1.B Environmental mobility) and other investments in green transition. The Renewable Heating Law (1.A.1) will prohibit the installation of heating systems that are

operated with liquid or solid fossil fuel from 2022 and regulates the framework conditions for the replacement of old heating systems. It is complemented by investments to replace climate-damaging oil and gas heating systems by climate-friendly ones (1.A.2). Furthermore, social resilience will be strengthened by promoting measures to sustainably reduce the energy costs for low-income households (1.A.3). Also, the renovation wave will ensure that jobs are created or secured. Regarding environmentally friendly transport, the Austrian Mobility Masterplan 2030 (1.B.1), the introduction of the 1-2-3 climate tickets (1.B.2), the sizable investment in emission-free vehicles (1.B.3) and their infrastructure (1.B.4), and the exclusive use of renewable energy (electricity and hydrogen) for their operation are expected to bring about lasting changes. These measures will contribute positively to sustainable and inclusive growth and to boosting the growth potential of the Austrian economy. Moreover, the eco-social tax reform and reform proposal for climate governance of subcomponent 4.D Resilience through reforms, will help reduce the economic costs of climate change and foster green investments. This is expected to contribute positively to the growth perspective of the Austrian economy. Therefore, these measures are expected to help reach the climate targets in 2030 and achieve the aim of carbon neutrality by 2050 in the European Union.

Subcomponents 2.A and 2.B, providing for the broadband expansion and digitalisation of schools respectively, are expected to lead to lasting structural changes by their positive effect on territorial cohesion. They aim to provide equal opportunities for people living in urban regions and rural areas, to enhance future territorial development and to strengthen Austria as a business location, where all regions can offer the same services. Therefore, they are expected to contribute to Austria's growth potential and to enhancing the competitiveness of its economy.

Lasting changes are also expected in the approach of provision of health care services under subcomponent 4.A Health care and by the long-term care reform and by the implementation of community nursing under subcomponent 4.B Resilient municipalities. These measures aim to structurally increase accessibility to the related health care services and intend to support in particular people with limited access to such services.

Lasting impact

In the long term, the economic impact is mostly driven by efficiency gains from research and innovation, and, in particular, by the digital transformation, while in the short term, public and private investments are the main drivers. Relative to a scenario without the RRF, Austria estimates that the RRF-financed investments and the reforms accompanying them are expected to contribute to a 0.4% increase in GDP after two years, a 0.9% increase after five years and a 1.2% increase after twenty years. The corresponding impact on employment is estimated at 0.3%, 0.5% and 0.6%, respectively. The RRF is also estimated to have a lasting impact on the budget balance, leading to an improvement of 0.2 percentage points after two years, 0.3 percentage points in five years and 0.6 percentage points in 20 years.

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

4.8 Milestones, targets, monitoring and implementation

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

The Ministry of Finance is the overall coordination body of Austria's recovery and resilience plan, while the respective ministries are responsible for the implementation, monitoring and control of their measures. The Ministry of Finance is the overall coordination body for the implementation, monitoring of progress, and reporting on the plan. The individual ministries are responsible for the implementation, monitoring and control of the measures within their respective responsibility. The responsible ministries are clearly identified for all reform and investment measures and have to indicate a contact point that is the responsible entity for reporting on the milestones and targets. The ministries have appointed the entity responsible for drawing up the management declaration. Each ministry must ensure that their management declarations comply with all the requirements as set out in the Regulation. The Ministry of Finance will produce a central management declaration based on the individual management declarations and will submit the payment requests after the corresponding milestones and targets have been fulfilled.

The plan describes adequately the intended monitoring and reporting mechanisms. The plan clearly describes that individual ministries, responsible for the implementation of certain measures of the plan, are responsible for audit, control, and reporting on the progress of milestones and targets. It is also within the responsibility of the ministries to keep the proofs and records related to the achievement of milestones and targets, in order to enable a verification at a later stage, in particular to ensure verification of this information in line with the procedures of the European Commission. The Ministry of Finance in its role as the overall coordinating body will constantly update and publish a report, reflecting the progress of milestones and targets, as reported by the responsible ministries. The Ministry of Finance asks the individual ministries to flag any possible delay in achieving milestones and targets and thus would be in a position to inform also the European Commission about potential delays.

