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2024 Country Report - Austria

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Recommendation for a COUNCIL RECOMMENDATION

on the economic, social, employment, structural and budgetary policies of Austria

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European Commission

Austria

2024 Country Report

#EURO at 25



ECONOMIC AND EMPLOYMENT SNAPSHOT

Austria's economy is set to recover only gradually

Austria's economy contracted by 0.8% in 2023 and it is set to recover only gradually ([1]). The main drivers of the contraction were weak consumer spending, a low level of investment and weak external demand. The comparatively high inflation eroded the purchasing power of households and reduced spending appetite, while monetary tightening and the uncertain outlook had a negative impact on investment. Economic recovery is projected to be gradual, with growth increasing to 0.3% in 2024 and picking up to 1.6% in 2025. Consumer spending is expected to be the main driver of growth, underpinned by stable levels of employment and strong real wage growth due to the collective wage agreements concluded at the end of 2023. Investment is projected to remain a drag on growth in 2024 due to a struggling construction sector and high interest rates.

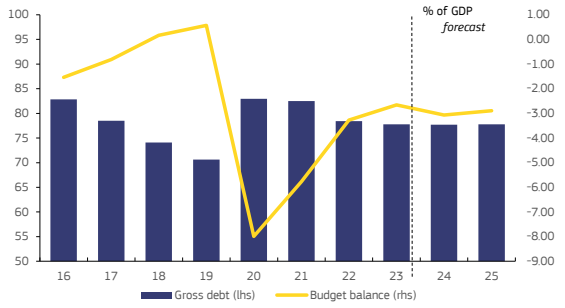
Inflation was among the highest in the EU in 2023 but it is now set to decline. It is expected to decrease from 7.7% in 2023 to 3.6% in 2024 and 2.8% in 2025. Services superseded energy prices as the main driver of inflation in 2023 and are set to remain the main driver in the coming years. The strong contribution of services to overall inflation can be explained by the robust growth in wages, which impacted labour-intensive sectors, and by the high weighting attributed to services in the inflation index (third highest weighting in the EU) ([2]).

([1]) The cut-off date for the data used to prepare the 27 Country Reports was 15 May 2024.

([2]) Eurostat prc_hicp_inw.

In 2023, rising interest rates led to a substantial decrease in activity in the construction sector. The housing market cooled down after a period of strong price increases. New housing loans fell by 62% from the second quarter in 2022 to the second quarter in 2023 ([3]) (see Annex 18). Investment activity in the construction sector continued to decline. To address this, in February 2024 the Austrian government announced a three-year construction support package of EUR 1 billion (0.2% of GDP) for the renovation, maintenance and construction of residential buildings. As part of the package a reform to allow federal states (Länder) to introduce taxes on vacant dwellings was adopted.

Graph 1.1: **General government budget balance and gross debt**



Source: European Commission Spring Forecast 2024

Fiscal support measures taken in response to the COVID-19 pandemic and the energy crisis were gradually phased out, but deficits declined only slowly. In 2023, the deficit decreased to 2.7%, from 3.3% in 2022. An increase in the budget deficit to 3.1% of GDP is expected in 2024, before it is set to decrease again in 2025. This is a result of new policy measures, including additional expenditure on defence, climate action, long-term care and healthcare.

([3]) OeNB (2023) – Economic Outlook for Austria.

Revenue growth is set to be weaker than in the past following the introduction of the eco-social tax reform and the abolishment of the tax bracket creep. After a sharp rise in the public debt-to-GDP ratio, by 12.4 pps in the context of the COVID-19 pandemic, the debt burden is gradually decreasing due to strong nominal GDP growth. Government debt fell from 83% debt-to-GDP ratio in 2020 to a projected 77.7% in 2024. However, pre-pandemic debt ratio levels are unlikely to be reached in the foreseeable future**.**

Demographic ageing and its related costs pose a substantial challenge for public finances. As the old-age dependency ratio ([4]) is projected to increase from 29.8% in 2023 to 46.4% in 2050, ageing-related costs are projected to increase from 27.7% of GDP in 2022 to 29.5% in 2050 ([5]). These trends will pose a burden on public finances, despite potential migration and rises in the employment rates of women and older workers. This is particularly the case for the pension, healthcare and long-term care systems, which will require further adjustments to ensure efficiency, adequacy and sustainability in the long run.

The labour market proved resilient in the face of the economic slowdown in 2023. The employment rate improved steadily throughout 2023 and stood at 77.3% in Q4-2023. Unemployment increased slightly, but the negative impact of the overall weak economic performance can still be considered moderate. The employment rate is expected to develop positively in 2024, due to the increase in the number of women and older people who are working. The unemployment rate is expected to stabilise at around 5.3% in 2024 and may start to fall again in 2025.

Austria's green budgeting instruments, such as climate-related spending reviews and the promotion of green finance, are considered a best practice in the EU ([6]). The strategic approach to integrating climate and environmental considerations into the budgeting process steers the path towards an increased impact orientation. Austria is also piloting the development of impact indicators for its green budgeting approach.

In 2023, Austria's financial sector remained robust in spite of a major insolvency in the real estate sector and persistent exposure to Russia. Despite weak economic growth and high inflation, the non-performing loan ratio declined slightly. The profitability of the banking sector was strong due to higher interest rates. Issues that merit closer attention include the continued exposure to Russia, where Austria's second largest bank remains active. The insolvency of Signa, Austria's largest privately-owned real estate company, illustrates the risks in the commercial real-estate segment amid headwinds in both borrowers' credit ratings and property valuations (Annex 18).

Slow diversification away from Russian gas hinders the green transition and energy security

Despite some diversification, Austria is still dependent on Russian gas. Imports from Russia dominated the gas supply in 2023, in particular during the heating season. To expand transport capacity from neighbouring countries such as Germany the government announced targeted investments to upgrade the gas pipeline infrastructure. Without a clear strategy to diversify away from Russian gas, Austria's energy security remains vulnerable. This is particularly the case considering that the share of natural gas in the energy mix is 21% ([7]). Installed capacity for renewable energy increased by 6% in 2022 (by 10% in the EU), also benefiting from

([4]) Population 65 years or over to population 15 to 64 years.

([5]) European Commission (2024) – 2024 Ageing Report.

([6]) European Commission (2023), Green Budgeting in the EU.

([7]) Eurostat (2022), Simplified Energy Balances.

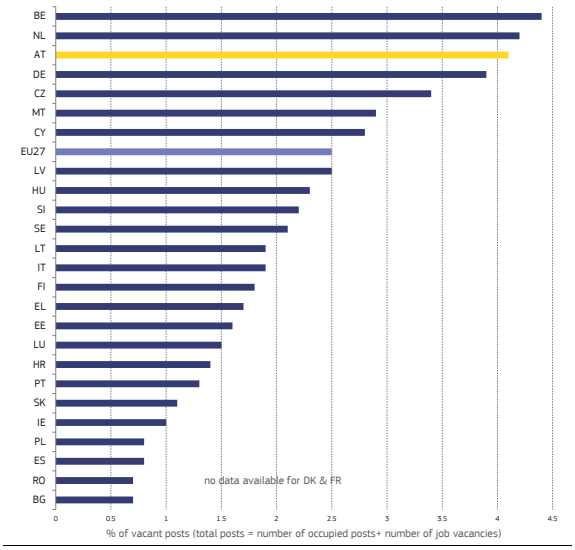
measures under Austria's recovery and resilience plan.

Austria has the ambitious objective of becoming climate neutral by 2040. Measures to reduce emissions are starting to show results but are not yet sufficient to meet the 2030 climate and energy targets. Greenhouse gas emissions outside the EU Emissions Trading System declined by 5.0% in 2022 compared to 2021. Current policies (adopted at the end of 2021) leave a gap of 21 pps to Austria's effort sharing target of 48 % by 2030 compared to 2005 levels (see Annex 6). Since then, some additional measures have been taken and others are under discussion as part the update of its national energy and climate plan (NECP). Austria still needs to submit its updated NECP due in June 2024, setting out how it will close this gap.

The availability of skilled labour and growth financing is critical for improving productivity and competitiveness

The short-term fall in cost competitiveness is expected to subside. Nominal unit labour costs increased by 9.7% in 2023 and are expected to rise further in 2024 as strong nominal wage growth compensates workers for high inflation. This rise is above the euro area average and contributed to a short-term loss in cost competitiveness. However, real exports kept rising (+0.3%) in 2023 and Austria preserved its export market share in spite of weak demand in its main export markets ([8]). This indicates that companies were able to absorb increasing unit labour costs by reducing profit margins as they had previously benefitted from price hikes ([9]). The strongly recovering tourism sector seems to be withstanding the rising cost pressures relatively well, due to low price sensitivity. As inflation falls and growth picks up gradually, overall cost competitiveness is set to recover.

Graph 1.2: **Vacancy rate in EU Member States Q4-2023**



(1) Vacancies in industry construction and services (except activities of households as employers and extraterritorial organisations and bodies
Source: Eurostat

Labour and skills shortages are among the highest in the EU and are impacting growth, investment and innovation. The job vacancy rate is still one of the highest in the EU (see Graph 1.2.), which is mainly caused by demographic changes, restructuring of industries, increasing demand for new skills in light of the green and digital transitions and the current skills mismatch. The gap between vacancies and labour supply is also driven by regional mismatches. Tapping into the unused labour market potential, in particular through upskilling and reskilling, can help to address labour shortages and to reach the 2030 targets on employment and skills (Annex 8).

The low level of business dynamism and limited access to risk capital are hindering innovation and productivity gains. In 2022, Austria's research and development intensity was the third highest in the EU (3.2% of GDP). However, the high level of public and private investment in research and innovation does not fully translate into higher innovation outputs, owing to the low

([8]) FIW (2024) – FIW Jahresgutachten Die österreichische Außenwirtschaft 2024.

([9]) WiFO (2023) – WIFO KONJUNKTURPROGNOSE 04/2023.

level of business creation and the lack of risk capital needed by fast-growing enterprises when scaling up.

While Austria performs well on almost all indicators, the Social Scoreboard underpinning the European Pillar of Social Rights points to challenges in early childhood education and care (ECEC). Fewer than one in four of children under 3 years of age are enrolled in ECEC. The insufficient provision of quality ECEC facilities forms a major barrier for women, in particular mothers of young children, to work full-time, with their labour market potential remaining underused. While significant investments are envisaged to increase the availability of ECEC, their impact remains to be seen (see Annex 14 and Chapter 3).

Box 1: **Austria's competitiveness in brief**

Austria's competitiveness deteriorated slightly in 2023, owing to rising unit labour costs. On the other hand, in the last 5 years it benefited from a high level of public and private investment (business investment was 15.7% of GDP in 2022, 2 pps above the EU average). As a strong innovator, Austria makes significant investments in research and development (3.2% of GDP in 2022) and performs well in the areas of digitalisation, green technology, quality of infrastructure and integration in global supply chains. The Austrian recovery and resilience plan and EU cohesion policy programmes are expected to further foster long-term competitiveness by investing in energy and industrial transformation, strategic innovations and in people, as well as in actions to improve the business environment.

However, competitiveness challenges remain:

- **skills shortages and skills mismatches are barriers** to business activity, becoming a key challenge also due to the ageing of population and the educational outcomes of people from a disadvantaged background;
- **the low level of business dynamism and limited access to risk capital** impair the effectiveness of Austria's innovation system and hinder growth of young innovative enterprises.

Box 2: **UN Sustainable Development Goals (SDGs)**

Austria performs well or very well in all the SDGs related to competitiveness and productivity (SDG 4, 8, 9). Austria's high score on quality education (SDG 4) is due to its relatively good performance in digital skills. Sustainable economic growth and employment indicators (SDG 8) are above the EU average, in particular because Austria's labour market is characterised by low unemployment and relatively high wages, and the employment rate is above the EU average. Austria's score on SDG 9 related to innovation, industry and sustainable infrastructure is well above the EU average, in particular because of its spending on R&D, which is among the highest in the EU (Annex 1).

Of the 17 indicators, those related to 4 SDGs remain below the EU average. These relate to fairness (SDG 10), some aspects of energy and environmental sustainability (SDG 2, 7) and partnership for the goals (SDG 17).

IMPLEMENTATION OF KEY REFORMS AND INVESTMENTS USING EU INSTRUMENTS

Funding from the Recovery and Resilience Facility (RRF) and cohesion policy funding is mutually reinforcing Austria's efforts to boost its competitiveness and foster sustainable growth. Under Austria's recovery and resilience plan (RRP), following the first payment request, the Commission has disbursed EUR 1.19 billion, representing around 30% of Austria's allocation. During the 2014-2020 programming period of the cohesion policy funds, EUR 1.3 billion was available to Austria (see Annex 4), with EUR 1.12 billion paid out, while the current 2021-2027 financial envelope amounts to over EUR 1.1 billion.

Under its recovery and resilience plan (RRP), Austria has implemented significant policy measures that are expected to improve its competitiveness. In particular, the RRP includes major reforms such as the eco-social tax reform and reforms reducing the burden for small businesses, updating the pension system as well as investments in the areas of research, digitalisation, the circular economy and renewable energy sources. Austria has also made substantial investments in sustainable mobility, the decarbonisation of industry and heating systems, healthcare and education.

The implementation of Austria's recovery and resilience plan is underway, however timely completion requires increased efforts. Austria has submitted one payment request, corresponding to 44 milestones and targets in the plan and resulting in an overall disbursement of EUR 700 million on 20 April 2023. Emerging delays in the implementation of the RRP measures could put in jeopardy the timely and effective implementation of the plan. Looking ahead at the second payment request, a number of reforms still have to be adopted.

Cohesion policy funding helps tackle Austria's growth and competitiveness challenges and reduce the country's territorial and social disparities. During the 2014-2020 cohesion programming period, support focused on research and innovation, energy efficiency, renewable energy, education, and skills. In the current 2021-2027 programming period, cohesion policy will further support Austria's competitiveness, its green transition and social cohesion, and the improvement of living and working conditions.

Accelerating the green transition

The adoption of the eco-social tax reform under the RRP constitutes an important step in reducing greenhouse gas emissions and a welcome shift in the tax mix. This reform, adopted in February 2022, aims to combat climate change by contributing to the reduction of greenhouse gas emissions to net zero by 2040. For this purpose, the reform introduced a national CO_2 price which should incentivise more climate-friendly consumption. It also helps to diversify the tax base and to shift the tax burden away from labour-related taxation to more growth-friendly and inclusive taxes. To cushion the financial burden of carbon taxation on households, a regional climate bonus is paid out to all residents once per year. Tax relief for people and businesses comprising, for example, a lower income tax rate and a higher 'Family Bonus Plus', helps strengthen social inclusion.

Austria introduced reforms to speed up the deployment of renewable energy. The Renewable Energy Expansion Law adopted in 2021 lays down new framework conditions for supporting electricity generation from renewable sources. Together with the revision

of the Environmental Impact Assessment Act, this is an important step in meeting the country's target of 100% renewable electricity by 2030. The Renewable Heating Law, adopted in 2023, focuses on reducing the use of fossil sources for heating purposes. RRF funding is also used to replace oil and gas heating systems, and for solar rooftop photovoltaic installations, as well as storage systems. The RRP also supports Austria's participation in Important Projects of Common European Interest in the field of hydrogen with five projects.

Cohesion policy and the RRP finance complementary energy efficiency measures to help Austria achieve its ambitious objective of climate neutrality by 2040. The Austrian European Regional Development Fund (ERDF) and Just Transition Fund (JTF) support businesses and municipalities in improving their energy efficiency. At the same time, the RRP finances major projects in large business and installations covered by the EU Emissions Trading System, for example to switch to renewable energy sources. Cohesion policy funding for energy efficiency measures in businesses and municipal infrastructures is estimated to reduce greenhouse gas emissions by nearly 270 000 tonnes of CO^2 equivalent/year.

Austria is taking important steps towards sustainable mobility through reforms and investments in railways and emission-free buses and utility vehicles. As part of its RRP, Austria has announced the Mobility Masterplan 2030 and introduced the 'climate ticket', a flat-rate season ticket that encourages people to use public transport. Financing from the Connecting Europe Facility is complemented by funds from the RRF to complete part of the Koralmbahn railway line, including the electrification of some feeder lines. Moreover, 579 zero-emission buses and 167 commercial vehicles, as well as charging infrastructure, are to be financed through the RRF to help accelerate the decarbonisation of road transport, which is the sector most difficult to abate, and accounting for 28% of Austria's total greenhouse gas emissions.

Unlocking funds for the digital transition, research and innovation

Austria is using funding from the RRP and cohesion policy to further strengthen research and the economic exploitation of research in high-tech sectors. RRF funding is dedicated to research infrastructures and research collaborations in the area of quantum sciences and the establishment of an Austrian centre of precision medicine. In addition, ERDF and JTF funds are being used to support research and innovation projects, and for equipment and incubation centres that, among other things, enable a transition to low- and zero-emission technologies. To help foster Austria's long-term competitiveness, the RRP is supporting five major projects, as part of Important Projects of Common European Interest, to develop highly innovative products in the fields of semiconductors, advanced processors, power electronics and sensors.

With the reforms in the RRP, Austria is addressing challenges related to connectivity to improve competitiveness and social cohesion. The reforms advance the digital transformation in a variety of areas, including connectivity, public administration and education. For example, the amendment of the Business Service Portal Act has reduced bureaucracy for businesses and the public. In addition, the government successfully began to implement projects to support digital infrastructure through the digitalisation fund for public administration and the roll-out of gigabyte-capable networks. With the support to at least 7 000 companies, RRP-funded investments aim to counter the weak uptake of digital technologies and digital business models among smaller companies.

Investing in people for growth, fairness and social inclusion

With a combination of reforms and investments, Austria aims to improve the

Box 3:

Combined action for greater impact of EU funds

To boost economic growth and maximise the impact of EU funding, Austria's RRP includes reforms that support investments under other EU instruments, creating significant synergies and complementarities between the various funds. For example, a reform implemented as part of the RRP which aims to facilitate the early stages of start-ups, including by introducing a new legal form for start-ups and by examining further tax incentives, is complemented by ERDF support for start-up services in the regions such as coaching for knowledge-intensive start-ups and the provision of facilities to incubate new companies.

skills of unemployed and low-skilled people to help alleviate growing labour shortages. The reform introducing the education bonus scheme improves the framework conditions for unemployed people to participate in training measures. With RRF funds, it is envisaged that at least 94 000 people will benefit from re-skilling and up-skilling measures in Austria. To help tackle labour shortages in the area of the green transition, the JTF complements the RRP measures by supporting the development of green skills. This includes an eco-tech academy; training on environmental sustainability, photovoltaic technology, and e-mobility; targeted career guidance and support for employers on green skills. In the field of social inclusion, funding of EUR 114 million from the European Social Fund Plus will help support active labour market integration and promote active inclusion, including of persons with disabilities. Closing gaps in skills and labour shortages will help to increase Austria's competitiveness.

Mutually reinforcing support from RRF and cohesion funds is improving educational outcomes. Austria's RRP contains significant reforms and investments to increase the number of places in early childhood education and improve access to education, including by setting criteria to define the socio-economic baseline of schools to guide the allocation of human resources. These targeted reforms and investments are complemented by support from the European Social Fund Plus, aiming at improving educational outcomes to prevent early school leaving, in particular of disadvantaged students. Under the RRP, around 160 000 digital devices have been provided to pupils in the lower secondary level to ensure access to digital education under fair and appropriate conditions, without their socio-economic background interfering. Improving educational outcomes supports Austria's competitiveness.

A series of measures in the RRP address the challenges faced by the health system. Complementing reforms to strengthen primary health care and prevention, the RRP finances the increased provision of primary healthcare units, with the aim of shifting the weight from hospital care. This also includes investments to step up the digitalisation of the health sector and to increase social fairness by widening access and digitalising the parent-child pass also by improving 'early aid' for socially disadvantaged pregnant women.

Spending reviews are an essential way of identifying potential savings in public finances, thereby making the public administration more efficient and effective. The reform of the spending review process, as included in the RRP and which has been ongoing since 2021, consists of five modules that build on each other and focus on 'green transformation' and 'digital transformation'. Spending reviews help assess public expenditure in different areas, in terms of whether they are achieving the desired results, where useful starting points for cuts and savings may be found, and where expenditure could or should be restructured to better exploit the results of synergies. The resulting proposals may be included in the budget process.

FURTHER PRIORITIES AHEAD

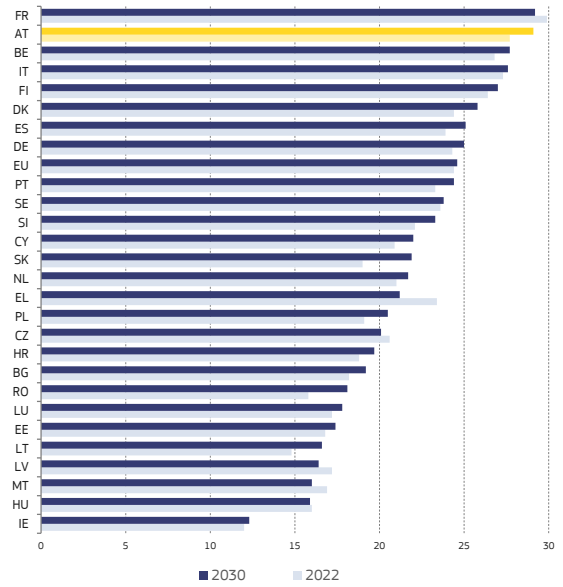
Austria faces challenges related to the sustainability and efficiency of public finances, fair and growth-enhancing taxes, diversification of energy imports, business dynamism, and labour and skills shortages. Tackling these challenges will help increase Austria's long-term competitiveness and ensure that its economy remains resilient. It will also help make further progress in achieving the UN Sustainable Development Goals.

It is important that the challenges identified are addressed both at national and regional level to reduce regional disparities.

The sustainability of public finances remains a priority

Rising spending needs will increase fiscal pressure over time. Public finances will continue to be affected by the ageing of the population. It is currently estimated that by 2030 Austria will have the second highest age-related costs at 29.1% of GDP in the EU (see Graph 3.1) ([10]). The ageing population will increase fiscal pressures related to pensions, healthcare and long-term care. This calls for further measures to ensure the long-term sustainability of the pension system, the efficiency of healthcare and the sustainability and access to of long-term care, both at federal and regional government level (see below). Such measures are needed to contain Austria's public debt ratio, which have been heavily affected by the COVID-19 pandemic and Russia's war of aggression against Ukraine.