Milestones, targets and indicators

The milestones and targets in the Austrian plan constitute an appropriate system for monitoring the plan's implementation. The monitoring indicators are in general sufficiently clear and comprehensive to ensure that their completion can be traced and verified. The milestones and targets usually 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 Austrian authorities appear sufficiently robust to adequately justify 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.

Overall, milestones and targets are designed around the life-cycle of reforms and investments and ensure the proper implementation of the measures. For the reform measures, the milestones, and targets have a clear focus on ensuring implementation and on the expected outcomes. As regards the investment measures, there is, wherever possible and reasonable, a milestone or target, which allows verifying the full implementation of the

investment. For measures with inherent uncertainty about the outcome, e.g. because they incentivise research and development or are strongly demand-driven, preference has been given to the disbursement of funds. This has been complemented with further milestones or targets to ensure also the qualitative success of the measure, wherever possible and reasonable. For a number of measures, appropriate intermediate milestones or targets have been chosen to check if implementation is underway, with a view also to allow possible corrective action, in case of major bottlenecks or delays are identified.

Overall organisational arrangements

The Ministry of Finance will ensure the overall coordination of the implementation and the monitoring and control system. The division of tasks and the interlocking between the monitoring and the audit and control systems are described in a comprehensive way in the plan. While the implementation and the monitoring and control tasks for the measures are delegated to the individual ministries, it is evident that the Ministry of Finance will take full responsibility to ensure that all the requirements related to the implementation and the monitoring and control system are fulfilled.

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

4.9 Costing

Austria has provided individual cost estimates for all investments included in the recovery and resilience plan for which funding through the Facility is requested. The Austrian recovery and resilience plan provides cost estimates for all 32 investments and one reform for which funding through the Facility is requested. In accordance with the guidance provided to Member States, individual cost estimates have been provided for all relevant cost components. No cost estimates have been provided for 27 reform measures entailed in the plan, for which no funding from the Facility is requested, irrespectively of whether they have a budgetary impact or not. Annex III on milestones, targets and costing was duly completed and presented. For several measures, Annex I provides complementary information on individual cost estimates. Austria has submitted extensive supporting documents to substantiate the cost estimates or the main cost drivers in cases where public information was unavailable.

The methodology used to derive cost estimates depends on the type of investment, the targeted beneficiaries and implementation status of the project. Around 25% of the estimated cost consist of investment support to private households and businesses to incentivise environmentally friendly mobility and living. This form of support is largely demand driven and the cost estimates are generally based on experience from previous roll-outs of similar funding programmes or already evaluated applications for running programmes. Support to the corporate sector constitute roughly 12% of the total estimated costs of the plan and are aimed to step up recycling systems, the digitalisation projects of small and medium-sized companies and support the planned IPCEIs. The provision of cost

estimates for the planned IPCEIs is particularly difficult as preparations at European level are still at an early stage and priorities and participants are yet to be determined. About 14% of the estimated costs of the plan are targeted to human capital formation (re- and up-skilling, research and learning). Another 12% of the estimated costs are planned for gross fixed capital formation (e.g. electrification of railways, research) and cost estimates are generally very precise and well documented. Overall, the precision of the cost estimates hinges on how far a specific programme has been implemented: if the legal basis of the funding and hence the funding criteria (*Förderungsrichtlinien*) represent a milestone themselves and if the beneficiaries eligible for funding are yet to be defined, only expected values for the costs can be determined.

The reforms and investments included in the plan take into account the eligibility provisions set out in the Regulation. Based on the information provided in the plan, all reforms and investments are implemented after 1 February 2020 and all relevant actions, i.e. milestones and targets, as well as payment commitments related to their implementation are planned to be realised by 31 August 2026 at the latest. Value-added tax (VAT) is not part of the cost estimates, for which funding from the RRF is requested[30]. For all investments included in the plan, clear information is provided about additional investments from other EU funds (see below)[31]. For measures providing investment support, co-financing from other EU funds (e.g. ERDF, EAFRD) can generally be excluded through the defined funding criteria and the corresponding selection of the implementing body (*Abwicklungsstelle*).