Graph 3.1: **Total age-related expenditure – baseline projections for 2030 as percentage of GDP**



Source: European Commission 2024 Ageing Report

The complex system of intergovernmental transfers between federal and sub-national levels presents a challenge to ensuring efficient public spending. Almost one third of all tax revenues are transferred from the federal government to different sub-national levels, using a variety of allocation mechanisms ([11]). Länder and municipalities perform many vital public tasks, such as healthcare, childcare or investment in public transport, but they have limited tax autonomy and depend on a complex transfer system. Many of these services are expected to experience increasing cost pressures as a result of demographic changes and the investments needed for the green transition. The financial equalisation scheme (Austria's

([10]) The 2024 Ageing Report: Economic and Budgetary Projections for the EU Member States presents projections showing total age-related expenditure in 2030.

([11]) Mitterer & Pichler (2023).

multiannual fiscal framework) for 2024-2028, concluded in November 2023, allocated additional spending in key areas. In particular, the 'Fund for the future', which is linked to quantitative and qualitative targets, provides additional funding for childcare, long-term care housing and renovation as well as environmental and climate protection measures. However, ensuring compliance with the adopted targets is only foreseen through soft policy monitoring instruments. In its national recovery and resilience plan (RRP), Austria committed to carrying out a series of spending reviews. Follow up on the recommendations from these reviews will help to minimise inefficient or climate-unfriendly public spending. Further steps, such as a reform of the property tax system, could strengthen regional tax autonomy and reinforce the overall tax system.

The tax system continues to rely heavily on labour income and consumption, with property and environmental taxes playing a secondary role in the tax mix. Despite multiple tax reforms, Austria remains a high-tax country, with a tax-to-GDP ratio significantly above EU average (see Annex 19). Since 2023, personal income tax brackets have been indexed to inflation ([12]) (see Box 4), preventing a further increase in the tax wedge through bracket creep ([13]). Still, the tax wedge in Austria remains among the highest in the EU ([14]), hindering job creation and participation in the job market. By contrast, recurrent taxes on property are among the lowest in the EU, and the VAT gap also ranks comparatively high ([15]). The recently announced reform to combat legal hurdles for states (Länder) to introduce taxes on vacant dwellings could help address the tax gaps. In addition, significant subsidies, for example for transport, which have detrimental environmental impacts, are impeding the progress of the green transition. At the same time, the recent eco-social tax reform provided relief measures in the area of taxes and social security, as well as introducing CO_2 pricing in the transport and heating sectors, which improves the tax mix.

Long-term care needs are increasing and putting pressure on fiscal sustainability, while staff shortages in the sector are significant. In 2022-2023, Austria passed a reform package addressing the most urgent challenges to ensuring adequate access to long-term care. Recent measures, for instance investing in long-term care staff, supporting informal carers, and piloting community nurses (under the RRP), will lead to an increase of the „Pflegefonds" ([16]) from EUR 455.6 million to EUR 1.1 billion with annual valorisation ([17]). There may still be further major structural challenges to improving the legal and governance framework, which is still marked by a division of responsibilities and competencies between the federal state and subnational levels. Additional fiscal pressure is due to the abolition of the 'Pflegeregress' ([18]), as the recourse to the assets of people living

([12]) As of 2023, the tax brackets of the personal income tax (except for incomes over EUR 1 million) are annually indexed by two thirds of inflation, whereas the remaining third is subject to discretionary relief measures (further reduction on income taxes, support for people who use public transport, etc) adopted by the government each year.

([13]) Bracket creep happens when inflation pushes earners into higher tax brackets, increasing their effective tax burden. Tax brackets, adjusted for inflation, may lag behind rising incomes, resulting in individuals paying a larger proportion of their earnings in taxes. This widening tax wedge can erode the real value of income over time.

([14]) The tax wedge is the ratio of personal income tax and employer and employee social security contributions, minus family benefits, divided by total labour costs. In 2022, the tax wedge of a single person earning average wage was 46.8%, compared to an EU average of 39.7%. See the EU tax and benefits indicator database (https://europa.eu/economy_finance/db_indicators/tab). Austria has the third highest tax wedge in the OECD (OECD 2024, Taxing Wages 2024).

([15]) European Commission, CASE, Poniatowski, G., Bonch-Osmolovskiy, M., Śmietanka, A., Pechcińska, A., VAT gap in the EU – Report 2022, Publications Office of the European Union, Luxembourg, 2022.

([16]) The care fund is a financing instrument to ensure that adequate long-term care services can be funded in light of an ageing population. The federal level finances 2/3 of its budget while regions and municipalities finance 1/3.

([17]) Budgetdienst (2023) – Finanzausgleich 2024. Analyse.

([18]) Pflegeregress refers to the claim made by the Social Welfare Departments of the Austrian federal states on the private assets of a person receiving long-term care (Pflege-Eigenregress) and the assets of their relatives (Pflegeregress).

in residential long-term care is now prohibited. This provides a financial incentive to use the relatively more expensive residential care instead of home care.

Despite recent reforms, concerns remain about the sustainability of public healthcare spending. Health care spending, in particular on hospitals, is among the highest in the EU. Public funding of healthcare is projected to increase from 7.8% of GDP in 2022 to 8.8% GDP in 2050 ([19]), ([20]). By contrast, outpatient primary healthcare remains underdeveloped, with patients directly seeking care at hospitals, which is the costliest care provider. The fragmentation in governance and financing persists and adds to the inefficiency of the healthcare system. At the same time, the recent healthcare reform, and investments under the RRP will help to further strengthen primary healthcare, in particular by supporting new and existing primary healthcare units across the country. Moreover, the reform is expected to help to pursue structural reforms in the hospital sector, to improve medicine supply, vaccination programmes and health promotion and prevention.

With a projected decline in the working-age population, government spending on pensions is set to increase further. Pension expenditure is expected to increase from 13.7% of GDP in 2022 to 15% of GDP in 2030, and to stabilise at 14% of GDP in the long-term. While the statutory pension rights are considered adequate overall, offering a relatively high degree of income maintenance, challenges of income inequality in old age persist. In particular, given the very high share of women working part-time, the gender pension gap stood at 34.4% in 2022, well above the EU average of 26% (see Annex 14). The overall effective retirement age remains considerably below the pensionable age, given various early retirement schemes. As of 2024, the statutory retirement age for women is gradually being aligned with that for men, increasing to 65 years in 2033. However, despite increasing life expectancy, there is no link between the statutory retirement age and gains in life expectancy. While the RRP includes measures to tackle these increasing costs, such as pension splitting, further efforts should be made to ease the strain on government spending arising from the ageing population. This involves supporting and incentivising women with care responsibilities, older workers and other groups with low labour market attainment to increase their working hours, as well as encouraging parents to split pensions.

Promoting risk capital to boost productivity and competitiveness

Austria would benefit from greater business dynamism to boost the efficient allocation of resources and productivity growth. The rates of creation and closing down of companies are among the lowest in the EU. The proportion of start-ups and young companies, which tend to achieve higher annual productivity gains than older firms ([21]), has steadily decreased (3.8% in 2020) and the share of fast-growing companies was below the EU average (7.29% according to the number of employees vs 12.4% for the EU, in 2021). The start-up package included in the RRP, particularly the new 'Flexible Kapitalgesellschaft' corporate form, aims to facilitate the creation and scaling up of technology start-ups through greater flexibility in allocating shares and in shareholding relationships. Early evidence indicates significant take-up of the new possibilities. Furthermore, targeted changes in the insolvency framework to enable the timely exit of non-viable companies with low productivity could also support business dynamism. The easing of business regulations that currently restrict access to certain services and

([19]) European Commission (2024), 2024 Ageing Report.

([20]) These projection results do not incorporate recent reforms of the financial equalization scheme 2024-2028.

([21]) Peneder, M. (2021), "Entwicklung der Produktivität österreichischer Unternehmen von 2008 bis 2018. Auswertung von Mikrodaten für Österreich im Rahmen von Multiprod 2.0", WIFO.

professions could also unlock further productivity gains and greater competition, including in the retail sector (see Annex 12).

Better access to risk capital could help translate investments in research and innovation into higher business growth and productivity. While Austria has a favourable innovation framework and high levels of R&D expenditure (3.2% of GDP) compared to other countries, a shortage of risk capital hinders growth of innovative start-ups and SMEs. In spite of some improvement in recent years, private equity (0.14%) and venture capital (0.041%) financing as a share of GDP in 2022 was still underdeveloped by international standards, compared to the EU average of 0.42% and 0.09% respectively (see Annex 12). To improve financing for technology start-ups with high potential to scale up, in 2023 the Austrian promotional bank AWS launched a new venture capital fund of EUR 72 million ([22]) and a new 'Startup Invest' initiative (see Annex 11). There is still room to improve later-stage funding, including the conditions for institutional investors to invest in venture capital.

Investing in people to address labour and skills shortages

Skills shortages and skills mismatches are hampering competitiveness. Widespread labour shortages and mismatches are among Austria's most pressing issues and the ageing of the population is set to further exacerbate the situation. Austria's job vacancy rate remains one of the highest in the EU and has remained over 4% since the end of 2021. Labour shortages are particularly prevalent in the service and construction sector, but also in the IT, tourism, healthcare, and long-term care sectors. On the regional level, Vorarlberg, Salzburg and Upper Austria are particularly affected, as the number of job seekers per vacancy is below 1.5, whereas in Vienna it is close to 6. As a result, entrepreneurs in Austria report that innovation is hampered, and revenues are declining (Annexes 10 and 14). The full-time employment rate of women is below the EU average, although an upward trend can be observed. With fewer digital skills, and often facing discriminatory practices because of their age, it is difficult for workers over 55 to find work. People with a low level of skills are particularly vulnerable and represent the highest share of the unemployed. Similarly, people with a migrant background and people with a disadvantaged socio-economic background face particular barriers to employment, including because of challenges to transition from school to work. To meet its labour market needs, Austria is investing into up- and reskilling (including literacy and language training) of persons entitled to asylum and subsidiary protection. However, refugees, a particularly vulnerable group, encounter hurdles finding housing in regions with labour shortages where their labour market integration would be easier. At the same time, skills shortages are increasing in key sectors for the green transition (Annex 8).

Improving the availability and quality of early childhood education and care services (ECEC) could enable parents, notably women, to work more hours. The rate of participation in ECEC in Austria, is below the EU average (34.9%) and the national Barcelona target (31.9%) for children under the age of 3. In 2023, only 24.1% of children under the age of 3 received formal childcare (see Annex 14). The insufficient provision of quality ECEC facilities, together with strong regional differences, plays a key role in the high proportion of women in part-time employment, which is one of the highest in the EU. The double burden of paid work and care obligations affects women significantly more than men ([23]). There are staff shortages in ECEC, and the continuous expansion of supply, combined with policy action to increase quality, means that at least 20 200 more staff will be needed by 2030 (see Annex 15). The government is taking measures to improve the availability and quality of ECEC, including

([22]) AWS Gründungsfonds II.

([23]) Statistik Austria (2023) – Zeitverwendung 2021/22.

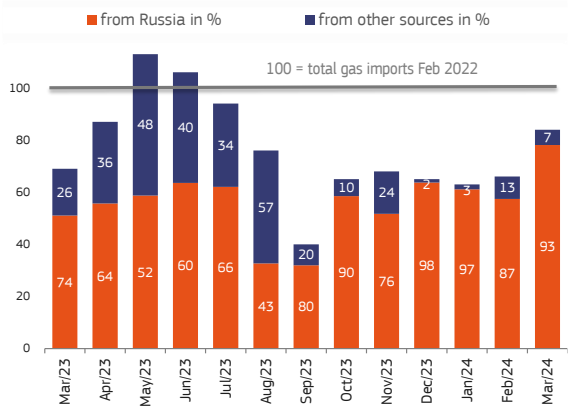
through its RRP and additional national funding, as well as by improving the attractiveness of the teaching profession ([24]), but challenges remain. While support from the recently established 'Zukunftsfonds' (EUR 527 million per year on average) is linked to quantitative and qualitative targets, including for childcare, introducing compulsory quality standards in ECEC could better ensure the provision of quality care across the country.

There is scope to improve basic skills, in particular of pupils and young people from a disadvantaged and migrant background. Education outcomes in Austria are around or slightly above the EU average. For instance, the share of Austrian pupils reaching the highest levels in mathematics, reading and science is above the EU average in all three fields. However, according to the 2022 results of the Programme for International Student Assessment (PISA), the proportion of low-achieving pupils in mathematics and reading has continuously increased since 2012 (Annex 15). Underachievement has increased, in particular, among pupils from disadvantaged and migrant backgrounds. Around one in four 15-year-olds does not acquire minimum skills. Furthermore, young people (18-24 years old) born outside the EU are nearly twice more likely to leave school early, which severely affects their prospects on the job market and social integration (see Annex 14). Preventing young people from leaving education and training early is key to reducing various risks in their future, including unemployment, economic inactivity and employment in low-paid jobs with few or no prospects for training and career progression. Moreover, the increase in underperformance in basic skills and the higher proportion of early school leavers in some groups may pose risks to successfully addressing skills shortages in the long run, therefore hampering the country's competitiveness and capacity to innovate. The RRP contains measures to improve skills supply and the educational outcomes of disadvantaged pupils (Section 2). Additional measures, however, may also help, including: (i) improving the provision of quality ECEC; (ii) targeted support to schools with specific needs; (iii) ensuring sufficient and well-trained staff in education; and (iv) more investment in education. Such measures could also help, in particular, to cope with the challenges of increased diversity, for instance through German language support, and to provide tailored adult education measures.

([24]) European Commission (2023) European Semester – Austria Country Report.

Stepping up the green transition and diversification to improve energy security

Graph 3.2: **Gas imports are gradually declining, but Russia is still the dominant supply source**



Source: AT Climate Ministry, Energy Portal, May 2024

Greater efforts are needed to reduce Austria's dependence on Russian gas. The security of Austria's energy supply has improved thanks to increased gas imports from Norway and, to a lesser extent, from North Africa and Central Asia, via transport capacities in Germany and Italy, including liquified natural gas, as well as the strategic gas reserve created in 2022. However, the monthly share of gas imports from Russia remained significant throughout 2023 (see Graph 3.2). A decoupling from the long-term supply contract between the Austrian energy company OMV and Russia's Gazprom would facilitate further efforts to diversify energy sources. To this end, the Climate Ministry made a proposal aiming at terminating the contract and imposing a legal obligation on domestic gas suppliers to gradually phase out

Russian gas. The government also intends to provide investment support (EUR 70 million) to upgrade the West Austria gas pipeline, which would increase the transport capacity from Germany by 30% and also enable hydrogen transport in the future. In 2022, Austria's natural gas consumption went down to 7.9 billion cubic meters (12.2% less than in 2021) ([25]), accounting for 21.8% ([26]) of gross energy consumption, which is close to the EU average (2022).

The expansion of renewables has accelerated, but the target of climate neutrality by 2040 is demanding and more speed and investments are required for wind energy, grid upgrade and expansion. The installed renewable energy capacity increased by 6% in 2022, with a significant growth in solar energy, but the current expansion rate is not fast enough for Austria to reach its national target of 100% renewable electricity by 2030. With the amendment of its Environmental Impact Assessment Act in 2023, and by allowing investment in smaller PV installations without a permit, Austria has taken some steps to speed up the implementation of renewable energy projects. However, further (regulatory) initiatives to accelerate permitting are needed to address the remaining bottlenecks, such as staffing, and a complex sharing of competences between the federal and regional levels. Moreover, upgrading and expanding the transmission and distribution grids, especially between East and West Austria, remains a priority, including cross-border infrastructure investment as set out in the first integrated net infrastructure plan published in April 2024 (see Annex 7). Austria expects 18 GW of additional renewable energy capacity to be installed by 2030. This requires both more investment and a faster implementation of measures to integrate additional power generation into the transmission system.

There is still significant potential to make additional energy savings in the building sector and to reduce emissions from transport. In 2022, greenhouse gas emissions related to buildings declined by 17% due to the relatively low number of heating days, high energy prices and support for energy efficiency measures, including investment and reforms under the RRP. However, 76% of Austrian buildings were built before stricter energy performance standards were introduced, and Austria's building stock is in the lower third as regards performance on final energy consumption in the EU ([27]). Transport emissions per capita are above the EU average ([28]), including because of so-called 'fuel tank tourism' supported by environmentally harmful tax incentives. The 'Klimaticket' has made public transport more attractive but there remains scope to strengthen public transport services and alternatives to private car use in rural and remote regions, where 40% of the population live.

Further investments are needed to make industry greener and to maintain its competitiveness. Industry in Austria is broadly diversified and accounts for 21.9% of gross value added (20.6% in the EU). Since 2000, industrial production has seen strong growth, benefiting from dynamic development in key manufacturing sectors, which also markedly outperformed their German peers ([29]). Industrial production, which includes 'hard-to-abate' sectors such as steelmaking and chemicals, represents more than a fifth of total greenhouse gas emissions. In 2022, energy and industry emissions covered by the EU Emissions Trading System declined by 7.2%, owing to a reduction in steel production and an incident at Austria's main oil refinery that forced it out of operation for several months. Low-emission technologies and energy efficiency improvements, therefore, are crucial to preserve long-term competitiveness. Increasing the use of circular materials in

([25]) Statistical Review of World Energy 2023, Energy Institute.

([26]) Eurostat, Simplified energy balances.

([27]) ODYSSEE-Mure database, 2024: Average energy consumption per dwelling.

([28]) European Commission (2023) - State of the Energy Union Report 2023.

([29]) Scheiblecker M., WIFO 05/2023, Austrian Industrial Production in a Country Comparison.

Box 4: **The mid-term review of cohesion policy funds for Austria**

The mid-term review of cohesion policy funds is an opportunity to assess cohesion policy programmes and to tackle emerging needs and challenges in EU Member States and their regions. Member States are reviewing each programme taking into account; among other things the challenges identified in the European Semester, including in the 2024 country-specific recommendations. This review forms the basis for a proposal by the Member State for the definitive allocation of 15% of EU funding included in each programme.

Austria has made progress in the implementation of cohesion policy programmes and the European Pillar of Social Rights, but challenges remain as outlined in this report, including Annexes 14 and 17. While Austria has one of the lowest regional disparities in the EU, the existing differences in GDP per capita, labour productivity and the distribution of R&D investment risk being reinforced in the future by demographic challenges arising from issues such as the ongoing transition from non-urban to urban areas. Against this background, it remains important to continue implementing planned priorities, paying particular attention to: (i) integrated territorial development approaches to support inclusive and sustainable local development; (ii) improving the efficiency of the research and innovation system, in line with the national and regional smart specialisation strategies, and exploiting science-business links; (iii) energy efficiency and reduction of the carbon footprint, including through emerging green technologies; (iv) the quality and inclusiveness of education, training and lifelong learning, in particular for disadvantaged groups, to better anticipate change and to give people skills that are relevant for the current labour market; and (v) active inclusion and employability, in particular for disadvantaged groups.

Austria could benefit from the opportunities provided by the Strategic Technologies for Europe Platform (STEP) Regulation ([31]) to support the development or manufacturing of critical technologies, including clean and resource-efficient technologies.

industry and construction would also help to use fewer resources and strengthen Austria's strategic autonomy (see Annex 9). In addition to projects financed by the Austrian RRP, the European Regional Development Fund and the Just Transition Fund, the government's new climate transformation initiative (EUR 5.7 billion until 2030) supporting climate neutral projects will help to boost Austria's strong position in the fast-growing sectors that are producing net-zero technologies.

Reducing net land-take and soil sealing remains a major challenge and the built environment system continues to exacerbate pressures on resources. The total amount of land use in Austria in 2022 corresponded to 17.3% of the permanent settlement area, 52% of which is sealed ([30]). Despite evident improvements in conservation and restoration efforts, the status of many habitats and species continues to deteriorate. Prioritising the efficient use of land and buildings would help counter biodiversity loss and ecosystem fragmentation, bolster food security and strengthen climate resilience (see Annex 5).

([30]) Österreichische Raumordnungskonferenz (ÖROK) 2023: Flächeninanspruchnahme und Versiegelung in Österreich.

([31]) Regulation (EU) 2024/795.

KEY FINDINGS

With its wide policy scope, Austria's recovery and resilience plan (RRP) includes measures to address a series of structural challenges, in synergy with other EU funds, including cohesion policy funds, by:

- **Advancing the green transition** by reforming the tax system; accelerating the deployment of renewable energy (including hydrogen); and investing in energy efficiency, clean mobility, the decarbonisation of industry, biodiversity and the circular economy;

- **Supporting the digital transformation and competitiveness** by investing in strategic innovation such as quantum computing, microelectronics, precision medicine; upgrading digital infrastructures and skills; and reducing regulatory barriers that hinder business productivity;

- **Improving the skills and supply of workers** by increasing the availability of quality early childcare places, improving educational outcomes, especially for disadvantaged pupils, and investing in upskilling and reskilling to meet the needs of the labour market;

- **Improving access to and the efficiency of the healthcare system** by enhancing primary healthcare and the digitisation of health services.

The implementation of Austria's recovery and resilience plan is facing increasing challenges. Renewed efforts are key for a successful implementation of all the measures of Austria's recovery and resilience plan by August 2026.

Beyond the reforms and investments in the RRP and cohesion programmes, Austria would benefit from:

- **Consolidating its public finances** by ensuring the fiscal sustainability and adequacy of the long-term care and healthcare systems and by simplifying the fiscal framework across different levels of government to increase the efficiency of public spending;

- **Further improving the tax mix** to be more conducive to growth by shifting the tax burden away from labour and ending environmentally harmful tax schemes.

- **Improving its innovation performance and competitiveness** by promoting the creation and growth of new companies, including through better access to risk capital;

- **Addressing labour and skills shortages** by boosting the labour market participation of women (including full-time work); by promoting labour market access for older, low-skilled workers and people with a migrant background; by improving the quality and availability of early childhood education and care; and by improving the basic skills of disadvantaged pupils;

- **Improving energy security** by setting a clear strategy to diversify towards non-Russian gas suppliers and by upgrading the grid to match the accelerated pace of the expansion of renewable energy.

- **Further investing in the reduction of emissions and in energy savings**, in particular in the transport and building sectors.

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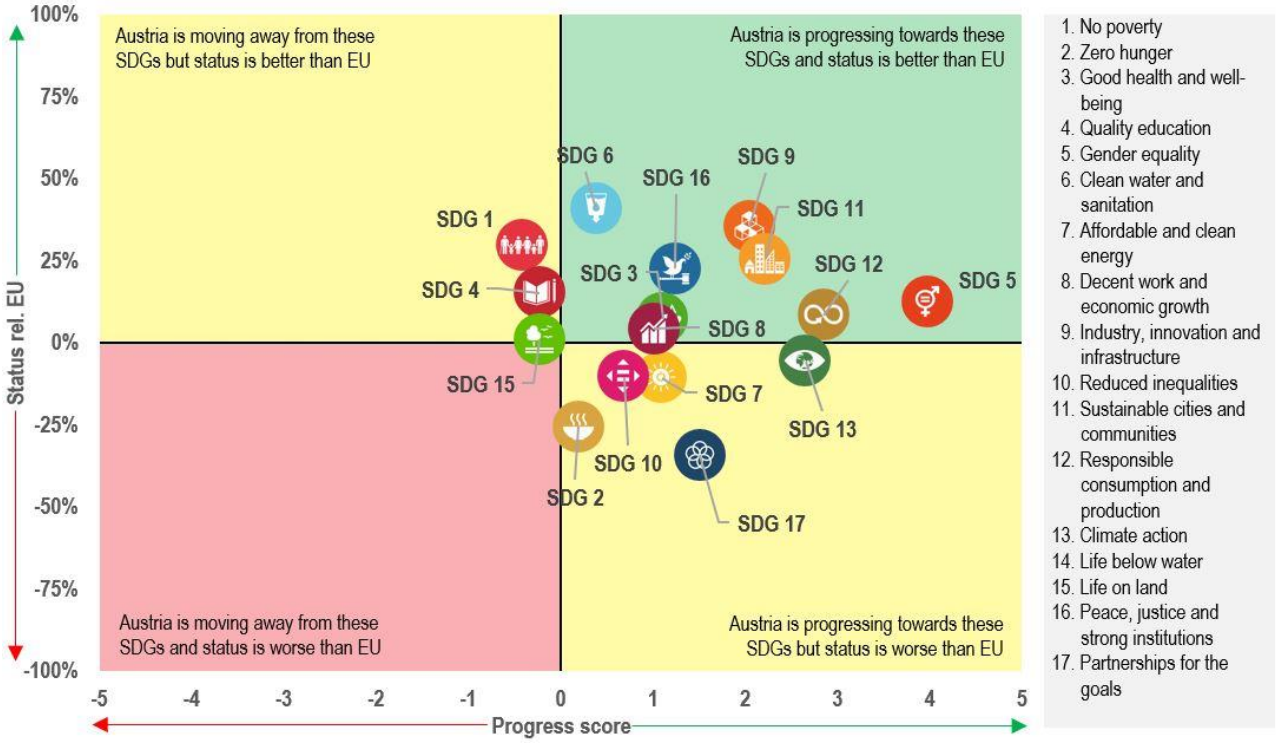
ANNEX 1: SUSTAINABLE DEVELOPMENT GOALS

This annex assesses Austria's progress on the Sustainable Development Goals (SDGs) along the four dimensions of competitive sustainability. The 17 SDGs and their related indicators provide a policy framework under the UN's 2030 Agenda for Sustainable Development. The aim is to end all forms of poverty, fight inequalities and tackle climate change and the environmental crisis, while ensuring that no one is left behind. The EU and its Member States are committed to this historic global framework agreement and to playing an active role in maximising progress on the SDGs. The graph below is based on the EU SDG indicator set developed to monitor progress on the SDGs in an EU context.

Austria performs well or is improving on most SDG indicators related to *environmental sustainability* (SDGs 2, 6, 7, 9, 11, 12, 13, 14), but it is moving away from SDG 15 (Life on land). Historically, Austria has performed very well on the share of renewable energy in its gross final energy consumption. It was able to further increase this share from 33.1% in 2017 to 33.8% in 2022, well above the EU average (23.0% in 2022). Various measures in the recovery and resilience plan (RRP) aim to further contribute to general greenhouse gas emission savings and are likely to positively affect Austria's environmental sustainability. These measures include the eco-social tax reform, the Renewables Expansion Law and investment in renewables, energy efficiency, zero-emission mobility and biodiversity. On SDG 15 (Life on land), Austria is slightly moving away from the goal, particularly due to continued soil sealing (with the index increasing from 103.3 in 2015 to 106.7 in 2018) and the rising impact of drought on ecosystems. The biodiversity strategy published by Austria in 2022 and the Biodiversity Fund enacted as part of the Austrian RRP will help address this lag.

While Austria generally performs well or is improving on SDG indicators related to

Graph A1.1: **Progress towards the SDGs in Austria**



For detailed datasets on the various SDGs, see the annual Eurostat report 'Sustainable development in the European Union'; for details on extensive country-specific data on the short-term progress of Member States: Key findings – Sustainable development indicators - Eurostat (europa.eu). A high status does not mean that a country is close to reaching a specific SDG, but signals that it is doing better than the EU on average. The progress score is an absolute measure based on the indicator trends over the past 5 years. The calculation does not take into account any target values as most EU policy targets are only valid for the aggregate EU level. Depending on data availability for each goal, not all 17 SDGs are shown for each country.

Source: Eurostat, latest update of 25 April 2024. Data refer mainly to the period 2017-2022 or 2018-2023. Data on SDGs may vary across the report and its annexes due to different cut-off dates.

***fairness* (SDGs 1, 3, 5, 7, 8, 10), there are adverse trends in some indicators for quality education (SDG 4).** Austria is performing better on the healthy life expectancy indicator (SDG 3; 61.8 years in 2021 compared to 57 years in 2016; EU average: 63.6 years in 2021). Austria has reversed course on the in-work at-risk-of-poverty rate (SDG 1; 8.2% in 2022, compared to 7.7% in 2017), but the long-term unemployment rate continued to improve (SDG 8; 1.1% in 2023 compared to 1.7% in 2018; EU average: 2.1%). On SDG 4 (Quality education), Austria increased the participation rate in early childhood education and care (for 3-to-5-year-olds) to 89% in 2021 and steadily increased its share of adults with a tertiary qualification from 40.3% in 2017 to 43.1% in 2022. However, there is still room for improvement in ensuring equal opportunities in education, particularly for disadvantaged young people, and also in increasing gender equality and social inclusion. This has been acknowledged by several measures in the Austrian RRP targeted at: (i) access to education, training and upskilling; and (ii) assistance to socially disadvantaged women.

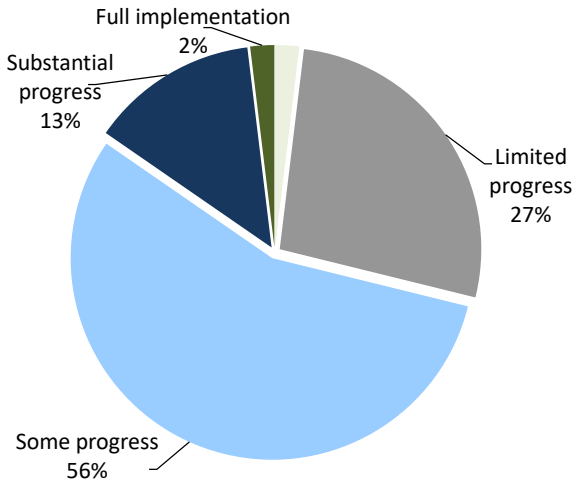
Austria performs well or very well on most SDG indicators related to *productivity* (SDGs 8 and 9), and productivity-related indicators within quality education (SDG 4). Compared to the EU average (55.6%), Austria performs relatively well in digital skills, with 64.7% of adults having at least basic digital skills in 2023. Austria also performs well on SDG 8 (Decent work and economic growth) and SDG 9 (Industry, innovation and infrastructure). With 3.2% of GDP allocated to R&D in 2022, Austria has one of the highest levels of R&D spending in the EU. The share of R&D personnel in the active population rose from 1.71% in 2016 to 2.02% in 2022 (EU average: 1.53% in 2022). Austria's RRP contains several measures to address bottlenecks in digitalisation and make significant investments in strategic research and innovation. This should ensure further progress on these SDGs.

Overall, Austria performs well on indicators related to *macroeconomic stability* (SDGs 8 and 16), while it needs to catch up on partnerships for the goals (SDG 17). Austria performs well on SDG 8 and notably increased its investment share of GDP from 23.6% in 2017 to 25.3% in 2022 (EU average: 22.9% in 2022). In addition, Austria achieves high scores on indicators measuring peace, justice and strong institutions (SDG 16), showing that there is a stable and predictable environment for doing business. The RRP includes several targeted measures to improve the sustainability of the pension system and the quality of public spending, and the plan is therefore expected to also contribute to some extent to Austria's long-term macroeconomic stability. On partnerships for the goals (SDG 17), Austria showed progress, but it is still performing poorly compared to the EU average, particularly on official development assistance and the share of households with a high-speed internet connection.

As the SDGs form an overarching framework, any links to relevant SDGs are either explained or depicted with icons in the other annexes.

The Commission has assessed the 2019-2023 country-specific recommendations (CSRs) ([32]) addressed to Austria as part of the European Semester. These recommendations concern a wide range of policy areas that are related to 14 of the 17 Sustainable Development Goals (SDGs) (see Annexes 1 and 3). The assessment considers the policy action taken by Austria to date ([33]) and the commitments in its recovery and resilience plan (RRP) ([34]). At this stage of RRP implementation, 71% of the CSRs focusing on structural issues from 2019-2023 have recorded at least 'some progress', while 29% recorded 'limited progress' or 'no progress' (see Graph A2.1). As the RRP is implemented further, considerable progress in addressing structural CSRs is expected in the coming years.

Graph A2.1: **Austria's progress on the 2019-2023 CSRs (2024 European Semester)**



Source: European Commission.

([32]) 2023 CSRs: EUR-Lex - 32023H0901(20) - EN - EUR-Lex (europa.eu)

2022 CSRs: EUR-Lex - 32022H0901(20) - EN - EUR-Lex (europa.eu)

2021 CSRs: EUR-Lex - 32021H0729(20) - EN - EUR-Lex (europa.eu)

2020 CSRs: EUR-Lex - 32020H0826(20) - EN - EUR-Lex (europa.eu)
2019 CSRs: EUR-Lex - 32019H0905(20) - EN - EUR-Lex (europa.eu)

([33]) Including policy action reported in Recovery and Resilience Facility (RRF) reporting (published twice a year, reporting on progress in implementing milestones and targets on the basis of the payment requests assessment).

([34]) Member States were asked to effectively address in their RRPs all or a significant subset of the relevant country-specific recommendations issued by the Council. The CSR assessment presented here considers the degree of implementation of the measures included in the RRP and of those carried out outside of the RRP at the time of assessment. Measures laid down in the Annex of the adopted Council Implementing Decision on approving the assessment of the RRP, which have not yet been adopted or implemented but considered credibly announced, in line with the CSR assessment methodology, warrant 'limited progress'. Once implemented, these measures can lead to 'some/substantial progress or full implementation', depending on their relevance.

Table A2.1: **Summary table on 2019-2023 CSRs**

Austria	Assessment in May 2024*	RRP coverage of CSRs until 2026**	Relevant SDGs
2019 CSR 1	**Limited progress**		
Ensure the sustainability of the health,	Some progress	Relevant RRP measures being implemented as of 2021 and planned as of 2022 and 2023.	SDG 3
long-term care,	Some Progress	Relevant RRP measures being implemented as of 2021.	SDG 3
and pension systems, including by adjusting the statutory retirement age in view of expected gains in life expectancy.	Limited progress	Relevant RRP measures being implemented as of 2020 and planned as of 2022.	SDG 8
Simplify and rationalise fiscal relations and responsibilities across layers of government and align financing and spending responsibilities.	Limited progress	Relevant RRP measures planned as of 2022.	SDG 8, 16
2019 CSR 2	**Limited progress**		
Shift taxes away from labour to sources less detrimental to inclusive and sustainable growth.	Some progress	Relevant RRP measures being implemented as of 2021.	SDG 8, 10, 12
Support full-time employment among women, including by improving childcare services,	Limited progress	Relevant RRP measures planned as of 2023.	SDG 4, 5, 8, 10
and boost labour market outcomes for the low skilled in continued cooperation with the social partners.	Limited progress	Relevant RRP measures planned as of 2020.	SDG 8, 10
Raise the levels of basic skills for disadvantaged groups, including people with a migrant background.	Limited progress	Relevant RRP measures being implemented as of 2021 and planned as of 2025.	SDG 4, 8, 10
2019 CSR 3	**Some progress**		
Focus investment-related economic policy on research and development, innovation,	Substantial Progress	Relevant RRP measures being implemented as of 2021 and planned as of 2022 and 2024.	SDG 9, 10, 11
digitalisation,	Some progress	Relevant RRP measures planned as of 2021 and 2022.	SDG 9, 10, 11
and sustainability, taking into account regional disparities.	Some progress	Relevant RRP measures being implemented as of 2020 and 2021 and planned as of 2022, 2023 and 2024.	SDG 1, 7, 8, 9, 10, 11, 13
Support productivity growth by stimulating digitalisation of businesses and company growth	Some progress	Relevant RRP measures being implemented as of 2021 and planned as of 2022.	SDG 8, 9
and by reducing regulatory barriers in the service sector.	Limited progress	Relevant RRP measures being implemented as of 2021.	SDG 9
2020 CSR 1	**Some progress**		
Take all necessary measures, in line with the general escape clause of the Stability and Growth Pact, to effectively address the COVID-19 pandemic, sustain the economy and support the ensuing recovery. When economic conditions allow, pursue fiscal policies aimed at achieving prudent medium-term fiscal positions and ensuring debt sustainability, while enhancing investment.	Not relevant anymore	Not applicable	SDG 8, 16
Improve the resilience of the health system by strengthening public health and primary care.	Some progress	Relevant RRP measures being implemented as of 2021 and planned as of 2022 and 2023.	SDG 3
2020 CSR 2	**Some progress**		
Ensure equal opportunities in education	Some progress	Relevant RRP measures being implemented as of 2021 and planned as of 2025.	SDG 4, 8, 10
and increased digital learning.	Some progress	Relevant RRP measures being implemented as of 2020 and 2021.	SDG 4
2020 CSR 3	**Substantial Progress**		
Ensure an effective implementation of liquidity and support measures, in particular for small and medium-sized enterprises,	Full Implementation	Not applicable	SDG 8, 9
and reduce administrative and regulatory burden.	Substantial Progress	Relevant RRP measures being implemented as of 2021.	SDG 8, 9
Front-load mature public investment projects	Some progress	Relevant RRP measures being implemented as of 2021.	SDG 8, 16
and promote private investment to foster the economic recovery.	Some progress	Relevant RRP measures being implemented as of 2021.	SDG 8, 9
Focus investment on the green and digital transition, in particular on basic and applied research, as well as innovation,	Substantial Progress	Relevant RRP measures being implemented as of 2021 and planned as of 2022 and 2024.	SDG 9
sustainable transport,	Some progress	Relevant RRP measures being implemented as of 2020 and 2021 and planned as of 2022.	SDG 11
clean and efficient production and use of energy.	Some progress	Relevant RRP measures planned as of 2021 and 2022.	SDG 7, 9, 13
2020 CSR 4	**Some progress**		
Make the tax mix more efficient and more supportive to inclusive and sustainable growth.	Some progress	Relevant RRP measures being implemented as of 2021.	SDG 8, 10, 12

(Continued on the next page)

Table (continued)

2021 CSR 1	**Substantial progress**		
In 2022, maintain a supportive fiscal stance, including the impulse provided by the Recovery and Resilience Facility, and preserve nationally financed investment. Keep the growth of nationally financed current expenditure under control.	Not relevant anymore	Not applicable	SDG 8, 16
When economic conditions allow, pursue a fiscal policy aimed at achieving prudent medium-term fiscal positions and ensuring fiscal sustainability in the medium term.	Not relevant anymore	Not applicable	SDG 8, 16
At the same time, enhance investment to boost growth potential. Pay particular attention to the composition of public finances, on both the revenue and expenditure sides of the budget, and to the quality of budgetary measures in order to ensure a sustainable and inclusive recovery. Prioritise sustainable and growth-enhancing investment, in particular investment supporting the green and digital transition.	Not relevant anymore	Not applicable	SDG 8, 16
Give priority to fiscal structural reforms that will help provide financing for public policy priorities and contribute to the long-term sustainability of public finances, including, where relevant, by strengthening the coverage, adequacy and sustainability of health and social protection systems for all.	Not relevant anymores	Not applicable	SDG 8, 16
2022 CSR 1	**Some progress**		
In 2023, ensure that the growth of nationally-financed primary current expenditure is in line with an overall neutral policy stance, taking into account continued temporary and targeted support to households and firms most vulnerable to energy price hikes and to people fleeing Ukraine. Stand ready to adjust current spending to the evolving situation.	Substantial progress	Not applicable	SDG 8, 16
Expand public investment for the green and digital transitions, and for energy security taking into account the REPowerEU initiative, including by making use of the Recovery and Resilience Facility and other Union funds.	Substantial progress	Not applicable	SDG 8, 16
For the period beyond 2023, pursue a fiscal policy aimed at achieving prudent medium-term fiscal positions.	Substantial Progress	Not applicable	SDG 8, 16
Ensure the adequacy and fiscal sustainability of the long-term care system.	Some Progress	Relevant RRP measures being implemented as of 2021.	SDG 3
Simplify and rationalise fiscal relations and responsibilities across layers of government and align financing and spending responsibilities.	Limited Progress	Relevant RRP measures planned as of 2022.	SDG 8, 16
Improve the tax mix to support inclusive and sustainable growth.	Some Progress	Relevant RRP measures being implemented as of 2021.	SDG 8, 10, 12
2022 CSR 2			
Proceed with the implementation of its recovery and resilience plan, in line with the milestones and targets included in the Council Implementing Decision of 13 July 2021.	RRP implementation is monitored by assessing RRP payment requests and analysing reports published twice a year on the achievement of the milestones and targets. These are to be reflected in the country reports.		
Swiftly finalise the negotiations with the Commission of the 2021-2027 cohesion policy programming documents with a view to starting their implementation.	Progress on the cohesion policy programming documents is monitored under the EU cohesion policy.		
2022 CSR 3	**Limited Progress**		
Boost labour market participation of women, including by enhancing quality childcare services,	Limited Progress	Relevant RRP measures planned as of 2023.	SDG 4, 5, 8, 10
and improve labour market outcomes for disadvantaged groups.	Limited Progress	Relevant RRP measures being implemented as of 2020 and planned as of 2025.	SDG 8, 10
2022 CSR 4	**Some Progress**		
Reduce overall reliance on fossil fuels, and diversify imports of fossil fuels,	Limited Progress	Relevant RRP measures being implemented as of 2020 and planned as of 2022.	SDG 7, 9, 13
by accelerating the deployment of renewable energy and of the necessary infrastructure, in particular by simplifying planning and further streamlining permitting procedures,	Some Progress	Relevant RRP measures being implemented as of 2020 and planned as of 2022.	SDG 7, 8, 9, 13
and enhancing energy efficiency, in particular in the industry and building sectors	Some Progress	Relevant RRP measures being implemented as of 2021 and planned as of 2022.	SDG 7
and diversifying energy supplies, as well as increasing flexibility and reverse-flow capacity of interconnections	Some Progress	Relevant RRP measures being implemented as of 2020 and planned as of 2022.	SDG 7, 9

(Continued on the next page)

Table (continued)

2023 CSR 1	**Some Progress**		
Wind down the emergency energy support measures in force, using the related savings to reduce the government deficit, as soon as possible in 2023 and 2024. Should renewed energy price increases necessitate new or continued support measures, ensure that these are targeted at protecting vulnerable households and firms, fiscally affordable and preserve incentives for energy savings.	Some Progress	Not applicable	SDG 8, 16
Ensure prudent fiscal policy, in particular by limiting the nominal increase in nationally-financed net primary expenditure in 2024 to not more than 4.6%.	No Progress	Not applicable	SDG 8, 16
Preserve nationally-financed public investment and ensure the effective absorption of RRF grants and other EU funds, in particular to foster the green and digital transitions.	Some Progress		SDG 8, 16
For the period beyond 2024, continue to pursue a medium-term fiscal strategy of gradual and sustainable consolidation, combined with investments and reforms conducive to higher sustainable growth, to achieve a prudent medium-term fiscal position.	Substantial Progress	Not applicable	SDG 8, 16
Ensure the adequacy and fiscal sustainability of the long-term care system	Some Progress	Relevant RRP measures being implemented as of 2021.	SDG 3, 8
and the fiscal sustainability of the health care system.	Some Progress		SDG 3, 8
Simplify and rationalise fiscal relationships and responsibilities across layers of government and align financing and spending responsibilities.	Limited Progress	Relevant RRP measures planned as of 2022.	SDG 8, 16
Improve the tax mix to support inclusive and sustainable growth.	Some Progress	Relevant RRP measures being implemented as of 2021.	SDG 8, 10, 12
2023 CSR 2			
Continue the steady implementation of its recovery and resilience plan and swiftly finalise the REPowerEU chapter with a view to rapidly starting its implementation. Proceed with the speedy implementation of cohesion policy programmes, in close complementarity and synergy with the recovery and resilience plan.	RRP implementation is monitored through the assessment of RRP payment requests and analysis of the bi-annual reporting on the achievement of the milestones and targets, to be reflected in the country reports. Progress with the cohesion policy is monitored in the context of the Cohesion Policy of the European Union.		
2023 CSR 3	**Limited Progress**		
Boost labour market participation of women, including by enhancing quality childcare services,	Limited Progress	Relevant RRP measures planned as of 2023.	SDG 4, 5, 8, 10
and of older workers, and improve labour market outcomes for disadvantaged groups, such as low-skilled jobseekers and people with a migrant background, including by raising their levels of basic skills.	Limited Progress	Relevant RRP measures being implemented as of 2020 and planned as of 2025.	SDG 4, 5, 8, 10
2023 CSR 4	**Some Progress**		
Reduce overall reliance on fossil fuels and	Limited Progress	Relevant RRP measures being implemented as of 2020 and planned as of 2022.	SDG 7, 9, 13
diversify gas supply sources to significantly decrease dependence on Russia.	Limited Progress		SDG 7, 8, 9
Accelerate the deployment of renewable energy and the necessary infrastructure, in particular by simplifying permitting procedures and putting in place dedicated acceleration areas.	Some Progress	Relevant RRP measures being implemented as of 2020 and planned as of 2022.	SDG 7, 9, 13
Improve energy efficiency.	Some Progress	Relevant RRP measures being implemented as of 2021 and planned as of 2022.	SDG 7, 9, 13
Reduce emissions, in particular in the transport sector.	Some Progress	Relevant RRP measures planned as of 2023.	SDG 7, 9, 13
Step up policy efforts aimed at the provision and acquisition of skills and competences needed for the green transition.	Some Progress	Relevant RRP measures being implemented as of 2021 and planned as of 2024.	SDG 4, 7, 13

Note:

* See footnote ([34]).