The plan includes two measures with costs of a recurrent nature, which produce longer-term benefits in line with the objectives of the Facility and for which financing will be sustainably ensured after the duration of the Facility[32]. The respective measures respond to the country-specific recommendations addressed to Austria in 2019 and 2020 and contribute to the Facility's overarching objective to promote social and territorial cohesion (pillar four). The measures are part of component 4 (Just recovery) and aim to support disadvantaged groups, such as those at risk of poverty and people with health impairments. Overall, the corresponding costs will not lead to a fiscal deterioration after the time horizon of the recovery and resilience plan.

[30] A dedicated statement is included for every individual investment: "Value added tax is not part of the costs of the measure in question, for which funding from the RRF is requested." More specifically, support to the corporate sector do not include a VAT refund because of the deduction of input tax (*Vorsteuerabzug*). In the case of transfers, the share of the transfer in the total cost is capped in a way that the financing of VAT can be excluded.

[31] The plan includes one project (1.B.5. Construction and electrification of regional railways (Koralmbahn)), for which Austria received funding through the Connecting Europe Facility. However, based on the supporting material provided, double funding can be ruled out.

[32] These measures are 4.A.3 (Mother-child pass) due to necessary software updates and 4.A.4 (Early aid for disadvantaged pregnant women), for which there is however a political commitment to the sustainable funding in the form of a basic resolution by the federal level, the Länder and social insurance agencies in the Federal Target Control Commission.

Reasonable costs

At the level of individual cost estimates, reasonability is achieved if the calculations behind the cost estimate are comprehensible and based on sound underlying assumptions. The external validation of a cost estimate by an independent public body is deemed to increase the reasonability but it is not mandatory. At the level of the plan, reasonability of the cost estimates is rated A if estimated costs are reasonable to a high extent for a large majority of all reforms and investments, for which financing through the Facility is requested. Based on the information provided in Annexes I and III to the plan, it is clear how Austria estimated the costs of individual investments. The cost estimates can be readily recalculated and underlying assumptions (e.g. average costs derived from the roll-out of previous similar programmes) are clearly identified. In the Austrian plan, a majority of the individual cost estimates are assessed to be reasonable to a high extent. In cases where funding criteria and beneficiaries are not yet sufficiently known, expected values for the costs are rated to be reasonable to a medium extent.

Plausible costs

At the level of individual cost estimates, plausibility is achieved if the cost estimates are substantiated by reference costs (e.g. historical data) for the key cost drivers, that are in turn supported by clear evidence and in line with comparable reforms or investments. At the level of the plan, plausibility of the cost estimates is rated A if estimated costs are plausible to a high extent for the majority of reforms and investments representing at least 50% of the total cost and if estimated costs are plausible to a high or medium extent for a large majority of all reforms and investments. Austria provided reference costs at least for the key cost drivers of the majority of investments included in the plan. In most of the cases, the reference costs were supported by clear evidence (e.g. data on unit costs from evaluation reports of previous programmes). In the Austrian plan, all individual cost estimates are assessed to be plausible to a high or medium extent.

No double Union financing

Austria provided sufficient information and evidence that the amount of the estimated total cost of the plan to be financed under the Facility is not covered by existing or planned Union financing. At the level of individual cost estimates, Austria provided sufficient information as to whether measures or parts thereof are (planned to be) covered by other Union financing. In a single case where other Union financing is involved, Austria has indicated the relevant instrument and the amounts covered together with a clear description of which parts of the measures are covered. Those costs were taken out from the cost calculation.

Commensurate costs and cost-efficiency

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. Cost-efficiency is established on the basis of the cost assessment, the expected national economic and social impact as well as the number of country-specific recommendations addressed by the plan.

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

4.10 Controls and audit

Robustness of internal control system and distribution of roles and responsibilities

The Austrian recovery and resilience plan clearly identifies the roles of the actors responsible for controls. The plan includes a list of implementing bodies. The Ministry of Finance is the central coordinating body, and line Ministries are responsible for supervising and controlling measures they implement directly or through implementing agencies. They are subject to the control of their internal audit units. The central audit body is the national Court of Audit (*Rechnungshof*). The Ministry of Finance's Anti-Fraud-Office[33] is responsible for detecting fictitious companies, supported by Predictive Analytics Competence Centers. The Accounting Agency (*Buchhaltungsagentur des Bundes*) is responsible for the review of bookkeeping. The Financial Police is responsible for the practical recovery and precautionary measures. Each Ministry has an internal audit unit (*Innenrevision*), which is tasked with controlling the effectiveness of controls and the risk management system. Moreover, these units are tasked with auditing implementation processes regarding the prevention of serious irregularities and double funding for measures implemented by the relevant ministries and the implementing agencies under their control. Control plans in each ministry spell out the role, mandate and competences of the internal audit units. The Ministry of Finance will provide the consolidated summary of audits with the management declaration, which will be based on individual management declarations provided by the internal entities appointed for this purpose in the responsible line ministries.