** RRP measures included in this table contribute to the implementation of CSRs. Nevertheless, additional measures outside the RRP may be necessary to fully implement CSRs and address their underlying challenges. Measures indicated as 'being implemented' are only those included in the RRF payment requests submitted and positively assessed by the European Commission.

Source: European Commission.

This Annex provides a snapshot of Austria's implementation of its recovery and resilience plan (RRP), past the mid-way point of the Recovery and Resilience Facility's (RRF) lifetime. The RRF has proven central to the EU's recovery from the COVID-19 pandemic, helping speed up the twin green and digital transition, while adapting to geopolitical and economic developments, and strengthening resilience against future shocks. The RRF is also helping implement the UN Sustainable Development Goals and address the country-specific recommendations (see Annex 2).

The RRP paves the way for disbursing up to EUR 3.96 billion in grants under the RRF over the 2021-2026 period, representing 0.8% of Austria's GDP ([35]). As of mid-May 2024, EUR 1.19 billion has been disbursed to Austria under the RRF.

Austria still has EUR 2.8 billion available in grants from the RRF. This will be disbursed after the assessment of the future fulfilment of the remaining 134 milestones and targets ([36]) included in the Council Implementing Decision ([37]) (CID), ahead of the 2026 deadline established for the RRF.

Austria's progress in implementing its plan is recorded in the Recovery and Resilience Scoreboard ([38]). The scoreboard gives an overview of the progress made in implementing the RRF as a whole. Graph A3.1 shows the current state of play as reflected in the scoreboard.

Austria's RRP includes a REPowerEU chapter to phase out its dependency on Russian fossil fuels, diversify its energy supplies, and produce more clean energy in the coming years. To kick-start the REPowerEU chapter's implementation, EUR 42.1 million was disbursed as pre-financing on 21 December 2023. This helped launch relevant reforms like streamlining permitting procedures for renewable energy projects, in particular wind farms.

The plan has a strong focus on the green transition, dedicating 56% of the available funds to measures that support climate objectives and 36% of its total allocation to support the digital transition. It also retains a strong social dimension with social protection measures, especially related to education and skills, healthcare, business environment and research and innovation.

Table A3.1: **Key facts of the Austrian RRP**

Initial plan CID adoption date	13 July 2021
Scope	Revised plan with REPowerEU chapter
Last major revision	9 November 2023
Total allocation	EUR 3.96 billion in grants (0.8% of 2023 GDP)
Investments and reforms	34 investments and 29 reforms
Total number of milestones and targets	178
Fulfilled milestones and targets	44 (24.7% of total)

Source: RRF Scoreboard

With 1 complete payment request completed, Austria's implementation of its RRP is underway. However, timely completion requires increased efforts. The Commission gave a positive assessment of Austria's payment request on 10 March 2023, taking into account the opinion of the Economic and Financial Committee. This led to EUR 700 million being disbursed in financial support on 20 April 2023 ([39]). The related 44 milestones and targets covered reforms and investments such as the entry into force of a Renewable Expansion Law, which will accelerate the roll-out of renewable energy production, and others in the areas of public transportation, energy efficiency and digitalisation of schools.

([35]) GDP information is based on 2023 data. Source: https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/index.html?lang=en

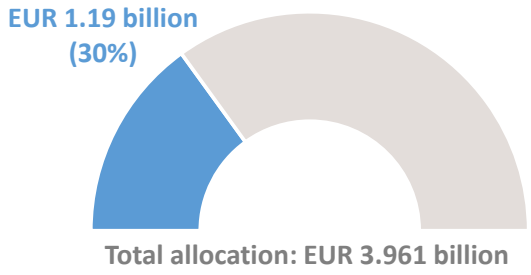
([36]) A milestone or target is satisfactorily fulfilled once a Member State has provided evidence to the Commission that it has reached the milestone or target and the Commission has assessed it positively in an implementing decision.

([37]) https://data.consilium.europa.eu/doc/document/ST-10159-2021-ADD-1/en/pdf

([38]) https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/country_overview.html

([39]) When requested payments are disbursed, the pre-financing is cleared proportionally. The net amounts are quoted here.

Graph A3.1: **Total grants disbursed under the RRF**



Note: This graph displays the amount of grants, including pre-financing, disbursed so far under the RRF. Grants are non-repayable financial contributions. The total amount of grants given to each Member State is determined by an allocation key and the total estimated cost of the respective RRP.
Source: RRF Scoreboard

As of 15 May 2024, Austria is working towards its second payment request. Table A3.2 highlights some relevant measures achieved so far, and some that will be implemented before 2026 to keep making Austria's economy greener, more digital, inclusive, and resilient.

Table A3.2: **Measures in Austria's RRP**

Reforms and investments implemented
• Introduction of 1-2-3 climate ticket • Eco-social tax reform • Exchange of oil and gas heating systems
Upcoming reforms and investments
• Reform of the long-term care system • Cultural and art objects digitalisation programme • Start-up package

Source: FENIX

EU funding instruments provide considerable resources for recovery and growth to the EU Member States. In addition to the EUR 3.96 billion of Recovery and Resilience Facility (RRF) funding described in Annex 3, EU cohesion policy funds ([40]) provide EUR 1.1 billion to Austria for the 2021-2027 period ([41]). Support from these two instruments combined represents around 1.05% of the country's 2023 GDP, compared to the EU average of 5.38% of GDP ([42]). Cohesion policy supports regional development, economic, social and territorial convergence and competitiveness, through long-term investment in line with EU priorities and with national and regional strategies.

During the 2014-2020 programming period, cohesion policy funds boosted Austria's competitiveness, with tangible achievements notably in research and innovation, energy efficiency, renewable energy, education and skills. By the end of the eligibility period in December 2023, 2014-2020 cohesion policy funds ([43]) had made EUR 1.3 billion available to Austria ([44]), of which EUR 762.4 million has been disbursed since March 2020, when the COVID-19 pandemic began ([45]). The achievements of cohesion policy funds over the programming period included the support provided to develop research and innovation infrastructure and projects, which have created more than 400 new research jobs so far. A total of 780 businesses have received financing, mainly for productive investments and increasing energy efficiency, which has triggered more than EUR 1.4 billion of private investments. Support for increasing energy efficiency and using renewable energies has resulted in an annual decrease of greenhouse gas emissions of 124 000 tonnes of CO_2 equivalent. During the same period, more than 109 000 young people in Austria received support under measures implemented under the European Social Fund (ESF), with EUR 265.4 million allocated to prevent early school living. Moreover, more than 313 000 participants had been reached with ESF-funded measures, including support provided to people furthest from the labour market to gain qualifications and get jobs.

In the current programming period (2021-2027), cohesion policy will provide a further boost to Austria's competitiveness, to the green transition and to social cohesion, improving the living and working conditions of Austria's people. In 2021-2027, the European Regional Development Fund (ERDF) will increase the efficiency and economic exploitation of scientific performance and boost productivity by supporting research and innovation equipment, benefiting 741 researchers. Support for energy efficiency measures in businesses and municipal bodies will reduce greenhouse gas emissions by almost 270 000 tonnes of CO_2 equivalent/year. By investing in SMEs and strengthening the start-up environment, the Just Transition Fund (JTF) will promote diversification towards sustainable and innovation-driven economic activities in line with the Green Deal's objectives. For this to work, the JTF will support 60 businesses and create incubation capacity for 29 businesses. This will be complemented by JTF support to research and innovation projects that enable a transition to low- and zero-emission technologies, benefiting 210 researchers. The European Social Fund Plus (ESF+), with a budget totalling EUR 393 million, will provide EUR 128 million to implement measures that aim to improve educational outcomes to prevent early school leaving, in particular for students who struggle at school (especially those students from a disadvantaged socio-economic background or a migrant background), with support from the ESF+. In the field of social inclusion, EUR 114 million of ESF+ funds will be used to fund measures to support labour market integration and promote active inclusion including of people with disabilities. The JTF also invests some EUR 60 million in ESF+ type measures, e.g. i) establishing an eco-tech academy; ii) delivering training in environmental sustainability, photovoltaics and e-mobility; and iii) providing targeted career guidance and green skills support

([40]) In 2021-2027, cohesion policy funds include the European Regional Development Fund, the European Social Fund Plus and the Just Transition Fund.

([41]) European territorial cooperation (ETC) programmes are excluded from the figure. In 2021-2027, the total investment, including national financing, amounts to EUR 2.9 billion.

([42]) RRF funding includes both grants and loans, where applicable. The EU average is calculated for cohesion policy funds excluding ETC programmes. GDP figures are based on Eurostat data for 2022.

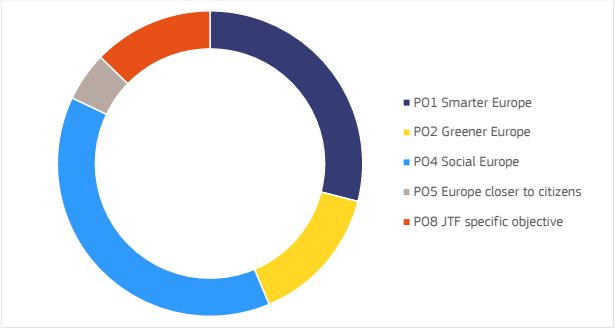
([43]) In 2014-2020, cohesion policy funds included the European Regional Development Fund and the European Social Fund. REACT-EU allocations are included but ETC programmes are excluded.

([44]) In 2014-2020, the total investment, including national financing, amounted to EUR 3.6 billion.

([45]) Cut-off date: 14 May 2024.

to employers. With this work, cohesion policy contributes to achieving the UN Sustainable Development Goals (SDGs) in Austria, in particular SDG 8 (Decent work and economic growth), SDG 9 (Industry, innovation, infrastructure) and SDG 1 (No poverty).

Graph A4.1: **Distribution of cohesion policy funding across policy objectives in Austria**

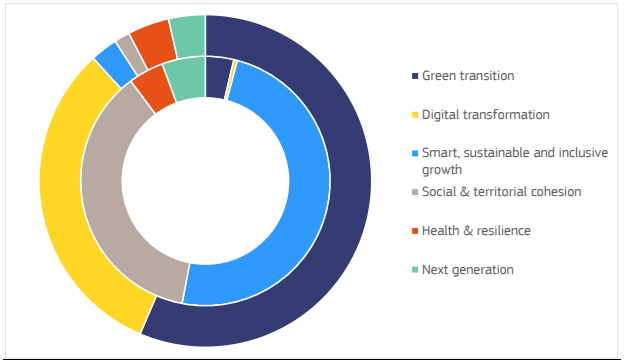


Source: European Commission

Through combined action, cohesion policy and the recovery and resilience plan (RRP) have a mutually reinforcing impact in Austria. For instance, the ERDF supports start-up services throughout the country's regions, e.g. services to coach knowledge-intensive start-ups and provide incubation capacities. This is complemented by a reform implemented as part of the RRP that helps start-ups in the early stages of operations, e.g. by introducing a new legal form for start-ups and examining further tax incentives. In addition, cohesion policy and the RRP together increase energy efficiency to help Austria achieve its ambitious objective to already become climate neutral in 2040. The Austrian ERDF & JTF programme helps businesses and municipalities improve their energy efficiency, while the RRP finances major projects in large businesses and Emissions Trading System installations so they can, for example, switch to renewable energies. The contribution of cohesion policy and RRP funding by policy objective is illustrated by Graphs A4.1 and A4.2.

The Technical Support Instrument (TSI) helps Austria invest in its public administration and create a better enabling environment for EU and national investment. The TSI has funded projects in Austria to design and implement growth-enhancing reforms since 2018. The support provided under the TSI 2023 included: i) strengthening tax compliance by providing behavioural insights for revenue administration through the implementation of a multi-country project; ii) promoting the TSI flagship, 'Renovation Wave', by advancing building decarbonisation; and iii) raising the quality and equity of school education in Austria by strengthening human resources planning and policies for the teaching profession. The TSI is also helping Austria boost its overall capacity to integrate the 'do no significant harm' (DNSH) principle into public funding programmes related to its RRP and environmental aspects into public finances.

Graph A4.2: **Distribution of RRF funding by pillar in Austria**



(1) Each RRP measure helps achieve the aims of two of the six policy pillars of the RRF. The primary contribution is shown in the outer circle while the secondary contribution is shown in the inner circle. Each contribution represents 100% of the RRF funds. Therefore, the total contribution to all pillars displayed on this chart amounts to 200% of the RRF funds allocated to Austria.

Source: European Commission

Austria also receives funding from several other EU instruments, including those listed in Table A4.1.

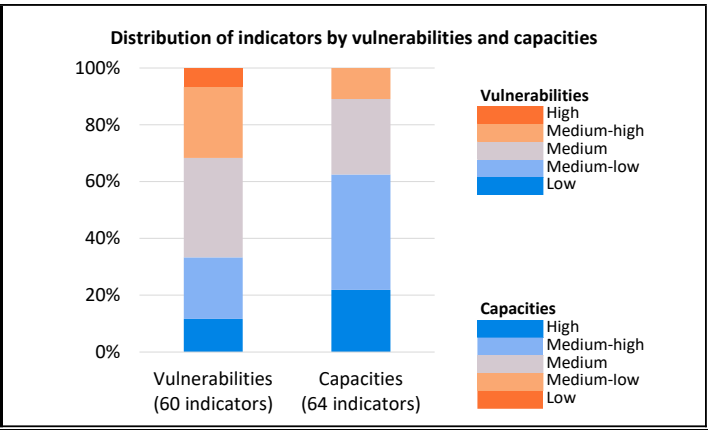
Table A4.1: **Support from EU instruments in Austria**

EU grants		
	Amount 2014-2020 (EUR million)	Amount 2021-2027 (EUR million)
Cohesion policy	1 250.2	1 066.8
RRF grants (1)	-	3 961.2
Public sector loan facility (grant component) (2)	-	10.3
Common agricultural policy (3)	11 100.0	6 084.0
EMFF/EMFAF (4)	7.0	6.7
Connecting Europe Facility (5)	962.7	238.9
Horizon 2020 / Horizon Europe (6)	1 959.5	1 027.9
LIFE programme (7)	57.8	91.6
EU guarantees		
	EU Guarantee (EUR million)	Volume of operations (EUR million)
European Fund for Strategic Investment 2015-2020 (8)	643.0	1 978.1
InvestEU 2021-2027 (9)	67.2	204.7

(1) RRF implementation period is 2021-2026.
(2) The public sector loan facility's programming period is 2021-2025 and the amount reflects the national share in its grant component reserved until the end of the period.
(3) Common agricultural policy programming periods are 2014-2022 and 2023-2027.
(4) EMFF – European Maritime and Fisheries Fund, EMFAF – European Maritime, Fisheries and Aquaculture Fund.
(5) Data on the Connecting Europe Facility covers transport and energy and has a cut-off date of 15 May 2024.
(6) Data on Horizon Europe (2021-2027) has a cut-off date of 13 May 2024.
(7) 2021-2027 data on the LIFE programme has a cut-off date of 15 May 2024.
(8) The amount of the EU guarantee signed under the EFSI Infrastructure and Innovation Window was derived based on the signed amount of the operations and the average internal multiplier, as reported by the EIB (cut-off date is 31 December 2023).
(9) The amount of the EU guarantee and of the volume of operations signed under InvestEU includes the EU compartment as well as the Member State compartments (cut-off date is 31 December 2023).
Source: European Commission

Table A5.1: **Resilience indices across dimensions for Austria and the EU-27**

Dimension		AT 2023 RDB	AT 2024 RDB	EU-27 2024 RDB
Overall resilience	Vulnerabilities			
	Capacities			
Social and economic	Vulnerabilities			
	Capacities			
Green	Vulnerabilities			
	Capacities			
Digital	Vulnerabilities			
	Capacities			
Geopolitical	Vulnerabilities			
	Capacities			



(1) The synthetic indices aggregate the relative resilience situation of countries across all considered indicators. For an indicator, each country's relative situation in the latest available year is compared with the collection of values of that indicator for all Member States and all years in the reference period.
Source: Resilience Dashboards - version spring 2024, data up to 2022

This Annex uses the Commission's resilience dashboards (RDB) ([46]) to show Austria's relative resilience capacities and vulnerabilities ([47]) that may be of relevance for societal, economic, digital and green transformations, and for dealing with future shocks and geopolitical challenges. ([48])

According to the RDB's set of resilience indicators, Austria has medium overall vulnerabilities and medium-high overall capacities, both of which have remained stable with respect to the 2023 RDB. This is reflected in the distribution of indicators across different resilience categories: more than 60% of capacity indicators are medium-high or high, while about 70% of vulnerability indicators are between medium and low. With respect to the 2023 RDB, Austria's indicators for its aggregate resilience situation have neither improved nor worsened.

Austria has medium-low vulnerabilities and medium-high capacities in the social and economic dimension. The country has improved from the previous year in the vulnerability indicators for its gender employment gap and long-term unemployment rate. Vulnerability related to government debt remains medium-high. Capacity indicators that have worsened with respect to the previous year include the impact of social transfers on poverty reduction, the household saving rate, and the government investment to GDP ratio. Conversely, there has been an improvement in the employment rate, active labour market policies per person wanting to work and the absolute number of healthy life years at birth.

In the green dimension, Austria has maintained its high capacities, but its overall vulnerabilities have not improved, remaining medium-high. The farmland bird index, soil erosion by water, and harmonised risk indicator 1 for pesticides are the high vulnerability indicators. At the same time, Austria has very low water exploitation vulnerabilities, putting it last in the EU. It has strong capacities, including its energy productivity, and performs the best in the indicators related to organic farming and national expenditure on environmental protection.

With respect to the 2023 RDB, Austria has maintained medium vulnerabilities and medium-high capacities in the digital

([46]) Https://ec.europa.eu/info/strategy/strategic-planning/strategic-foresight/2020-strategic-foresight-report/resilience-dashboards_en. Resilience is defined as the ability not only to withstand and cope with challenges but also to undergo transitions, in a sustainable, fair, and democratic manner. 2020 Strategic Foresight Report: *Charting the course towards a more resilient Europe* (COM(2020) 493).

([47]) Vulnerabilities describe features that can exacerbate the negative impact of crises and transitions, or obstacles that may hinder the achievement of long-term strategic goals, while capacities refer to enablers or abilities to cope with crises and structural changes and to manage transitions.

([48]) This Annex is linked to Annex 1 on SDGs, Annex 6 on the green deal, Annex 8 on the fair transition to climate neutrality, Annex 9 on resource productivity, efficiency and circularity, Annex 10 on the digital transition and Annex 14 on the European pillar of social rights.

dimension. Many of its capacity indicators have improved, putting it first in the EU for investment per employee in high-technology sectors. It also has medium-high capacities in the use of online courses and online learning activities by young people. Vulnerability indicators where Austria is below the EU average are cybersecurity incidents, the lack of cloud services, the number of businesses without information and communication (ICT) training programmes, and the broadband access gap by company size.

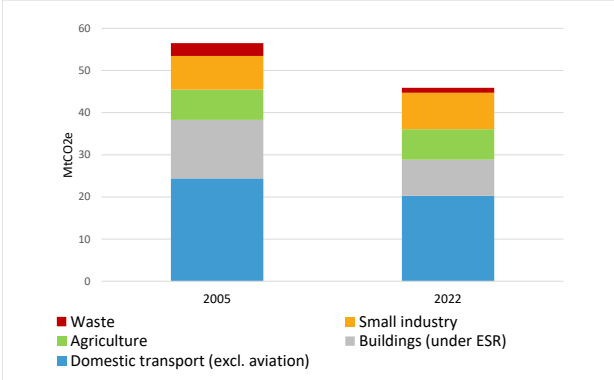
In the geopolitical dimension, **Austria has medium vulnerabilities and medium capacities.** Compared to previous years, several of its capacity indicators, such as its intra-EU trade in energy and its extra-EU trade openness, have improved. Looking at its vulnerabilities, Austria is behind other EU countries in terms of its metal footprint per capita with a worsening of the rate of decline in its per capita metal footprint.

Austria has made progress in the green transition, with more action needed on specifying the policies to attain its 2030 effort sharing target, addressing potential losses from climate hazards, protection of biodiversity and ecosystems, and other areas. This Annex provides a snapshot of climate, energy, and environmental aspects of the transition in Austria ([49]).

Austria has not yet submitted a draft updated national energy and climate plan (NECP) for 2021-2030. It is crucial that Austria submit this plan for assessment by the Commission, outlining how it will meet the 2030 climate and energy targets and the objectives of the Energy Union. To ensure that the policies and measures required to reach the 2030 targets are implemented effectively, a detailed mapping of investment needs against available sources of funding is key.

Austria has not yet provided information on the policies and measures to bring down effort sharing emissions to its 2030 target ([50]). In 2022, Austria's greenhouse gas emissions from its effort sharing sectors are expected to be 19% below 2005 levels ([51]). Current policies are projected to reduce Austria's effort sharing emissions by 27% from 2005 levels by 2030, but information on additional policies and measures to achieve further reductions is lacking. This leaves a gap of 21 percentage points below Austria's effort sharing target to achieve a 48% reduction compared to 2005 levels, highlighting the importance for the country to plan more ambitious policies and measures in its final updated NECP, due on 30 June 2024.

Graph A6.1: **Greenhouse gas emissions from the effort sharing sectors in Mt CO2eq, 2005-2022**



Source: European Environment Agency

There is scope for increasing Austria's targets for renewable energy and energy efficiency in its updated NECP, as the contribution set out in its previous NECP are not aligned with the more ambitious EU 2030 energy targets.

Austria's transport mix is relatively evenly balanced between road and rail, and its shift to sustainable road transport is gaining momentum ([52]). In 2022, battery electric vehicles accounted for 2.1% of Austria's passenger car fleet, significantly higher than the EU average of 1.2%. In 2023, around 19 600 publicly accessible charging points provided a charging point for every eight e-vehicles, above the EU average of 1:10. Car trips account for 75% of the distances travelled (EU average: 85%), while rail accounts for 9% (EU average: 6%). For freight, road transport accounts for a smaller proportion of tonnes transported than the EU average (62% vs 75%), with a remarkable 27% of freight being transported by rail ([53]), and 10% through pipelines.

([49]) This Annex is complemented by Annex 7 on energy transition and competitiveness, Annex 8 on the fair transition to climate neutrality, Annex 9 on resource efficiency, circularity, and productivity, and relevant topics in other annexes to this country report.

([50]) The national greenhouse gas emission reduction target is laid down in Regulation (EU) 2023/857 (the Effort Sharing Regulation). The aim is to align action in the sectors concerned with the objective to reach the EU-level economy wide target of greenhouse gas reductions of at least 55% compared to 1990 levels. The target also applies to the sectors outside the current EU Emissions Trading System, notably buildings (heating and cooling), road transport, agriculture, waste, and small industry (known as the effort sharing sectors).

([51]) The effort sharing emissions for 2022 are based on approximated inventory data. The final data will be established in 2027 after a comprehensive review. The information on projections of effort sharing emissions 'with existing measures' (WEM) and 'with additional measures' (WAM) is based on the latest data that had to be reported by 15 March 2023 under Article 18 of Regulation 2018/1999 (the Governance Regulation).

([52]) Unless otherwise indicated, data in this section refer to 2021. See European Commission, 2023, EU transport in figures, transport.ec.europa.eu.

([53]) Austria has a proactive modal shift policy, with road tolls for road freight transport and subsidies and support for a combined transport mode for rail freight transport.

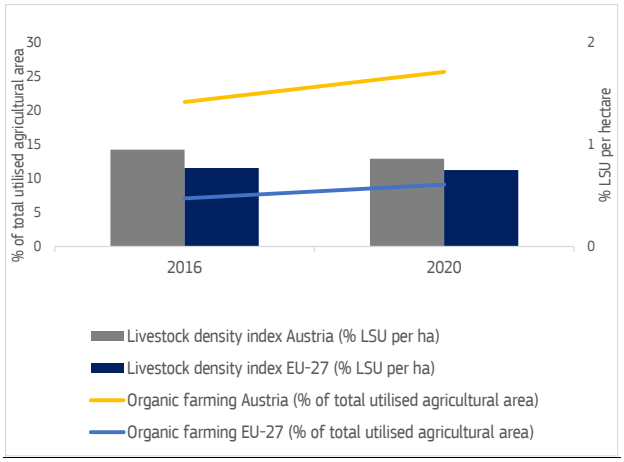
71% of Austria's railway network is electrified (significantly above than the EU average of 56%).

Austria has the potential to increase its capacity to remove carbon from the atmosphere through land use, land use change and forestry (LULUCF). Its forests play a major role in carbon removals. In 2018, Austria's land use sector transitioned from removing carbon to emitting it, but the country has been achieving net removals since 2020. To reach its 2030 LULUCF target, additional carbon removals of 879 kt CO_2eq are needed ([54]).

Austria's wide climate protection gaps ([55]) for floods and wildfires call for monitoring. Damages and losses from these risks are projected to rise to at least EUR 3-6 billion in 2030 and EUR 6-12 billion by 2050. A relatively large share of assets remains uninsured against climate hazards. Austria is also vulnerable to climate change-related impacts due to more frequent and extreme weather events like heatwaves and droughts. Adapting to these impacts will require substantial additional precautionary measures, notably on the resilience of forests, biodiversity, infrastructure, construction (including through nature-based solutions), transport, agriculture, (hydro)energy, tourism and human health protection ([56]).

Despite clear improvements in conservation and restoration, the status of many habitats and species has continued to deteriorate. Austria protects 29% of its land. However, only 18% of habitats and nearly 15% of species were in a favourable condition. The largest decline in biodiversity has been reported in agricultural landscapes. At the same time, the common farmland birds index slowly increased from 55 in 2018 to 63 in 2020, which is still below the EU average. More positively, Austria's uptake of green infrastructure in urban and commuting areas is at a good level. Its biodiversity strategy includes targets for increasing grasslands in urban areas, repurposing abandoned buildings and the provision of features that promote biodiversity in newly established green areas. According to European Environmental Agency data for Austria's six main cities, the average tree coverage stood at 36.5% in 2018 (above the EU average of 30.3%).

Graph A6.2: **Changes in livestock density and organic farming**



Livestock unit (LSU)/ha of UAA: it measures the stock of animals (cattle, sheep, goats, equidae, pigs, poultry and rabbits) converted in LSUs per hectare of UAA.
Source: Eurostat

Ammonia emissions from agriculture are still high and additional efforts could help meeting emission reduction targets set under the NEC-Directive. The annual output of the Austrian agricultural sector was worth EUR 7.3 billion ([57]) in 2023. Austria has the largest share of organic farming in the EU - 25.7% of its total utilised agricultural area (UAA) in 2021 (EU average 9.1%). There are stark regional differences in Austria's livestock farming sector, with some areas intensifying production and livestock abandonment occurring in other areas. This situation puts certain ecosystems at risk. Overall, while most EU Member States lowered their livestock density indices between 2010 and 2020, Austria reported a marginal increase from 0.85% to 0.86% ([58]). Intensive animal farming is one of the main causes of emissions of pollutants such as ammonia. The agricultural sector was responsible for 93.1% of total ammonia emissions (EU average: 90.9%). Additional efforts could help meeting emission reduction targets set under the NEC-Directive as described in Austria's updated 2023 National Air Pollution Control Programme

([54]) National LULUCF targets of the Member States in line with Regulation (EU) 2023/839.

([55]) On the climate protection gap, see the annotations to Table A6.1.

([56]) See the Commission's 2023 assessment and recommendation on Austria's progress on climate adaptation.

([57]) Production value at basic price (2015=100).

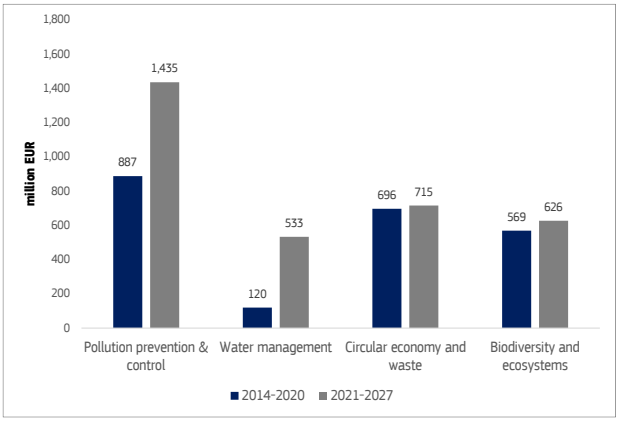
([58]) After a peak of 0.95% in 2016.

(NAPCP). According to the impact assessment for the Soil Monitoring Law ([59]), 26% of Austria's soil could be considered as unhealthy ([60]). Soil erosion affects 68% of cropland, while the loss of organic carbon affects 47% of cropland and grassland. Austria had one of the lowest shares of irrigated land, accounting for 1.4% of its total UAA, most of it located in the north-east of the country. The water abstracted for agricultural purposes accounted for only 0.8% of total water abstraction in 2019, almost double that of the previous year. Austria produced 134 kg of food waste per person in 2021, above the EU average of 131.

Nutrients pollution in Austria's waterbodies is higher than the EU average. According to the latest figures on gross nitrogen balance on agricultural land, Austria has an average surplus of 34.1 kg of nitrogen per hectare per year, but this surplus has been steadily decreasing. The content of nitrate in groundwater decreased over time but still exceeds the EU average of 20.5 mg nitrate/l. Moreover, 7.2% of groundwater monitoring stations showed levels above the maximum of 50 mg nitrate/l over 2016-2019. The gross phosphorus balance has also been decreasing and stands at 1.3 kg/ha according to the latest annual data. Water pollution from pesticides is less concerning in Austria than in other EU countries and no surface monitoring sites were reported to exceed the thresholds set by the Water Framework Directive in 2021.

Air quality in Austria is generally good, with some exceptions. The number of years of life lost due to exposure to pollutants such as $PM_{2.5}$ and NO_2 were below the EU average in 2020, at 362 and 95 years per 100 000 inhabitants respectively. The smog-precursor emission intensity decreased by 32.9% between 2008 and 2021, reaching 0.43 thousand tonnes/EUR 10 (EU average: of 0.86).

Graph A6.3: **Environmental investment gap, annual average**



The numbers are computed by the European Commission based on the latest internal reports, Eurostat, EIB and national data sources.
Source: European Commission

Austria would benefit from investing more in measures to protect biodiversity and address pollution. According to the latest estimates, the overall environmental investment needs for 2021-2027 reach at least EUR 10.4 billion per year, while the financing baseline stands at EUR 7.3 billion. The resulting gap of EUR 3.1 billion is wider than in the previous financing period. There remains an opportunity to increase funding, in particular for pollution prevention and control (EUR 1.4 billion per year) and sustainable water management (EUR 533 million per year). Austria would also benefit from investing in circular economy and waste and biodiversity and ecosystems, where the gaps increased to EUR 715 million and EUR 626 million respectively.

([59]) SWD 417 final of 05.07.2023 - impact assessment for the Directive of the European Parliament and of the Council on Soil Monitoring and Resilience (Soil Monitoring Law), (cfr. pg. 10, pg. 189-190, pg. 835-845).

([60]) However, not all soil degradation processes could be quantified for all land uses. This number simply indicates an order of magnitude.

Table A6.1: **Indicators tracking progress on the European Green Deal from a macroeconomic perspective**

							Target	Distance	
		2005	2019	2020	2021	2022	2030	WEM	WAM
Progress to climate and energy policy targets									
Greenhouse gas emission reductions in effort sharing sectors [1]	Mt CO_{2eq}, %, pp	56,992.0	-12%	-18%	-14%	-19%	-48%	-21	-21
Net greenhouse gas removals from LULUCF [2]	Kt CO2eq	-18 099	2 437	-5 843	-11 076	-4 474	-5,650	n/a	n/a
Share of energy from renewable sources (1) [3]	%	24%	34%	37%	35%	34%	0.57	-	-
Energy efficiency: primary energy consumption [3]	Mtoe	32.7	32.3	29.9	31.6	30.2	24.9		
Energy efficiency: final energy consumption [3]	Mtoe	27.9	28.3	26.1	27.9	26.3	21.612		

							EU-27		Projected
		2018	2019	2020	2021	2022	2021	2022	2030
Green transition: mobility									
Greenhouse gas emissions: road transport	Mt CO2e	-	-	-	21.5	20.3	769.0	786.6	18.8
Share of zero-emission vehicles in new registrations [4]	%	2	2.8	6.4	13.9	15.7	9	12.1	n/a
Number of publicly accessible AC/DC charging points		-	-	8587	11737	17455	299178	446956	n/a
Share of electrified railways	%	71.5%	70.8%	71.2%	71.4%	-	56.1%	-	n/a
Green transition: buildings									
Greenhouse gas emissions: buildings	Mt CO2e	-	-	-	10.1	8.6	537.0	486.7	7.4
Final energy consumption in buildings	2015=100	100.0%	102.4%	103.1%	114.2%	100.6%	104.0%	97.2%	
Climate adaptation									
Climate protection gap [5]	score 1-4	-	-	2.0	1.6	1.5	1.5	1.5	n/a

		2018	2019	2020	2021	2022	2020	2021	2022
State of the environment									
Water | Water exploitation index (WEI+) (1) [6]	% of renewable freshwater	1.9	0.1	-	-	-	3.6	-	-
Circular economy | Material footprint [7]	tonnes per person	23.9	23.5	22.7	24.7	23.5	14.2	14.8	14.9
Pollution | Years of life lost due to air pollution by PM2.5 [8]	per 100.000 inhabitants	591	429	344	362	-	545	584	-
Biodiversity | Habitats in good conservation status [9]	%	18.0					14.7		
Common farmland bird index [10]	2000=100	55	62	63	-	-	78	-	-
Green transition: agri-food sector									
Organic farming	% of total utilised agricultural area	24.08	25.33	25.69	-	-	9.1	-	-
Nitrates in groundwater	mg NO_3/litre	-	-	-	-	-	20.42	-	-
Food waste per capita	Kg per capita			136	134	-	130	131	-
Share of soil in poor health [11]	%					26			41
Soil organic matter in agricultural land [12]	Mt per ha	232	-	-	-	-	7,904	-	-

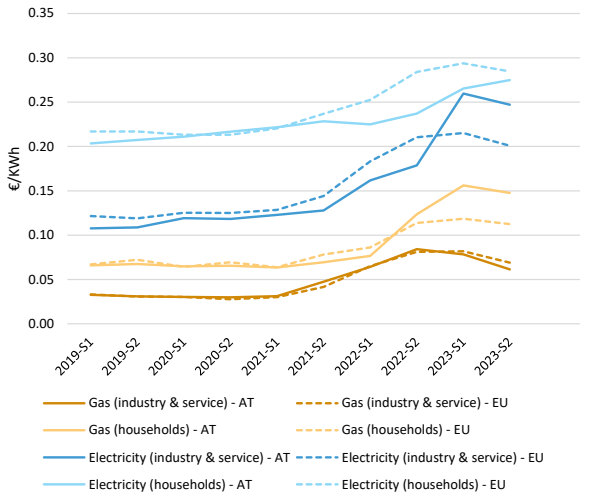
Sources: (1) Member States' emission data for 2019 and 2020 are in global warming potential (GWP) values from the 4th Assessment Report (AR4) of the Intergovernmental Panel on Climate Change (IPCC). Member States' 2005 base year emissions under Regulation (EU) 2018/842, emissions data for 2021 and 2022, and 2030 projections are in GWP values from the 5th Assessment Report (AR5) of the IPCC. 2021 data are based on the final inventory reports, 2022 data are based on approximated inventory reports and European Environmental Agency's calculation of effort sharing emissions. The final data for 2021 and 2022 will be established after a comprehensive review in 2027. The 2030 target is in percentage change of the 2005 base year emissions. Distance to target is the gap between the 2030 target and projected effort sharing emissions with existing measures (WEM) and with additional measures (WAM), in percentage change from the 2005 base year emissions. The measures included for the 2030 emission projections reflect the state of play as reported in Member States' draft updated national energy and climate plans or, if unavailable, as reported by 15 March 2023 as per Regulation 2018/1999. (2) Net removals are expressed in negative figures, net emissions in positive figures. Reported data are from the 2024 greenhouse gas inventory submission. 2030 value of net greenhouse gas removals as in Regulation (EU) 2023/839 – Annex IIa. (3) The 2030 national objectives for renewable energy and energy efficiency are indicative national contributions, in line with Regulation (EU) 2018/1999 (the Governance Regulation), the EU-level 2030 renewable energy target set out in Directive EU/2018/2001 amended by Directive EU/2023/2413 (the revised Renewable Energy Directive) – 42.5% of gross final energy consumption with the aspiration to reach 45% –, and the formula in Annex I to Directive (EU) 2023/1791 (the Energy Efficiency Directive). (4) Passenger battery electric vehicles (BEV) and fuel cell electric vehicles (FCEV). (5) The climate protection gap refers to the share of non-insured economic losses caused by climate-related disasters, based on modelling of the risk from floods, wildfires, windstorms, and the insurance penetration rate. Scale: 0 (no protection gap) –4 (very high gap) (European Insurance and Occupational Pensions Authority, 2022). (6) Total water consumption in renewable freshwater resources available for a territory and period. (7) Material extractions for consumption and investment. (8) Years of potential life lost through premature death due to exposure to particulate matter with a diameter of less than 2.5 micrometres. (9) Share of habitats in good conservation status according to the records submitted under Art. 17 of the Habitats Directive (Directive 92/43/EEC) for 2013-2018. (10) Multi-species index measuring changes in population abundances of farmland bird species. (11) Source: annex 12 of the Commission's proposal for a soil monitoring law, SWD (2023) 417 final. (12) Estimates of organic carbon content in arable land.

This Annex ([61]) sets out Austria's progress and challenges in accelerating the net-zero energy transition while bolstering the EU's competitiveness in the clean energy sector ([62]).

Austria made some steps in implementing reforms to accelerate the deployment of renewables but last year's increase, particularly in solar photovoltaics, is still below the EU average. Austria aims to reduce its current import dependencies through trustful partnerships, but it still imports gas from Russia. It has implemented a series of energy efficiency measures with the support of several EU funds. In clean energy technologies manufacturing, Austria has presence in the solar industry and in the supply chain for battery manufacturing, with great potential for increasing capacity further.

Energy retail prices in gas and electricity have exhibited a mixed evolution throughout 2023 in Austria. In the second half of 2023, the average gas price for households was reduced by 5.5% compared to the beginning of the year but remained 31% above EU average. Regarding average electricity prices, households saw a 3.6 % increase in 2023 but reaching a level still slightly below EU average. For industrial consumers in the second half of 2023, average gas and electricity prices declined by 22% and 5% respectively, compared to the first semester of the year, both remaining below EU average.

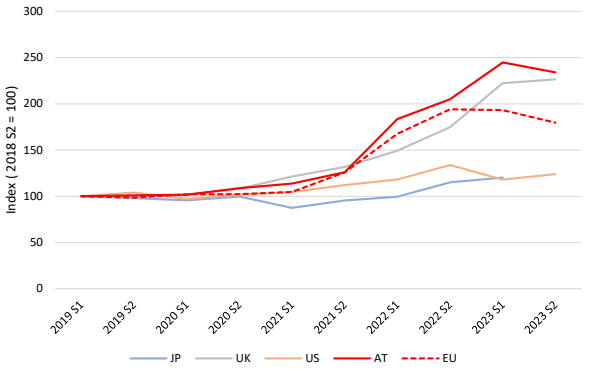
Graph A7.1: **Austria's energy retail prices for households and industry & service**



(1) For industry, consumption bands are I3 for gas and IC for electricity, which refer to medium-sized consumers and provide an insight into affordability
(2) For households, the consumption bands are D2 for gas and DC for electricity
(3) Industry prices are shown without VAT and other recoverable taxes/levies/fees as non-household consumers are usually able to recover VAT and some other taxes
Source: Eurostat

In relative terms, electricity prices for non-household consumers have increased significantly compared to the US and Japan, thus potentially affecting the international competitiveness of energy-intensive industries in Austria.

Graph A7.2: **Trends in electricity prices for non-household consumers (EU and foreign partners)**



(1) For Eurostat data (EU and AT), the band consumption is ID referring to large-sized consumers with an annual consumption of between 2 000 MWh and 20 000 MWh, such as in electricity intensive manufacturing sectors, and gives an insight into international competitiveness
(2) JP = Japan
Source: Eurostat, IEA

([61]) It is complemented by Annex 6 as the European Green Deal focuses on the clean energy transition and by Annex 8 on the action taken to protect the most vulnerable groups, complementing ongoing efforts under the European Green Deal, REPowerEU and European Green Deal Industrial Plan.

([62]) In line with the Green Deal Industrial Plan and the Net-Zero Industry Act

A number of measures to cushion the economic and social impact of high energy prices on consumers and businesses were adopted already in 2022 ([63]), such as the electricity cost brake for private households, granted until December 2024, and cushioning the increased grid loss charges, valid until the end of 2023. The first measure subsidises around 80% of the average consumption of Austrian households and compensates households for the difference between the contract price of electricity, with an upper limit of EUR 0.25/kWh from July 2024 onwards (before EUR 0.4/kWh) and a pre-crisis reference price of EUR 0.10/kWh. There are special regulations for low-income households and households with more than three people. The other budgeted relief measure is the cushioning of grid loss costs (offsetting around 80% of the additional costs in the grid loss fee) which is an additional burden to the consumption-related costs.

Consumer empowerment in the electricity and gas markets in Austria is significant, including the deployment of smart meters. The share of fixed-price contracts held by households decreased for electricity and gas, to 55% and to 50% in 2022, respectively ([64]). This was possibly caused by fewer offers on the market, with unusually high prices and no savings potential for customers in Austria. Likewise, in 2022 switching rates decreased in electricity (to 2.5%) and gas (to about 4%), with switching procedures taking 15 days on average for both carriers. In 2022 Austria had equipped 68% of all consumers with smart meters, with the goal of reaching 80% in 2024. Beginning of 2024, more than 1,000 energy communities are established. ([65])

To ensure energy security of supply, Austria aims to reduce its current import dependencies, in particular on Russian gas, through trustful partnerships, such as increasing import capacity from neighbouring countries like Germany and Italy. Austria still imports gas from Russia (in December 2023 the Russian gas import share was 98%), although volumes were reduced following Russia's invasion of Ukraine (from 100 basis points in February 2022 to 65 in December 2023) ([66]). Dependency fluctuated throughout 2023 based on factors such as low electricity generation from gas during fall due to a high share of renewable energy generation, lower gas consumption and full gas storage facilities. Austria operates 9 underground storage facilities with a total capacity of around 9.16 bcm, more than covering all domestic demand (112%). Austria fulfilled its gas storage obligations last winter, reaching 99.5% by 1 November 2023, and ended the winter season with a storage filled at 73.85% by 1 April 2024. Austria managed to considerably reduce its gas demand between August 2022 and January 2024 by 19%. While in the electricity sector the share of indigenous renewable energy is already higher (75 % for 2022) than in the EU average (41 % for 2022), energy supply as a whole is still largely based on imported fossil fuels (74.5% in 2022).

Renewable installed capacity increased by 6% in 2022, driven by a significant increase in solar, in particular photovoltaics. This is below the EU average increase of 10% and significantly below other Member States with a comparable high share of hydropower in their electricity mix, such as Finland (+26%). Total renewable energy capacity in Austria in 2022 stood at 23 GW ([67]), dominated by 64% of hydropower (15 GW). Total wind capacity in Austria for 2022 was 3.7 GW, 16% out of the country's total renewable energy capacity (an increase of 10% over 2021).