The plan clearly describes the responsibilities within the internal control system. The plan describes the legal mandate of the central audit authority and its independence from the government. The audit authority is responsible for auditing all national income and expenditure, including audits of entities acting on behalf of the government. The plan explains that the audit authority overall conducts 80-100 audits per year (not specifically for the RRF) and has conducted audits of internal control systems of public bodies in recent years. Selection of audits is based on risk, statistical methods and suggestions by citizens. To complement, the Federal Accounting Agency (*Buchhaltungsagentur des Bundes*) is responsible for the case-by-case and ad hoc examination of all accounting, including personnel calculation, by the budgetary authorities and the legal entities administered by them, which can also be carried out on the spot. These checks verify that payments and offsetting are carried out correctly, that supporting documents are properly available and

[33] *Amt für Betrugsbekämpfung* located at Ministry of Finance, i.e. not the distinct Federal Bureau of Anti-Corruption located at the Ministry of Interior.

comply with the rules and that valuables and other assets are present and recorded. To this end, the Accounting Agency must be given access to all documents on the spot. An audit report will be drawn up for each audit, setting out the nature, scope and the main findings of the audit. If the audit reveals significant shortcomings, the responsible authorising officer must take remedial measures. The results of the checks are forwarded to the Court of Audit. The Federal Ministry of Finance will ask the Accounting Agency to carry out appropriate sample checks as part of the plan, taking into account the risk assessment.

The plan describes the individual control mechanisms at the level of the implementing Ministries. Each Ministry has an audit regulation laying down the activities relating to the internal audit of the administration, to verify compliance with relevant rules. This ensures monitoring of the effectiveness of controls and risk management systems. The various elements of the audit setup are described in the corresponding parts of the plan. To fulfil the requirements of Article 22 of the RRF Regulation, the internal audit unit within each Ministry will conduct audits on the processes with regard to arrangements for the prevention, detection and resolution of conflicts of interest, corruption and fraud and the avoidance of double funding for measures implemented both by the Ministry itself and by implementing agencies under its responsibility. Implementing bodies (i.e. both line ministries and implementing agencies) will conduct on-the-spot checks of correct implementation with beneficiaries with sample sizes based on their implementation contracts with the Ministries. The audit reports will be submitted to the Federal Ministry of Finance.

The plan describes the Austrian rules in place to prevent conflict of interest as well as mechanisms to avoid fraud, corruption and double funding. The rules apply to members of the Court of Audit, member of the Federal and Regional Government, Members of Parliament, State Secretaries, and public officials, and to some extent to their spouses. The rules include the obligation of the aforementioned groups of persons to report companies or businesses they own. Businesses owned (in case the ownership or stake is at least 25%) by members of the Federal or Regional Governments or their spouses are in certain cases excluded from public contracts. Public officials or employees of implementing bodies are excluded from participating in tendering, public procurement, and grant processes if they have a direct or indirect financial or non-financial interest or another personal interest. Furthermore, the plan gives the legal basis, which mandates public bodies to exclude entrepreneurs or businesses from these processes under certain conditions. There are also rules on the avoidance of conflicts of interest regarding parallel gainful employment. In addition, Austria will use a number of registers (transparency database, database of beneficial owners, list of fictitious businesses) to avoid fraud, corruption and double funding. During desk reviews, Ministries will verify the absence of serious irregularities. Moreover, implementing bodies will conduct on-the-spot checks to this effect. Further checks are conducted by the Accounting Agency.

Adequacy of control systems and other relevant arrangements

The plan describes mechanisms to ensure the traceability of the audit and control system. The internal relationship between the Ministries and the implementing bodies is formally established by means of implementation contracts. Record keeping of funding and beneficiaries' data, and the protection of whistleblowers are all described in the plan. The plan explains how data on funding will be stored in the transparency database, where RRF-based

funding will have to be marked as such. Data on final beneficiaries will have to include all information required by Article 22 of the RRF Regulation. Moreover, the plan states the obligations for implementing bodies to comply with the requirements on record keeping as stipulated by Article 132 of the Financial Regulation. The plan points out the access rights of EU bodies to the data of final beneficiaries. Subcomponent 3.B mentions that ARACHNE will be used to support checks on double funding and for the risk scoring and prevention of fraud.