([63]) Strategie Bericht 2024 bis 2027/Budgetbericht 2024 and https://www.diepresse.com/18026067/regierung-halbiert-strompreisbremse

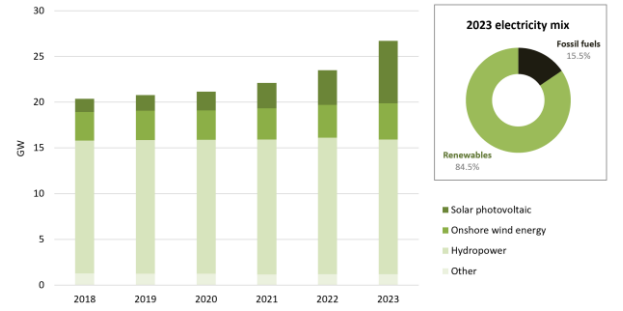
([64]) www.acer.europa.eu/Publications/2023_MMR_Energy_Retail_Consumer_Protection.pdf

([65]) www.klimafonds.gv.at/event/energiegemeinschaften-konferenz-2024/

([66]) energie.gv.at/

([67]) IRENA report 2023

Graph A7.3: **Austria's installed renewable capacity (left) and electricity generation mix (right)**



(1) "Other" includes solid biofuels, renewable municipal waste, liquid biofuels, biogas and geothermal energy
Source: IRENA, Ember

As regards the acceleration of solar deployment, the total installed capacity in 2022 was 3.6 GW ([68]), 15% of total renewable energy capacity (an increase of 27% over 2021). Austria has put in place exceptions regarding permitting for household--size PV installations as well as commercial--size installations up to 200 kW and does not require any permit for microgeneration up to 0.8 kW. Since January 2024, PV installations of up to 35 kWh are exempt from VAT.

Austria made some steps in implementing reforms to accelerate the deployment of renewables. It introduced legislation which streamlines environmental impact assessments and prioritises energy transition projects. Austria plans to introduce a Renewable Energy Expansion Acceleration Act, with further measures to accelerate permit-granting for renewable energy projects. However, the visibility of the project pipeline for renewable energy projects in Austria is only partially clear, as it has not published its long-term schedule for auctions for the next 5 or 3 years and the details of the timing, frequency of auction procedures, expected capacity and budget and eligible technologies are available only for 2024 and 2025.

Austria's relatively high share of renewables in heating and cooling (30.6% in 2022) is mainly related to biomass use, with heat pumps covering a minor share.

Continued efforts for capacity expansion in Austria's cross-border as well as its domestic electricity network remain necessary to 2030 and beyond. Austria expects 18GW of additional renewable energy capacity to be installed by 2030 ([69]), requiring its integration into the electricity transmission and distribution system. There are electricity infrastructure projects in Austria which will be important to implement in an accelerated manner, included in the new list of Projects of Common Interest (PCI) and Projects of Mutual Interest (PMI). These are the Kaunertal Storage Extension Project, interconnections and Austrian internal lines in the Austria-Germany cluster, Interconnector between Würmlach (AT) - Somplago (IT), and the Interconnector between Lienz (AT) - Veneto region (IT). The implementation of the priorities defined in the recently endorsed CESEC Electricity and Renewable Energy Action Plan and the CESEC Action Plan on Gases will be crucial for accelerated infrastructure development and market integration.

Austria demonstrated significant progress in contributing to reaching the 2030 EU targets for energy efficiency. In 2022, Austria had a primary energy consumption decrease of 4.6% compared to 2021, and a 4.8% decrease compared to 2012. It had a final energy consumption decrease of 5.7% compared to 2021, and a 3.3% decrease compared to 2012. In this last year, the best results came from the residential sector, which decreased its final energy consumption by 15.4%, and the worst from the industry sector which increased its final energy consumption by 0.2%.

Austria has implemented a series of energy efficiency measures with the support of several EU funds, including the Recovery and Resilience Facility, focusing on buildings and industry. Under cohesion policy, 25% of the overall funding allocated to Austria covers energy efficiency investment (respectively 22.6% for companies and 2.47% for energy performance of buildings). However, most of these schemes are addressed to companies, such as new equipment, technology development or support for research and demonstration projects, to improve energy efficiency.

([68]) IRENA report Renewable Energy Statistics 2023, the data might differ from the Eurostat data because a different methodology is used to calculate the capacity in AC and DC.

([69]) APG Network Development Plan 2023, https://www.apg.at/en/power-grid/grid-expansion/network-development-plan-2023/

In Austria, most of the schemes on energy efficiency are still grant-based and the use of financial instruments (for example debt financing or tax rebates and exemptions) is still very limited. There is a clear focus on heating-related interventions mostly targeted at businesses, but also with households as beneficiaries.

In relation to buildings, Austria needs to step up its efforts in the residential sector if it is to achieve a meaningful contribution to the 2030 building decarbonisation milestone set in its latest Long Term Renovation Strategy (LTRS). Indeed, residential final energy consumption was lower in 2022 than 2020 but seen in a longer perspective it has increased by 2.6% ([70]).

76% of buildings in Austria were built before 1990, indicating that they were built before any stringent performance requirements were put in place. Measures in the LTRS include regulatory requirements, fiscal and economic incentives, information measures, as well as phasing out the use of coal and oil for heating. In 2022, around 60 000 heat pumps were sold, 57% more than in the previous year, reaching a total stock of around 430 000 installed in the residential sector.

Austria is not reporting any checks on products covered by ecodesign and energy labelling, which raises serious concerns with respect to the compliance levels of the products in question.

In its Hydrogen Strategy ([71]), Austria plans to install 1 GW of electrolyser capacity by 2030. Austria plans a very targeted use of hydrogen and divides it into four uses: feedstock in the chemical industry and the steel industry, in aviation and shipping and as peak load balance in the energy system. A cross-border hydrogen project promoted by Austria has been selected on the first PCI/PMI list: the Italy-Austria-Germany hydrogen corridor is composed of internal hydrogen infrastructure along the TAG, WAG and Penta West pipelines. In addition, the PCI/PMI list includes a 'general corridor' aiming to transmit hydrogen from Ukraine to Slovakia, Czechia, Austria and Germany.

Austria has a significant footprint in the solar industry and in the supply chain for battery manufacturing, with great potential for increasing capacity further. There are at least six manufacturers of PV modules operational in Austria, with an estimated manufacturing capacity close to 1 GW per year. Three of them specialise in flexible photovoltaic modules for building envelopes, devices and vehicles. Austria is also among the leading inverter manufacturers in the EU. On wind, few Austrian companies are cooperating in the production of key wind turbine components such as transformers or main bearings for the global original equipment manufacturers. Regarding energy storage systems, Austria holds a strong position in redox flow batteries, being in the global top three, together with Japan and the US. This sector has great potential for lithium-ion technologies. In Wolfurt, there is a lithium-ion battery producer involved in pioneering energy storage systems utilising recycled lithium-ion EV batteries. The company plans to increase its production capacity to reach 1 GWh annually. Regarding electrolysers, Austria does not have manufacturing capacity per se but was granted in July 2022 EU funding under the framework for Important Projects of Common European Interest for the world's first 1 MW high-temperature solid oxide electrolyser based on metal-supported cells (MSCs).

Austria is a strong innovator with performance at 119.9% of the EU average. While performance is above the average it is increasing at a rate lower than that of the EU average. Austria has very attractive research systems with a rating of 153.5% compared to the EU average. Austria spends relatively high amounts on public R&I investment in energy technologies, e.g. renewable energy technologies, smart solutions for consumers, integrated & flexible energy system, energy efficiency in buildings, energy efficiency in industry, renewable fuels & bioenergy (each between 5-7% of total EU spending). Austria excels specifically in private R&I investment in energy technologies, for example in renewable fuels & bioenergy with EUR 634 million, i.e. 17% of total EU spending in that sector.

([70]) Final energy consumption in households from Eurostat (data-tables of December 2023), climate-corrected by the Joint Research Centre with reference period 2005-2022 (FEC climate-corrected = FEC/ (HDD/HDD reference period)

([71]) Hydrogen Strategy for Austria (2022)

Table A7.1: **Key Energy Indicators**

		Austria				EU			
		2019	2020	2021	2022	2019	2020	2021	2022
ENERGY DEPENDNCE	**Import Dependency [%]**	**71.6%**	**58.4%**	**51.8%**	**74.5%**	**60.5%**	**57.5%**	**55.5%**	**62.5%**
	of Solid fossil fuels	96.7%	97.8%	99.4%	99.9%	43.3%	35.8%	37.3%	45.8%
	of Oil and petroleum products	95.7%	97.5%	90.4%	94.7%	96.7%	96.8%	91.7%	97.7%
	of Natural Gas	122.8%	73.4%	51.0%	149.1%	89.7%	83.6%	83.6%	97.6%
	Dependency from Russian Fossil Fuels [%]								
	of Natural Gas	-	-	-	-	39.7%	41.3%	41.1%	21.0%
	of Crude Oil	4.2%	10.2%	8.1%	1.9%	28.8%	26.7%	26.4%	19.5%
	of Hard Coal	11.3%	12.7%	13.3%	12.0%	43.5%	49.1%	47.4%	21.5%

		2016	2017	2018	2019	2020	2021	2022
DIVERSIFICATION OF GAS SUPPLIES	**Gas Consumption (in bcm)**	**8.7**	**9.4**	**8.9**	**9.3**	**8.8**	**9.3**	**8.2**
	Gas Consumption year-on-year change [%]	4.4%	7.5%	-5.3%	4.4%	-4.9%	5.8%	-12.3%
	Gas Imports - by type (in bcm)	**7.5**	**8.5**	**7.8**	**11.4**	**6.5**	**4.8**	**12.2**
	Gas imports - pipeline	7.5	8.5	7.8	11.4	6.5	4.8	12.2
	Gas imports - LNG	0.0	0.0	0.0	0.0	0.0	0.0	-

		2019	2020	2021	2022	2023
	LNG Terminals - storage capacity m3 LNG					
	Number of LNG Terminals	0	0	0	0	0
	LNG Storage capacity (m3 LNG)	0	0	0	0	0
	Underground Storage					
	Number of storage facilities	9	9	9	9	9
	Technical Capacity (bcm)	8.2	8.4	8.5	8.5	8.7

		2016	2017	2018	2019	2020	2021	2022	2023
ELECTRICITY/ENERGY	**Gross Electricity Production (GWh) (2)**	**68,308**	**71,324**	**68,618**	**74,234**	**72,558**	**70,757**	**69,228**	-
	Combustible Fuels	18,953	21,296	19,900	20,865	18,368	18,678	18,955	-
	Nuclear	0	0	0	0	0	0	0	-
	Hydro	43,008	42,175	41,219	44,204	45,344	42,540	39,221	-
	Wind	5,235	6,572	6,030	7,450	6,792	6,740	7,245	-
	Solar	1,096	1,269	1,455	1,702	2,043	2,783	3,792	-
	Geothermal	0	0	0	0	0	0	0	-
	Other Sources	15	13	13	13	12	16	15	-
	Gross Electricity Production [%]								
	Combustible Fuels	27.7%	29.9%	29.0%	28.1%	25.3%	26.4%	27.4%	-
	Nuclear	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-
	Hydro	63.0%	59.1%	60.1%	59.5%	62.5%	60.1%	56.7%	-
	Wind	7.7%	9.2%	8.8%	10.0%	9.4%	9.5%	10.5%	-
	Solar	1.6%	1.8%	2.1%	2.3%	2.8%	3.9%	5.5%	-
	Geothermal	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-
	Other Sources	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-
	Net Imports of Electricity (GWh)	**7,159**	**6,546**	**8,947**	**3,129**	**2,196**	**7,543**	**8,705**	-
	As a % of electricity available for final consumption	11.1%	10.0%	13.6%	4.7%	3.4%	11.3%	13.2%	-
	Electricity Interconnection [%]	-	**15.3%**	**42.4%**	**38.1%**	**37.6%**	**31.5%**	**31.3%**	**30.3%**
	Share of renewable energy consumption - by sector [%]								
	Electricity	72.5%	71.6%	74.2%	75.1%	78.2%	74.0%	74.7%	-
	Heating/cooling	33.5%	33.7%	34.2%	33.9%	35.0%	33.0%	30.6%	-
	Transport	10.6%	9.7%	9.9%	10.1%	10.3%	9.5%	10.1%	-
	Overall	33.4%	33.1%	33.8%	33.8%	36.5%	34.6%	33.8%	-

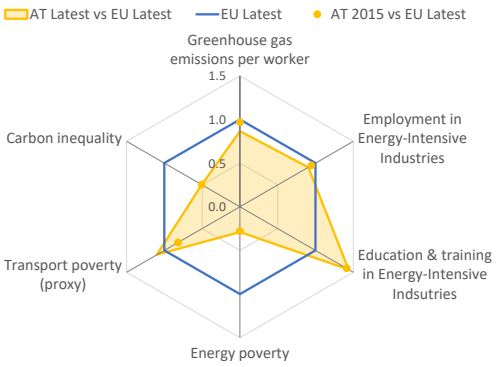
		2019	2020	2021	2022	2023
CLEAN ENERGY	**VC investments in climate tech start-ups and scale-ups (EUR Mln)**	**0.52**	**16.74**	**23.15**	**131.07**	**162.44**
	as a % of total VC investment (3) in Austria start-ups and scale-ups	0.2%	5.3%	2.1%	10.5%	23.5%
	Research & Innovation spending in Energy Union R&i priorites					
	Public R&I (EUR mln)	-	-	224.0	-	-
	Public R&I (% GDP)	-	-	-	-	-
	Private R&I (EUR mln)	-	1,219.5	-	-	-
	Private R&I (% GDP)	-	-	-	-	-

(1) The ranking of the main suppliers is based on the latest available figures (for 2022)
(2) Venture Capital investment includes Venture Capital deals (all stages), Small M&A deals and Private Equity (PE) growth deals (for companies that have previously been part of the portfolio of a VC investment firm or have received Angel or Seed funding).
Source: Eurostat, Gas Infrastructure Europe, JRC elaboration based on PitchBook data (03/2024), JRC SETIS (2024)

This Annex monitors Austria's progress in ensuring a fair transition towards climate neutrality and environmental sustainability, particularly for workers and households in vulnerable situations. The green economy in Austria has gained importance in recent years and its proportion of employment in the environmental goods and services sector is high. Between 2015 and 2021, total jobs in the sector grew by 21% (to around 206 000) (EU: 18.2%), reaching 4.8% of total employment and accounting for a relatively high proportion of total employment as compared to other Member States (EU: 2.7%). Also, between 2015 and 2022, the greenhouse gas emission intensity of Austria's workforce (see Graph A8.1 and Table A8.1) declined from 13.8 to 12.4 tonnes per worker, below the EU average (14.3 tonnes per worker in 2022) ([72]), indicating a positive trend in the green transition. However, skills shortages in key sectors for the green transition are rising. Regarding the implementation of the Council Recommendation of 2022 on ensuring a fair transition towards climate neutrality, challenges remain in the upskilling and reskilling of workers in declining and transforming sectors and the better labour market integration into the green economy of women, older workers, low qualified and people with a migrant background ([73]). Austria's recovery and resilience plan (RRP) outlines crucial reforms and investments for a fair green transition, complementing the territorial just transition plans and actions supported by the European Regional and Development Fund and European Social Fund Plus (ESF+).

Employment in Austria's sectors that are most affected by the green transition is stable. In 2023, employment in Austria's energy-intensive industries ([74]) comprised 3.2% of total employment (EU: 3.5%), a slight decrease from 3.3% in 2015. Employment in mining and quarrying has been stable since 2015 (with around 8 000 workers in 2023). Labour shortages in key transforming sectors are rising. The job vacancy rate in construction (see Graph A8.2), one of the key sectors for the green transition, is higher than the EU average (6.4% vs 3.6% in 2023), in line with the perception of small and medium-sized enterprises (SMEs) in the sector, where 74% reported that skills shortages are holding them back in general business activities ([75]). According to the European Labour Authority (ELA) ([76]), labour shortages were reported in 2023 for a number of occupations that required specific skills or knowledge for the green transition ([77]), including electrical engineering technicians, roofers and plumbers and pipe fitters. At least 25% of ESF+ subsidies for self-employment of young people under 30 are expected to be earmarked for entrepreneurial projects in the green economy.

Graph A8.1: **Fair transition challenges in Austria**



Source: Eurostat, EU Labour Force Survey, EMPL-JRC GD-AMEDI/AMEDI+ and DISCO(H) projects (see Table A8.1).

Upskilling and reskilling in energy-intensive industries slightly increased, but skills shortages persist. In energy-intensive industries, workers' participation in education and training increased from 15.7% in 2015 to 15.6% in 2023, well above the EU average (10.9%). 45% of Austrian SMEs reported that the skills required for greening business activities are becoming more important (EU: 42%) ([75]). If Austria matches its projected contribution to the EU's 2030 renewable energy target, between 3 500 and 4 400

([72]) Workforce-related calculations are based on the EU Labour Force Survey. Note, in the 2023 country report for Austria, such indicators were calculated based on employment statistics in the national accounts. This may result in limited comparability across the two reports.

([73]) The Council Recommendation of 16 June 2022 on ensuring a fair transition towards climate neutrality (2022/C 243/04) covers employment, skills, tax-benefit and social protection systems, essential services and housing.

([74]) Mining and quarrying (NACE B), chemicals (C20), minerals (C23), metals (C24) and automotive (C29)

([75]) Eurobarometer on skills shortages, recruitment, and retention strategies in small and medium-sized enterprises.

([76]) Based on the European Labour Authority 2024 EURES Report on labour shortages and surpluses 2023, i.e., data submitted by the EURES National Coordination Offices.

([77]) Skills and knowledge requirements are based on the European Skills Competences and Occupations (ESCO) taxonomy on skills for the green transition.

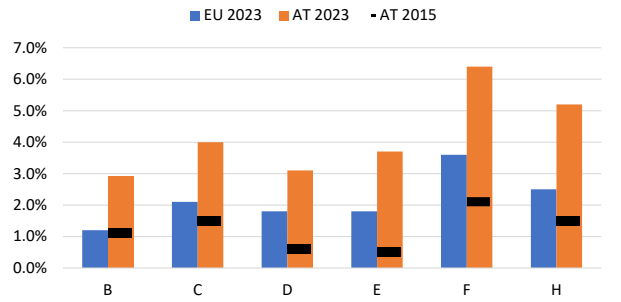
Table A8.1: **Key indicators for a fair transition in Austria**

Indicator	Description	AT 2015	AT	EU
GHG per worker	Greenhouse gas emissions per worker – CO_2 equivalent tonnes	13.8	12.4 (2022)	14.3 (2022)
Employment EII	Employment share in energy-intensive industries, including mining and quarrying (NACE B), chemicals (C20), minerals (C23), metals (C24) and automotive (C29)	3.3%	3.2% (2023)	3.5% (2023)
Education & training EII	Adult participation in education and training (last 4 weeks) in energy-intensive industries	15.4%	15.6% (2023)	10.9% (2023)
Energy poverty	Share of the total population living in a household unable to keep its home adequately warm	2.6%	2.7% (2022)	9.3% (2022)
Transport poverty (proxy)	Estimated share of the AROP population that spends over 6% of expenditure on fuels for personal transport	30.5%	40.8% (2023)	37.1% (2023)
Carbon inequality	Ratio between the consumption footprint of the top 20% vs bottom 20% of the income distribution	1.4	1.4 (2021)	2.7 (2021)

Source: Eurostat (env_ac_ainah_r2, lfsa_egan2d, ilc_mdes01), EU Labour Force Survey (break in time series in 2021), EMPL-JRC GD-AMEDI/AMEDI+ and DISCO(H) projects.

additional skilled workers will be needed for the deployment of wind and solar energy, which may require an investment in skills of EUR 45.5-56.8 million ([78]). To address this challenge, specific investments under the RRP and the Just Transition Mechanism provide training for reskilling workers in regions affected by the transition, together with a broader training offer at national level and flexibility mechanisms to encourage in-company training. In Austria, approximately 6% of ESF+ funding is helping increase green skills and jobs. For instance, the 'CORA' project provides computer training for women to improve the skills needed for green related jobs and to meet the demands of the labour market.

Graph A8.2: **Job vacancy rate in transforming sectors and mining and quarrying**



B - Mining and quarrying
C - Manufacturing
D - Electricity, gas, steam and air conditioning supply
E - Water supply; sewerage, waste management and remediation activities
F - Construction
H - Transportation and storage
Source: Eurostat jvs_a_rate_r2

Energy poverty indicators have worsened slightly in Austria following the spike in energy prices but remain well below the EU average. The share of the population unable to keep their homes adequately warm decreased from 2.6% in 2015 to 1.7% in 2021. However, it rose again to 2.7% in 2022 on the back of energy price increases due to supply constraints caused by the COVID-19 pandemic and Russia's war of aggression against Ukraine, despite the emergency measures implemented in Austria. Nonetheless, it remained well below the EU average (9.3%) ([79]). In particular, 4.8% of the population at risk of poverty (AROP) (EU: 20.1%) and 1.2% of lower middle-income households (EU: 11.6%) were unable to keep their homes warm in 2022. On the other hand, in January 2023, 40.8% of the population at risk of poverty spent a considerable proportion of their budget (more than 6%) on private transport fuels (EU: 37.1%) ([80]).

Despite being below the EU average, environmental inequalities remain an issue in Austria. In 2022, the consumption footprint of the 20% of the population with the highest income was 1.4 times higher than the footprint of the poorest 20% (EU: 1.8) ([81]). For both groups, the consumption footprint is highest for food and housing. In addition, while the average levels of air pollution in 2021 stood below the EU average (9.9 vs 11.4 µg/m3 PM2.5), 53% of the population still live in regions exposed to critical levels of air pollution ([82]). This has led to a significant impact on health, affecting vulnerable groups in

([78]) EMPL-JRC AMEDI project.

([79]) Energy poverty is a multi-dimensional concept. The indicator used focuses on an outcome of energy poverty. Further indicators are available at the Energy Poverty Advisory Hub.

([80]) Affordability of private transport fuels is one key dimension of transport poverty. The indicator has been developed in the context of the EMPL-JRC GD-AMEDI/AMEDI+ projects. Methodology explained in Economic and distributional effects of higher energy prices on households in the EU.