There are pro-active arrangements in place to prevent and detect serious irregularities. Sample-based on-the-spot audits are conducted to detect irregularities. For funding above a threshold of EUR 12 000 beneficiaries need to have an independent confirmation by a qualified external body of the correct implementation and accounting. The transparency register, the register of beneficial owners and the list of fictitious companies can be used for checks.

The plan sets out arrangements to correct serious irregularities and how funds are going to be recovered. The plan explains how the administrative sanctions in case of fraud, corruption or conflict of interest and the rights of OLAF and EPPO with regard to investigations on serious irregularities are to be applied in accordance with Regulation (EU, Euratom) 2018/1046. The plan also states that the government will ensure that, in case of serious irregularities, which result in reduction of support from the RRF, the government will take appropriate measures to prevent a financial loss to the Member State and protect the financial interests of the Union. The plan also states that 'Funds that are not used for their intended purpose may be recovered. In this respect, there are relevant legal provisions, such as the BHG 2013 or the Regulation of the Federal Minister of Finance on General Framework Guidelines for the Grant of Funding from Federal Funds (ARR 2014), BGBl II 208/2014[34]. In particular, the provisions provide that funds must be returned if required by the EU institutions (cf § 25 (1) (11) ARR 2014).

Adequacy of arrangements to avoid double EU funding

The plan explains how funding to businesses or individuals has to be documented in the transparency database. To avoid double funding, the transparency database has to be cross-checked before every funding is approved. Funding from the RRF, as well as past funding that was reattributed to the RRF, has to be marked as such in the transparency database. Moreover, implementing bodies have to verify that expenditure was not already funded by other EU sources and have to reject requests for funding in case a double funding would occur. Additionally, sample-based, on-the-spot audits are conducted to detect double funding or other irregularities.

Legal empowerment and administrative capacity of control function

The plan gives clear indication on the legal mandate of implementing bodies. The legal mandate for the Ministries to implement the measures is given by the Federal Ministries Act

[34] RIS - Allgemeine Rahmenrichtlinien für die Gewährung von Förderungen aus Bundesmitteln - Bundesrecht konsolidiert, Fassung vom 28.05.2021 (bka.gv.at).

(*Bundesministeriengesetz* 1986 – (BMG), BGBl 76/1986 i.d.g.F.). Implementing agencies will be mandated by contracts with the Ministries.

The plan provides assurance that the administrative capacity of Austria's audit and control system is sufficient. Since the financial contribution under the RRF only corresponds to 0.2% of government expenditures, Austria considers it most effective to utilise existing structures that are experienced with the management of EU funds and to reorganise accordingly if necessary.

The arrangements proposed by Austria 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. This would warrant a rating of A under the assessment criterion 2.10 of Annex V to the RRF Regulation.

4.11 Coherence

The reforms and investments included in the Austrian plan are mutually reinforcing. The investment and reform measures included in the Austrian plan represent a coherent package. The design of the plan makes it clear that investment and reform measures have been chosen to contribute to the overarching aim of addressing long-lasting structural challenges, challenges that have become more acute during the crisis. Furthermore, the investment and reforms are embedded in a coherent framework to make the Austrian economy fit for the future, particularly as regards the green and digital transition, innovation, competitiveness, and social cohesion. For the large majority of components, a combination of reforms and investments has been chosen, where the reforms provide the framework for the investments and the investments support the objectives of the reforms. This is particularly the case for the subcomponents related to green (1.A, 1.B, 1.C, 1.D) and digital transition (2.A, 2.B, 2.C), research and innovation (3.A), health (4.A), and education (3.C). This applies also to the subcomponents covering retraining and upskilling (3.B), culture and art (4.C), and resilient municipalities (4.B).