([81]) Developed in the context of the EMPL-JRC DISCO(H) project. Methodology explained in Joint Research Centre, 2024. Carbon and environmental footprint inequality of household consumption in the EU. JRC137520. The EU average refers to EU27 without Italy (household income data not available for IT in the HBS)

([82]) Two times higher than the recommendations in the WHO Air Quality Guidelines (annual exposure of 5µg/m^3).

particular, and around 3 200 premature deaths annually ([83]).

Austria is progressing well in implementing policies for a fair transition towards climate neutrality. It is implementing measures that aim to provide people with relevant knowledge to support their employment in the green economy and to ensure quality employment for a fair and green transition. However, green jobs in Austria are dominated by men and a gender pay-gap still exists. Further efforts are required to improve women's participation in the context of the fair transition, e.g. in providing quality and accessible care services for children and older people who need long-term care. Austria could benefit from further analysis to assess the creation of green jobs thanks to those measures that target upskilling and reskilling for smooth labour market transitions ([84]).

([83]) EEA- Air Quality Health Risk Assessment

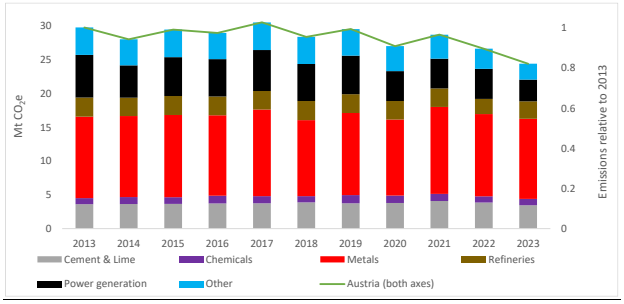
([84]) Based on the monitoring review of the Council Recommendation on ensuring a fair transition towards climate neutrality, which took place in October 2023.

The green transition of industry and the built environment, in particular decarbonisation, resource efficiency and circularity, is essential to boost Austria's competitiveness ([85]). In this regard, the priority for Austria is the use of circular materials and business models in industry and construction.

Austria would benefit from boosting its circular economy transition to achieve the EU Circular Economy Action Plan goals due to its high impact economy. The material footprint in 2022 showed an increasing trend and remained significantly above the EU average, 23.5 versus 14.8 tonnes per capita. The total waste generation increased between 2010 and 2022, when Austria produced 7.7 tonnes of waste per capita, above the EU average. In 2022, Austria adopted a comprehensive circular economy strategy to address these challenges and reduce its material footprint and circular material use rate, including a 25% reduction of the domestic material footprint by 2030. Full implementation of its circular economy strategy will be key to reap the benefits and achieve the ambitious objectives set.

Since 2013, greenhouse gas emissions covered by the EU emissions trading system (ETS) in Austria ([86]) have declined by 18% ([87]). In 2023, only 13% of greenhouse gases emitted by Austria's ETS installations came from power generation, significantly below the EU average (57%). Of the total emissions from all industry sectors, the metals industry emitted over half (56%), cement and lime production 16%, other industries 11%, refineries 12% and chemicals 4%. Between 2019 and 2023, the power sector registered a higher emissions reduction (44%) than the industry sectors (11%), leading to an overall reduction of 17%. Since 2013, greenhouse gas emissions have declined by 49% in power generation, but they have decreased by only 10% in the other ETS sectors, due to adverse trends in chemicals and cement production and stubbornly high emissions in the metals sector.

Graph A9.1: **ETS emissions by sector since 2013**



Source: European Commission

The Austrian industry is progressing in making more efficient use of resources, but it remains more exposed to supply chain disruptions than other Member States. The circular material use rate increased between 2017 and 2022, reaching 13.8%, surpassing the EU average. Material import dependence decreased between 2017 and 2022 – from 43.1% to 40.1% of materials used – but was still almost twice the EU average of 22.4%. By contrast, resource productivity increased, reaching 2.50 purchasing power standards per kilogram (PPS/kg) in 2022, versus 2.11 PPS/kg in 2017. Water abstraction for manufacturing purposes accounted for 49.8% of total water abstracted in 2018, making manufacturing the first sector in Austria in terms of water intake. Austria is among the EU's leaders in sustainable innovation. On the 2022 Eco-Innovation Scoreboard, Austria ranked 3rd among EU Member States. Furthermore, as of September 2023, the country totalled 264 awarded EU Ecolabel licences and 982 products with the EU Ecolabel, higher than in previous years. Austria ranked 4th in terms of EU Ecolabel licences.

Austria is among the EU's top performers in waste management, but municipal waste keeps growing. With a municipal waste recycling rate of 62.5% in 2021, Austria achieved the EU target of 50% recycling by 2020 and is on track to meet the 2025 target for recycling and the 2035 target for landfilling. However, the recycling rate of plastic packaging is below the EU average – 30.7% versus 39.7% – putting Austria at risk of missing the 2025 material-specific target. However, the Austrian recovery and resilience plan envisages investments in constructing new and

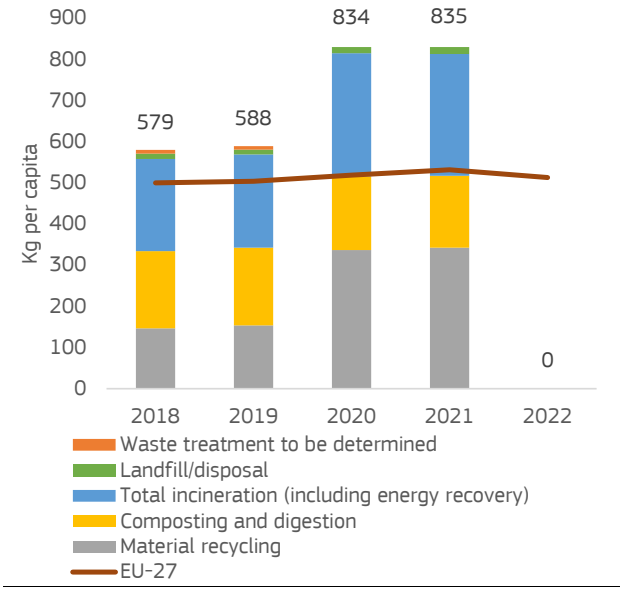
([85]) See also Annexes 6, 7 and 12.

([86]) This analysis excludes air travel. For more details and the data sources, see Weitzel, M; van der Vorst, C. (2024), Uneven progress in reducing emissions in the EU ETS, JRC Science for policy brief, JRC138215, Joint Research Centre.

([87]) In 2013-2022, greenhouse gas emissions from Austria's ETS installations oscillated between 27 and 30.5 million tonnes of CO_2 equivalent.

retrofitting existing plastic waste sorting facilities to increase the amount of recycled material.

Graph A9.2: **Treatment of municipal waste**



Source: Eurostat

There is still room to lower industry's pollution. Austria's industry impacts air quality less than in other Member States. In 2020, the grams of PM2.5 and PM10 emitted per economic output (EUR'10) ([88]) were equal to 0.02 and 0.04, respectively, versus an EU average of 0.07 and 0.1. In 2010-2021, Austria's industrial sector decreased its emissions of main pollutants into the air and water, and the country ranked among the top 5 countries for reduction of air emissions of CO_2 and heavy metals (cadmium, mercury, and lead). However, an opposite trend was reported for nitrogen pollution into water, which has modestly increased over time. There is room to improve Austria's hazardous waste treatment. In 2020, the country produced 144 kg of hazardous waste per capita and only 31.3% of it was treated.

The built environment system continues to exacerbate the depletion of resources, despite recent improvements. Austria's residential floor area increased from 62.4 m^2 in 2018 to 63.5 m^2 in 2020, above the EU average of 54.4 m^2 per capita. The non-residential floor area in 2020 was also above the EU average. Between 2006 and 2012, Austria had a relatively low share of land recycling and densification, 7% versus an EU average of 13.5%. It is at risk of not achieving the 8th Environment Action Programme objective of managing land sustainably and reaching no net land take by 2050. To tackle this issue, Austria agreed to develop a national soil protection strategy with the headline target of limiting net land use to 2.5 ha by 2030. Adoption of this reform by 2022 was included in the recovery and resilience plan but is still pending.

Austria is on track to meet the Waste Framework Directive's targets for the construction sector, but waste generation per capita is among the highest in the EU. Waste generated from construction and demolition activities almost since 2010, reaching 11.5 million tonnes. The proportion of backfilling slightly increased from 48% in 2018 to 50% in 2020. Austria's recovery rate has decreased and stands at 84% in 2021. Successful pilot projects have been developed, such as Baukarussell, which promotes reuse in buildings at large scale.

Table A9.1: **Circularity indicators**

	2018	2019	2020	2021	2022	2023	EU-27	Latest year
Industry								
Resource productivity (purchasing power standard (PPS) per kilogram)	2.2	2.2	2.1	2.2	2.5	-	2.5	2022
Circular material use rate (%)	11.9	11.6	11.5	12.8	13.8	-	11.5	2022
Eco-innovation index (2013=100)	153.1	156.5	159.6	157.2	173.9	-	121.5	2022
Recycling of plastic packaging (%)	31.9	30.8	31.6	30.7	-	-	40.7	2021
Cost of air emissions from industry (EUR bn)	6.7	4.9	4.0	4.3	-	-	352.7	2021
Built environment								
Recovery rate from construction and demolition waste (%)	90.0	-	91.0	84.4	-	-	89.0	2020
Soil sealing index (base year = 2006)	102.9	-	-	-	-	-	103.4	2018
Non-residential floor area (m^2 per capita)	21.5	21.6	21.8	-	-	-	18.0	2020
Waste backfilled (%)	4.6	-	5.1	-	3.7	-	9.9	2020

Source: Eurostat, European Environment Agency

([88]) In 2010 prices.

Digital transformation is key to ensuring a resilient and competitive economy. In line with the Digital Decade policy programme, and in particular with its targets for digital transformation by 2030, this Annex describes Austria's performance on digital skills, digital infrastructure/connectivity and the digitalisation of businesses and public services. Where relevant, it makes reference to progress on implementing the recovery and resilience plan (RRP). Austria allocates 36% of its total Recovery and Resilience Facility budget to digital (EUR 1.34 billion) ([89]). Under cohesion policy, an additional EUR 80 million (7% of the country's total cohesion policy funding) is allocated to the country's digital transformation ([90]).

The Digital Decade policy programme sets out a pathway for the EU's successful digital transformation by 2030. Austria's national roadmap outlines the actions it intends to take to reach the objectives and targets at national level. The first report on the state of the Digital Decade highlighted the need to accelerate and deepen the collective efforts to reach the EU-wide targets and objectives ([91]). Through this, a digitally skilled population increases the development and adoption of digital technologies and leads to productivity gains and new business models. It also leads to higher inclusion and participation in an environment increasingly shaped by the digital transformation ([92]). Digital technologies, infrastructure and tools all play a role in addressing the current structural challenges, including strategic dependence in various areas, cybersecurity and climate change.

([89]) The share of financial allocations that contribute to digital objectives has been calculated using Annex VII to the Recovery and Resilience Facility Regulation.

([90]) This amount includes all investment specifically aimed at or substantially contributing to digital transformation in the 2021-2027 cohesion policy programming period. The source funds are the European Regional Development Fund, the Cohesion Fund, the European Social Fund Plus, and the Just Transition Fund.

([91]) European Commission (2023): Report on the state of the Digital Decade 2023, 2023 Report on the state of the Digital Decade | Shaping Europe's digital future (europa.eu).

([92]) See for example OECD (2019): OECD Economic Outlook, Digitalisation and productivity: A story of complementarities, OECD Economic Outlook, Volume 2019 Issue 1 | OECD iLibrary (oecd-ilibrary.org) and OECD (2019): Going Digital: Shaping Policies, Improving Lives – Summary, https://www.oecd.org/digital/going-digital-synthesis-summary.pdf.

The lack of information and communication technology (ICT) specialists is a key challenge for Austria in the area of digital skills. The percentage of the population with at least basic digital skills is well above the EU average. While the share of ICT specialists in employment (5.3%) is above the EU average (4.8%), the lack of digital experts is a key challenge: the share of enterprises reporting hard-to-fill vacancies for jobs requiring ICT specialist skills was well above the EU average in 2023 ([93]).

On infrastructure, Austria's very high capacity network (VHCN) coverage is below the EU average but good for 5G. VHCN coverage stood at 68% in 2023, in good progression from 2022 but still below the EU average (79%). On the contrary, 5G is well developed with 96% of populated areas covered.

Austria's performance on the digitalisation of businesses is mixed. The percentage of SMEs with at least a basic level of digital intensity is equal to the EU average. One key challenge is that Austrian companies are not yet making full use of all available digital technologies. For example, the use of artificial intelligence among Austrian companies is slightly above the EU average, but the use of cloud services and data analytics is below the EU average. This is consistent with the new indicator 'AI or cloud or data analytics', which combines the three indicators on the use of technologies into a single number, and shows a value that is 8 percentage points below the EU average. Several RRP measures to improve the take-up of digital technologies in Austrian enterprises have been launched, e.g. to provide advisory services and investment for concrete digitalisation projects. In 2022, 3.4% of enterprises in Austria reported ICT service outage due to cyberattacks (e.g. ransomware attacks, denial of service attacks). Over the same year, 18.6% of enterprises developed or reviewed their ICT security policy within the previous 12 months.

Austria performs around the EU average on the digitalisation of public services for citizens and businesses. The country has traditionally been a frontrunner in e-government services, with a relatively high number of

([93]) Source: Eurostat – European Union Survey on ICT Usage and e-Commerce in Enterprises.

e-government users. On the supply side, Austria scores slightly above the EU average in providing digital public services to citizens and slightly below in providing digital public services to businesses. Austria's Business Service Portal Act has introduced the 'once only' principle. The country has also published its Digitalisation Fund Act, which aims to accelerate the digitalisation of the Austrian federal administration. The 'ID Austria' electronic identification scheme has been fully operational since April 2023. Every Austrian citizen receives a digital ID automatically with their application for a passport. 'ID Austria' will provide further solutions (e.g. digital registration certificate) including private sector offers and is rolling out the digital driving licence. As a notified scheme under the eIDAS (electronic identification, authentication and trust services) Regulation, 'ID Austria' also provides the underlying basis for the good performance on access to electronic health records. Austria's score is 88, compared to an EU average score of 79.

Table A10.1:**Key Digital Decade targets monitored by the Digital Economy and Society Index indicators**

	Austria			EU	Digital Decade target by 2030 (EU)
	2022	2023	2024	2024	
Digital skills					
At least basic digital skills	**63%**	**63%**	**65%**	**56%**	**80%**
% individuals	2021	2021	2023	2023	2030
ICT specialists ([1])	**4.5%**	**5.0%**	**5.3%**	**4.8%**	**20 million**
% individuals in employment aged 15-74	2021	2022	2023	2023	2030
Digital infrastructure/connectivity					
Fixed very high capacity network (VHCN) coverage	**45%**	**55%**	**68%**	**79%**	**100%**
% households	2021	2022	2023	2023	2030
Fibre to the premises (FTTP) coverage ([2])	**27%**	**37%**	**41%**	**64%**	**-**
% households	2021	2022	2023	2023	
Overall 5G coverage	**77%**	**92%**	**96%**	**89%**	**100%**
% populated areas	2021	2022	2023	2023	2030
Digitalisation of businesses					
SMEs with at least a basic level of digital intensity	**64%**	**NA**	**58%**	**58%**	**90%**
% SMEs	2021		2023	2023	2030
Data analytics	**NA**	**NA**	**24%**	**33%**	**-**
% enterprises			2023	2023	
Cloud	**29%**	**29%**	**36%**	**39%**	**-**
% enterprises	2021	2021	2023	2023	
Artificial intelligence	**9%**	**9%**	**11%**	**8%**	**-**
% enterprises	2021	2021	2023	2023	
AI or cloud or data analytics ([3])	**NA**	**NA**	**47%**	**55%**	**75%**
% enterprises			2023	2023	2030
Digitalisation of public services					
Digital public services for citizens	**76**	**78**	**81**	**79**	**100**
Score (0 to 100)	2021	2022	2023	2023	2030
Digital public services for businesses	**81**	**83**	**83**	**85**	**100**
Score (0 to 100)	2021	2022	2023	2023	2030
Access to e-health records	**NA**	**88**	**88**	**79**	**100**
Score (0 to 100)		2022	2023	2023	2030

(1) The 20 million target represents about 10% of total employment.
(2) The fibre to the premises coverage indicator is included separately as its evolution will also be monitored separately and taken into consideration when interpreting VHCN coverage data in the Digital Decade.
(3) At least 75% of EU enterprises have taken up one or more of the following, in line with their business operations: (i) cloud computing services; (ii) big data; (iii) artificial intelligence.

Source: Digital Economy and Society Index

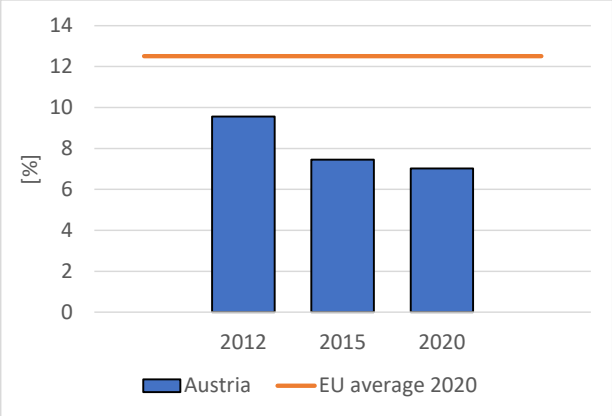
This Annex provides a general overview of the performance of Austria's research and innovation system, which is essential for delivering the twin transition and ensuring long-term competitiveness.

Austria is a 'strong innovator', with its performance increasing albeit at a lower rate than the EU's. According to the 2023 edition of the European Innovation Scoreboard ([94]), the country's performance stands at 119.5% of the EU average and is above the average of the strong innovators (111.6%). However, its performance lead over the EU is shrinking.

Austria's R&D intensity ([95]) has continuously increased over the last decade and ranked third in the EU in 2022 (at 3.20%). This favourable trend is evident in both public R&I intensity (0.98% in 2022 against 0.85% in 2010) and business R&I intensity (2.2% in 2022 against 1.87% in 2010). R&D tax credits have increased steadily in Austria over time and are seen as a strong incentive for R&D activities by Austrian companies ([96]).

The high level of R&D investments does not, however, fully translate into innovation outcomes when compared to peer countries, especially when it comes to business creation, early-stage innovation and growth in the high-tech sector. Austria produces fewer innovation outputs relative to its level of innovation investments ([97]). This has an impact on business dynamism: only 7.02% of Austrians were employed in fast-growing enterprises in 2020, against an EU average of 12.51%. Only 4% of Austrian SMEs qualified as high growth, below the 10% EU average ([98]). With its research, technology and innovation (RTI) strategy for 2030 Austria aims to become an international innovation leader and has set itself the goal of generating '100% more economically successful academic spin-offs'. Since then, the valorisation of research results for the benefit of the economy and society, in particular through business start-ups by students and researchers, has increasingly been the focus of science, business and research policy ([99]).

Graph A11.1: **Employment share of high growth enterprises measured in employment (%)**



Source: Eurostat

The relatively small size of markets for risk capital, which includes venture, growth and equity capital, is a key reason behind the low level of business dynamism. For years the risk capital intensity of Austria has remained below international standards, leading to limited scalability for certain Austrian start-ups. These start-ups either do not expand or struggle to do so within Austria, often relying on foreign risk capital. Consequently, this situation may contribute to the migration of start-ups ([100]). Venture capital intensity as % of GDP has increased compared to previous years (0.023 in 2020, 0.08 in 2022) but is still below the EU average (0.085) ([101]). In the economic survey of the Austrian economy from 2021, the OECD called for improvements in the effectiveness of start-up and growth financing instruments, including by avoiding complexity,

([94]) 2023 European Innovation Scoreboard (EIS), country profile: Austria https://research-and-innovation.ec.europa.eu/statistics/performance-indicators/european-innovation-scoreboard_en: The EIS provides a comparative analysis of innovation performance in EU countries, including the relative strengths and weaknesses of their national innovation systems (also compared to the EU average).

([95]) Defined as gross domestic expenditure on R&D as a percentage of GDP.

([96]) rd-tax-stats-austria.pdf (oecd.org).

([97]) https://www.wipo.int/edocs/pubdocs/en/wipo-pub-2000-2023-en-main-report-global-innovation-index-2023-16th-edition.pdf

([98])) https://ec.europa.eu/docsroom/documents/54957

([99]) Innovation (bmaw.gv.at).

([100]) https://www.rat-fte.at/archive/files/rat-fte-pdf/RFTE-TB2023.pdf

([101]) Data used from Invest Europe (May 2023) using a 3-year moving average to reduce volatility.

Table A11.1:**Key innovation indicators**

Austria	2010	2015	2020	2021	2022	EU average (1)
Key indicators						
R&D intensity (GERD as % of GDP)	2.73	3.05	3.2	3.26	*3.2*	2.24
Public expenditure on R&D as % of GDP	0.85	0.86	0.96	1	0.98	0.73
Business enterprise expenditure on R&D (BERD) as % of GDP	1.87	2.18	2.23	2.25	2.2	1.48
Quality of the R&I system						
Scientific publications of the country within the top 10% most cited publications worldwide as % of total publications of the country	11	11	10.24	:	:	9.6
Patent Cooperation Treaty patent applications per billion GDP (in PPS)	5.3	5	4.77	:	:	3.4
Academia-business cooperation						
Public-private scientific co-publications as % of total publications	12.6	13.6	14.9	15.6	15.6	7.6
Public expenditure on R&D financed by business enterprise (national) as % of GDP	:	0.046	:	0.063	:	0.054
Human capital and skills availability						
New graduates in science & engineering per thousand pop. aged 25-34	15.5	18.3	19.4	19.2	:	16.9
Public support for business enterprise expenditure on R&D (BERD)						
Total public sector support for BERD as % of GDP	:	0.288	:	0.34	:	0.204
R&D tax incentives: foregone revenues as % of GDP	0.111	0.146	0.274	0.22	:	0.104
Green innovation						
Share of environment-related patents in total patent applications filed under Patent Cooperation Treaty (%)	17.4	13.8	17.9	:	:	14.7
Finance for innovation and economic renewal						
Venture capital (market statistics) as % of GDP	0.02	0.023	0.023	0.075	0.08	0.085
Employment share of high growth enterprises measured in employment (%)	:	7.45	7.02	:	:	12.51

(1) EU average for the last available year or the year with the largest number of country data.
Source: Eurostat, OECD, DG JRC, Science-Metrix (Scopus database and EPO's Patent Statistical Database), Invest EU

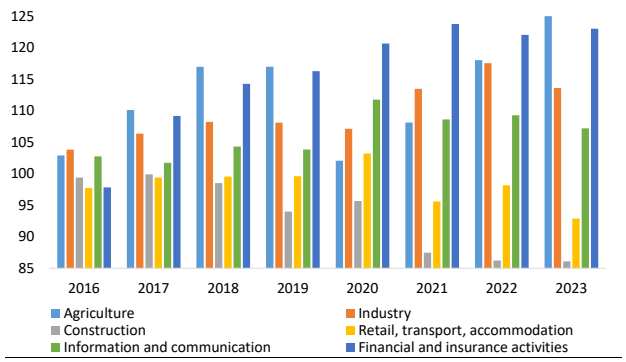
scaling up later-stage funding and improving conditions for institutional investors to invest in venture capital ([102]). The aim of the newly introduced initiative 'Startup Invest' is to increase the risk capital for Austrian technology start-ups with high scaling potential using the experience of successful investors ([103]).