For several subcomponents, the combination of reforms and investments has been chosen so that the reform provides the appropriate framework conditions or reduces barriers for the investment to be successful. This is for example the case for subcomponent 1.B on environmentally friendly mobility, where the reform measures included address the environmental and climate sustainability of the transport system, while the individual investments seek to implement and support the objectives of the reform. It is also the case for subcomponent 2.B on digitisation of education, where the provision of digital end devices is part of a medium-term national action programme on digitisation in education. This renders reforms and investments coherent and mutually supportive. Another example in this regard, is subcomponent 2.C on the digitisation of the public administration, where the funding for the development of the 'Once-only' reform is provided by the Digitalisation Fund investment. It also applies to subcomponent 3.A on research, where the reform measure (the Research, technology and innovation strategy 2030 – RTI Strategy 2030) is providing the framework for the investments, which are all aligned with the objectives of the RTI Strategy 2030. Another example is subcomponent 3.B on retraining and upskilling, where the reform 'Education bonus' should reduce barriers for the potential participants, to take part in the training measures, provided for under the investments. Furthermore, also subcomponent 4.A on

health, includes reform and investment measures that are mutually reinforcing. The proposed measures are coherent and likely to mutually reinforce each other as they aim to bring improvements across many parts of the health system interacting with each other. Specifically for primary care, there are one reform and one investment measures, linked to each other, with the investment aiming to implement the objectives of the reform. This applies also to subcomponent 4.B on resilient communities, where the reform of the long-term care system is providing the framework conditions for the pilot project on community nurses.

There is a consistent vision throughout the plan, clearly identifiable from the nature of the reforms and investments. Significant synergies can be found between the different subcomponents related to the green transition (1.A to 1.D, 2.D, 3.D, and 4.B to 4.D). They are all clearly embedded in the wider strategy to contribute to the green transition of the Austrian economy, they are in line with the objectives of Austria's NECP and contribute to meeting the EU's energy and climate targets for 2030 and to achieving the EU target of carbon neutrality by 2050. The measures included in the area of digitalisation (subcomponents 2.A to 2.D) are chosen in a way to address the various challenges Austria faces related to digitalisation, notably high-speed connectivity in all areas, the digitisation of SMEs, the provision of appropriate digital devices in schools and the further digitalisation of the public administration, for the benefit of businesses and citizens. The measures addressing social cohesion and inclusion are chosen in a way to address different challenges over the whole life. They span from early aid for pregnant women in difficult social situations (4.A), to the provision of additional early childhood education and care places (3.C) and of a package of hours to catch up with the deficits accumulated during the COVID-19 pandemic (3.C), to primary health care centres (4.A) and a pilot project for community nurses (4.B), which will provide easy access to health and long-term care services, to improving pension rights, notably for women with low income (4.D). Also in the area of research and innovation there are important synergies, notably between the reform and investment measures included in subcomponent 3.A and the planned IPCEIs included in 3.D.

Some of the additional reform measures ensure that investment measures are embedded in a wider context. While the different components are in itself coherent packages of reforms and investments, there are also complementary effects between the components and particularly between the additional reforms presented in subcomponent 4.D and the other components. The investment measures intended to support the green transition, are accompanied, besides the reforms already included in the component itself, by important reform measures, like the eco-social tax reform and the proposal for climate protection legislation and governance, included in subcomponent 4.D, which provide a bigger framework to support the general economy in the green transition. The proposal for a one-stop shop targeted at the long-term unemployed is complementary to the education bonus and the retraining and upskilling investment measures in component 3.B. The investments included in the area of digital and green transition, are supported by reform measures intended to improve the general business environment, enhancing the framework conditions for start-ups and liberalising some elements of the commercial framework law.

The plan does not present inconsistencies or contradictions between and within the different components. Due care was given to ensure that implementation timelines and reforms and investments were aligned to ensure successful delivery of the measures. No cases

have been observed of areas where the measures proposed, be it reforms or investments, contradict or undermine each other's effectiveness.

In view of the challenges to be addressed, the Austrian recovery and resilience plan presents a balanced approach between reforms and investments. As noted in Section 4.2, the plan aims to address a significant subset of the challenges identified in the country-specific recommendations, making the proposed combination of reforms and investments appropriate. In order to promote wider coherence across instruments, notably with the European cohesion policy funds, a balanced territorial allocation of resources is encouraged.

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

ANNEX: Climate tracking and digital tagging

			Climate[35]		Digital	
Measure/ Sub-Measure ID	**Measure/Sub-Measure Name**	**Budget (EUR m)**	**Int. Field**	**Coeff. %**	**Int. Field**	**Coeff. %**
1.A.2a	Exchange of oil and gas heating systems - biomass	53	030bis	100%		
1.A.2b	Exchange of oil and gas heating systems - district heating	53	034bis0	100%		
1.A.2c	Exchange of oil and gas heating systems - other renewable energy	53	032	100%		
1.A.3	Combating energy poverty	50	025bis	100%		
1.B.3	Zero-emission buses	256	074	100%		
1.B.4	Zero-emission utility vehicles	50	n/a[36]	100%		
1.B.5a	Construction of new railway lines and electrification of regional railways — newly or upgraded TEN-T core network.	536.6	064	100%		
1.B.5b	Construction of new railway lines and electrification of regional railways — other newly or upgraded built railways	6	066bis	100%		
1.C.2	Biodiversity fund	50	050	40%		
1.C.3	Investments in reverse vending systems and measures to increase the reuse quota of beverage containers	110	042	40%		
1.C.4	Retrofitting of existing and construction of new sorting facilities	60	042	40%		
1.C.5	Promotion of the repairing of electrical and electronic equipment (repair bonus)	130	042	40%		
1.D.2	Transforming industry towards climate neutrality	100	024ter	100%		
2.A.2a	Widespread availability of Gigabit capable access networks and creation of new symmetric Gigabit connections – administrative processing	17.1			053	100%
2.A.2b	Widespread availability of Gigabit capable access networks and creation of new symmetric Gigabit connections – accompanying measures	17.1			053	100%
2.A.2c	Widespread availability of Gigabit capable access networks and creation of new symmetric Gigabit connections – broadband	857			053	100%

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

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

			Climate[35]		Digital	
Measure/ Sub-Measure ID	**Measure/Sub-Measure Name**	**Budget (EUR m)**	**Int. Field**	**Coeff. %**	**Int. Field**	**Coeff. %**
2.B.2	Provision of digital end-user devices to pupils	171.7			012	100%
2.C.2	Digitalisation fund public administration	160			011	100%
2.D.1	Digitalisation of SMEs	32			010	100%
2.D.2	Digital investments in enterprises	69			010	100%
2.D.3a	Green investments in enterprises - Thermal renovation of buildings	20	024bis	100%		
2.D.3b	Green investments in enterprises - grid-coupled photovoltaic installations and electricity storage	153	024bis	100%		
2.D.3c	Green investments in enterprises - energy saving in companies	32.5	029	100%		
2.D.3d	Green investments in enterprises - zero-emission mobility — sub measure	294	072bis	100%		
2.D.3e	Green investments in enterprises - other alternative fossil free drives	4	072bis	100%		
2.D.3f	Green investments in enterprises – investment in electronic charging station	0.5	077	100%		
3.A.2	Quantum Austria — Promotion of Quantum Sciences	107			021quater	100%
3.A.3	Austrian Institute of Precision Medicine-Digital Share	13.7			009bis	100%
3.A.4	(Digital) Research Infrastructures	30			021quater	100%
3.B.2a	Promoting reskilling and upskilling - basic qualification	81.25			108	100%
3.B.2b	Promoting reskilling and upskilling - IT/care/environment	112.5			108	100%
3.B.2d	Promoting reskilling and upskilling - youth coaching	19.8			099	40%
3.D.1	IPCEI Microelectronics and Connectivity	125	055bis	40%	009bis	100%
3.D.2	IPCEI Hydrogen	125	022	100%		
4.A.3	Development of the electronic mother child pass platform including the interfaces to the early aid networks	10			095	100%
4.B.3a	Investment in climate-friendly town centres - building refurbishment of companies	17.5	024ter	100%		
4.B.3b	Investment in climate-friendly town centres- connection to high-efficiency district heating	17.5	030bis	100%		
4.B.3c	Investment in climate-friendly town centres –- green façades projects	5	037	100%		
4.B.3d	Investment in climate-friendly town centres - brownfield land projects	10	046bis	40%		
4.C.3	Renovation of *Volkskundemuseum* Wien and Prater Ateliers – energy efficiency measures	13.9	026	40%		
4.C.4	Digitalisation wave cultural heritage	16.5			021bis	100%
4.C.5	Investment fund for climate-friendly cultural businesses	15	024	40%		

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