([102])https://www.oecd-ilibrary.org/docserver/eaf9ec79-en.pdf?expires=1701362724&id=id&accname=oid031827&checksum=0A5F416A4D61661199C194BC5A66FC29

([103])https://www.aws.at/aws-start-up-invest-boosting-scaling-potentials/

Austrian competitiveness shows a declining trend. According to the IMD World Competitiveness Centre, Austria ranked 24th in 2023, down 4 places since last year and 8 places since 2020 ([104]). The report shows that government efficiency (especially tax policy and reform of the pension and healthcare system) is the biggest challenge, while infrastructure is perceived as the main strength in Austria. The Competitiveness Radar developed by the Austrian Institute of Economic Research (WIFO) also shows the same trend, with the country lagging behind the top third of comparable EU countries due mainly to low indicators for employment and income distribution ([105]). Moreover, nominal unit labour costs, which are rising due to high inflation, and continued energy imports dependency affect Austria's cost competitiveness position. While R&D expenditure is high, well above the EU average, unfavourable demographic developments lead to declining labour force, and economic growth will be constrained. Productivity growth, investment in infrastructure, technology and human capital will therefore be key to boosting Austria's economic performance.

Graph A12.1: **Real labour productivity per hour worked at industry level (Index, 2015=100)**



Source: Eurostat

Productivity grew slowly in recent years but remains above the EU average. Labour productivity (in terms of GDP per hour worked) reached 119% of the EU aggregate in 2023 (in purchasing power standards). In annual terms, labour productivity decreased by 1.7% in 2023 and the average growth in the last decade was only 0.6%, in line with other EU peer countries. However, there are large differences in productivity by sector (see Graph A12.1). While construction, retail and accommodation services (badly hit during the pandemic) ([106]) show a declining trend, financial services and manufacturing have productivity growth rates above the EU average. Labour productivity in industry decreased by 3.6% per person and by 3.3% per hour in 2023, clearly below the EU averages. There were similar trends in total factor productivity, which has been stagnating since 2015 with average growth of 0.3%, in line with other advanced EU economies. According to the Austrian Productivity Board, the weak growth in labour and total factor productivity is due to a slowdown in productivity growth within sectors and firms and not to the shift in the share of value added between sectors or companies ([107]).

High levels of investment and corresponding high capital intensity are important factors in Austria's growth. In 2022, the investment ratio was among the highest in the EU, reaching 25.3% of GDP (business investment was 15.7%, two percentual points above the EU average). However, aggregate investment is stagnating, with significant drops in the construction sector (largely driven by residential buildings), mainly due to high uncertainty and increasing financing costs. According to the EIB Investment Survey, the main barriers to investment are the availability of skilled staff (91% of respondents against the 81% EU average), energy costs (83%) and uncertainty about the future (78%) ([108]).

The Austrian economy is highly integrated into global supply chains, particularly with Germany and Eastern European countries. Between 2008 and 2020, the foreign content of Austria's exports is estimated to have increased from 27.4% to 30.1%, above the OECD average of 27.6%. By industry, basic metals and motor vehicles are the most integrated.

([104])IMD World Competitiveness Ranking 2023.

([105])The WIFO Radar of Competitiveness for the Austrian Economy 2023, WIFO-Monatsberichte, 2024.

([106])It is important to highlight the evolution of tourism, with a GDP contribution that fell to 2.7% in 2021, down from 5.3% in 2019 due to the pandemic. However, the sector seems to have come out of the crisis in 2023, with overnight stays and a winter season that already reached pre-crisis levels of 2019 (Statistics Austria, 2024).

([107])Austrian Productivity Board. Productivity report 2023: Austria's sustainable competitiveness.

([108])EIB Investment Survey – European Union Overview, 2023.

Material shortages are now back to pre-pandemic levels, in line with global trends. In the most recent Business and Consumer Survey ([109]), only 13.3% of industrial companies still viewed the lack of materials as the most important obstacle for production (see Table A12.1). Supply chain shortages, however, continue to persist in some sectors, such as the automotive industry or machinery production (20% of all automotive firms and 16% of mechanical engineering firms stated that material shortages were the most serious impediment in the fourth quarter of 2023).

Austria is a net importer of energy sources and raw materials, and energy-intensive industries and the transport sector are particularly affected. Some risks stem from continued imports of natural gas from Russia, which were still around 60% in 2023. Austria is highly dependent on imports of raw materials (only wolfram and graphite are produced and processed in Austria). The metalworking industry and electrical industry are particularly dependent on raw materials. The Master Plan for Raw Materials 2030, published in December 2021, is in line with the objectives set in the Critical Raw Materials Act ([110]). Its main objectives are to secure the supply of primary and secondary mineral raw materials in Austria and strengthen supply chains, innovation and the circular economy.

Business financing in Austria is heavily concentrated in bank loans, while equity financing is low by international standards. The rise in interest rates has had a major impact on the financing costs of corporate loans. According to the Austrian Central Bank, the average interest rate for corporate loans rose from 1.7% in June 2022 to 5.2% in September 2023. Increasing borrowing costs in connection with existing economic and geopolitical uncertainties therefore drastically reduced demand for corporate loans. After corporate loans growth reached 12.1% in August 2022 (the highest level in the last 25 years), the annual growth rate steadily decreased to 4.4% in September 2023. However, only 3.2% of businesses were affected by credit constraints in 2022, the lowest rate in the EU.

Late payments have been increasing, in line with the EU average. On late payments, for 53% of Austrian companies it is increasingly difficult to agree on fair payment terms. The payment gap increased to 17 days in B2B operations in 2023 (up from 14 days in 2022) and 15 days with the public sector (up from 14 days the previous year), in line with EU averages (see Table A12.1). The share of SMEs experiencing late payments in the last 6 months has also increased. Austrian businesses are clearly worried about the impact of inflation on the economy and strongly believe that the biggest challenge to payment behaviour is rising inflation (70%, compared to the EU average of 59%), followed by regulation and compliance (67% of Austrian companies compared to the EU average of 54%) ([111]). Furthermore, amid lower household and corporate indebtedness, the consolidated non-performing loan (NPL) ratio remained at 2%. In mid-2023, the NPL ratios of corporate and household loans came to 2.7% and 2.2% respectively ([112]).

Business insolvencies increased following the end of COVID extraordinary measures. According to the Austrian Central Bank, business insolvencies increased in July 2023 compared to July 2019 ([113]). This was caused by the phasing out of generous and very unspecific support schemes for businesses after COVID, which led to a marked decrease in insolvencies and an increase in interest rates with a more restrictive credit policy by banks.

Austria is experiencing a decline in its business dynamism. Enterprise birth and death rates are among the lowest in Europe ([114]). The

([109])Business and Consumer Survey, European Commission, 2023.

([110])COM(2023) 160 – Proposal for a Regulation of the European Parliament and of the Council establishing a framework for ensuring a secure and sustainable supply of critical raw materials.

([111])European Payment Report 2023, Intrum, 2023.

([112])Oesterreichische National Bank, Financial Stability Report 46, 2023.

([113])Oesterreichische National Bank, Financial Stability Report 46, 2023.

([114])Enterprise Demography in the EU in 2021, Business Demography Statistics 2023, Eurostat. The latest data from Statistics Austria shows that the registration of legal units recorded in 2023 was 7% lower than in 2022. Although they are not equivalent to enterprise births, registrations are an important early indicator of economic development.

share of start-ups and young enterprises is declining, having a negative impact on productivity (while the share of young enterprises was 5.4% in 2013, it fell to 3.8% in 2020, below the EU average). The share of high-growth enterprises is also significantly below the EU average (in 2021, 8.21% in the number of enterprises and 7.29% in the number of employees compared to 9.18% and 12.40% respectively in the EU). The introduction of a new capital company form for start-ups ('FlexKap') in January 2024, included in the Austrian recovery and resilience plan, could make the Austrian market more attractive.

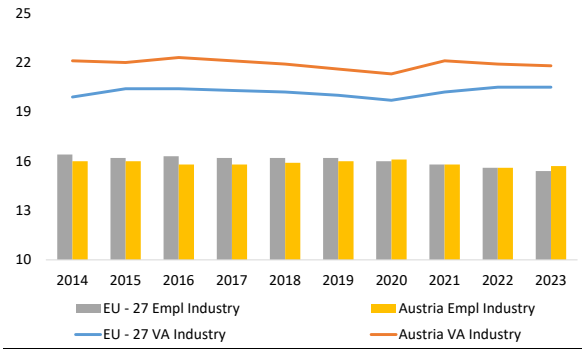
The limited dynamism of the business sector and supply of private risk capital hinder innovative companies and technology diffusion. Supply and demand of risk capital is not particularly high in Austria, which could hamper the creation and growth of new technology-intensive or innovative enterprises. Limitations on access to venture capital finance are affecting innovative SMEs and start-ups. Risk capital financing is underdeveloped, with private equity at only 0.14% of GDP in 2022, significantly below the EU average of 0.42%, and venture capital was 0.041% of GDP (EU average 0.09%) ([115]).

The job vacancy rate in Austria is one of the highest in the EU. Labour shortages are particularly high in healthcare, hospitality, data processing and electrical and mechanical engineering. Also, around three quarters of SMEs in Austria experience a persistent shortage of specialised professionals, with IT being a notable example ([116]). At the same time, vocational training has been also declining in the last 10 years, while the share of training funded by companies has decreased from 40% to 30% of total vocational training funding ([117]). This shortage is expected to grow due to demographic changes and increasing demands for digitalisation: for example, just two thirds of SMEs in Austria reach at least a basic level of digital intensity, slightly below the EU average (and considerably below the EU target of 90% for 2030). This means that there is untapped potential to improve productivity within specific sectors by increasing digital intensity (see also Annex 10 and 14).

The export-oriented green tech sector is one of the fast-growing sectors in the Austrian economy. In 2022, Austria ranked third in the EU Eco-Innovation Index. While it is a leader in the deployment of renewable energy, with over 80% of its electricity mix coming from renewables, significant investments are still required to reach the goal of 100% renewable electricity consumption by 2030. Hydropower, solar thermal energy, heat pumps, plant engineering and energy management could be the basis of Austria's net zero technologies (see Annex 7 for more information on clean tech in Austria).

Industry is central to the Austrian economy, but to stay competitive requires substantial green investments. Industry accounted for 21.8% of gross value added and 15.7% of total employment in 2023 (compared to 20.6% and 15.4% in the EU). There is huge economic importance attached to hard-to-abate sectors (steel, chemical industry), so improvements in energy efficiency and decarbonisation are important to preserve competitiveness in industrial processes in Austria (see Graph A12.2).

Graph A12.2: **Value added and employment in industry (% total)**



Source: Eurostat

Complex and lengthy spatial planning and permitting procedures have a negative effect on investment, especially in the renewable energy sector. The federal states have far-reaching competences in many areas (building law, spatial planning etc.), which usually leads to different procedures and complex requirements. One ongoing project as part of the Single Market Enforcement Taskforce (SMET) aims to remove

([115])Investing in Europe: Private Equity Activity 2022, Invest in Europe, 2023.

([116])Eurobarometer 529: European Year of Skills: Skills shortages, recruitment and retention strategies in small and medium-sized enterprises, September 2023.

([117])Financing of adult and continuing education in Austria and in selected comparative countries, AK Wien, 2022.

several process-related barriers to renewable energy permitting, particularly the lack of staff or technical capacity, but also extensive requirements and delays in administrative processes. High planning predictability is an important prerequisite for the implementation of investment projects.

Austria is strongly integrated into the Single Market, and the regulatory framework is favourable for businesses. Austria's exports are relatively diversified, with about 80% going to the EU. In addition, according to the European Investment Bank ([118]) government regulation and administrative requirements are in line with EU standards. Nevertheless, there is still some scope for further improvement, including on ongoing infringement cases relevant for the Single Market. The average duration of infringement proceedings is around 50 months, higher than the EU average. On public procurement, Austria performs quite well overall: the percentage of bids with just one offer is 27%, slightly below the EU average, and the rate of direct awards is just 7% (see Table A12.1).

Regulatory restrictiveness in Austria is higher than the EU average for many regulated professions, especially for architects and civil engineers. These access barriers and restrictive rules include among others extensive reserved activities and interdisciplinary restrictions. Moreover, Austria remains among the most restrictive Member States in retail operations ([119]). The Austrian Federal Competition Authority also recently pointed to high market concentration as well as higher prices compared to other countries, which could result from territorial supply constraints ([120]).

Austria is generally well positioned in terms of digital services and e-government (see Annex 13). It has expanded digital public services for the business sector significantly, generally following the 'once-only' principle. Austria solved 70% of the SOLVIT cases (98) it handled as lead centre, below the EU average of 88% (see Table A12.1). However, many of the unresolved cases are due to a systemic issue related to difficulties with applications for family benefits. Indicatively, its resolution rate without these cases would have been 83.7%.

Austria has reached the production stage with the Once-Only Technical System (OOTS) ([121]), showcasing its capability to perform first live OOTS transactions. As part of the Single Digital Gateway Regulation ([122]), the system will enable the automated cross-border exchange of evidence between competent authorities, improving online access to information, administrative procedures and assistance within the EU. The onboarding of Austrian competent authorities is crucial for the system to function smoothly and to reduce administrative burden.

([118])EIB Investment Survey – European Union Overview, 2023.

([119])Retail restrictiveness Indicator, European Commission, 2022.

([120])Sector Inquiry Food, Austrian Federal Competition Authority (AFCA), November 2023.

([121])Implementing Regulation (EU) 2022/1463.

([122])Regulation (EU) 2018/1724.

Table A12.1:**Single Market and Industry**

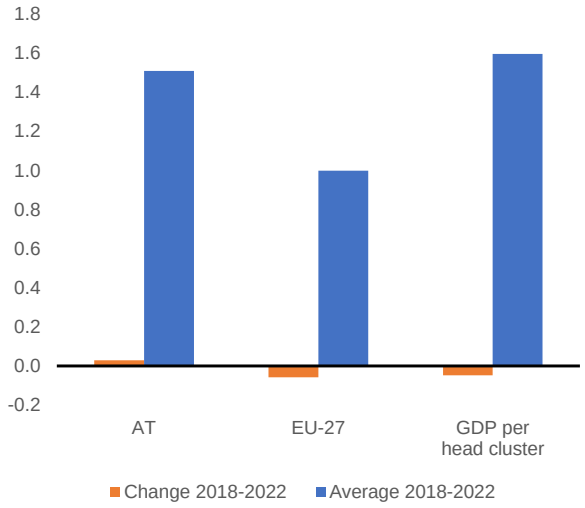
Austria							
POLICY AREA	**INDICATOR NAME**	**2019**	**2020**	**2021**	**2022**	**2023**	**EU27 average***
HEADLINE INDICATORS							
Economic Structure	Net Private investment, level of private capital stock, net of depreciation, % GDP[1]	6	4,5	5,3	4,9	3,8	**3,8**
	Net Public investment, level of public capital stock, net of depreciation, % GDP[1]	0,6	0,6	0,8	0,7	0,8	**1,2**
	Real labour productivity per person in industry (% yoy)[2]	-0,7	-5,6	10,4	2,7	-3,6	**-1,24**
Cost competitiveness	Nominal unit labour cost in industry (% yoy)[2]	3,3	5,5	-6,5	2,4	11,6	**9,83**
SINGLE MARKET							
Single Market integration	EU Trade integration, % (Average intra-EU imports + average intra EU exports)/GDP[2]	37,8	34,5	38,3	42,3	38,7	**42,9**
Compliance	Transposition deficit, % of all directives not transposed[3]	0,7	1,2	1,9	1	1	**0,7**
	Conformity deficit, % of all directives transposed incorrectly[3]	2	1,9	1,5	1,2	1,4	**1,1**
	SOLVIT, % resolution rate per country[3]	75,3	75,8	74,4	71,9	70,0	**88,3**
	Number of pending infringement proceedings[3]	27	35	35	29	24	**25,9**
Restrictions	EEA Services Trade Restrictiveness Index[4]	0,06	0,06	0,06	0,06	0,06	**0,05**
Public procurement	Single bids, % of total contractors[3]	24	22	25	29	27	**28,6**
	Direct Awards, %[3]	2	13	10	7	7	**8,1**
ECONOMIC STRUCTURE							
Shortages	Material Shortage (industry), firms facing constraints, %[5]	9,0	5,0	28,3	35,2	13,3	**17,2**
	Labour Shortage using survey data (industry), firms facing constraints, %[5]	16,1	7,0	14,5	21,4	18,0	**23,3**
	Vacancy rate, % of vacant posts to all available ones (vacant + occupied)[2]	3,7	3,1	4,3	5,8	5,1	**2,5**
Strategic dependencies	Concentration in selected raw materials, Import concentration index based on a basket of critical raw materials[6]	0,2	0,17	0,17	0,2	0,2	**0,22**
	Installed renewables electricity capacity, % of total electricity produced[2]	0,8	0,8	0,8	0,8		**50**
BUSINESS ENVIRONMENT - SMEs							
Investment obstacles	Impact of regulation on long-term investment, % of firms reporting business regulation as major obstacle[7]	35,8	29,2	35,4	26,0	30,0	**22,2**
Business demography	Bankruptcies, Index (2015=100)[2]	-	-	-	-	-	**105,6**
	Business registrations, Index (2015=100)[2]	-	-	-	-	-	**120,2**
Late payments	Payment gap - corporates B2B, difference in days between offered and actual payment[8]	-	14	12	14	17	**15**
	Payment gap - public sector, difference in days between offered and actual payment[8]	-	12	12	14	15	**16**
	Share of SMEs experiencing late payments in past 6 months, %[9]	38,2	30,4	30,4	32,3	42,1	**48,7**
Access to finance	EIF Access to finance index - Loan, Composite: SME external financing over last 6 months, index values between 0 and 1[10]	0,73	0,72	0,73	0,70	-	**0,49**
	EIF Access to finance index - Equity, Composite: VC/GDP, IPO/GDP, SMEs using equity, index values between 0 and 1[10]	0,15	0,08	0,12	0,12	-	**0,17**

Source: (1) AMECO, (2) Eurostat, (3) Single Market Scoreboard, (4) OECD, (5) COMEXT and Commission calculations, (6) EIB Investment Survey, (7) Intrum Payment Report, (8) SAFE survey, (9) EIF SME Access to Finance Index

* Own Commission calculations for the EU27 average

Austria's public administration is essential for the economy's competitiveness by, in particular, shaping the conditions for the twin transitions and creating a favourable business environment. The perception of government effectiveness in Austria has stayed above the EU average (Graph A13.1) despite challenges in state coordination of public administration reforms. The government continues to implement the reform objectives of the Responsible for Austria 2020-2024 programme. This focuses on digitalisation, process simplification, development of synergies across different levels of government, transparency, and the attractiveness of the civil service as an employer in relation to the private sector ([123]).

Graph A13.1: **Government effectiveness**



Average value over 2018-2022 and change over 2018-2022. The GDP per head bar shows the mean value of the government effectiveness indicator for the group of EU countries belonging to the same GDP per head cluster as Austria (EU countries are ranked in terms of their GDP per head and grouped into three equally sized clusters).
Source: Worldwide Governance Indicators

The adoption of COVID-19 support measures sparked further discussions on evidence-informed policymaking, which has had mixed results in Austria. While there are no central coordination bodies or institutions in place, such as a chief scientific officer, impact assessments are used to promote evidence-informed policymaking in the legislative process. ([124]). In addition, the recommendations of various independent advisory bodies, such as the Fiscal Council, are widely discussed but only partially implemented. The impact of recent reforms aimed at improving public consultations for all legislative proposals throughout the legislative process is yet to be felt.

Austria has implemented a novel approach to policymaking on climate issues, with a newly formed Citizens' Climate Assembly developing suggestions for climate-related measures ([125]). The Ministry of Finance has begun to engage in green budgeting at federal level, starting with a focus on its implementation in the ministry ([126]).

Digitalisation efforts have a strong focus on the use of artificial intelligence (AI) in the public administration. Government agencies have drawn up several reports examining the opportunities and challenges of AI, its ethical use and practical guidance for its use by civil servants ([127]). In terms of service delivery, Austria ranks close to the EU average in people's use of websites for government activities. The launch of a new online identity app at the end of 2023 is expected to increase access to administrative procedures by using biometric identification ([128]).

The civil service will experience a retirement wave in the next 13 years, even though the proportion of public sector staff over the age 55 is currently below the EU average. In response, the government is working to boost the attractiveness

([123])Bundeskanzleramt, Aus Verantwortung für Österreich. Regierungsprogramm 2020-2024, https://www.bundeskanzleramt.gv.at/bundeskanzleramt/die-bundesregierung/regierungsdokumente.html.

([124])Ministry for Arts, Culture, Public Service and Sport (n.d.), Wirkungsorientierte Folgenabschätzung, https://oeffentlicherdienst.gv.at/wirkungsorientierte-verwaltung/wirkungsorientierte-folgenabschaetzung/.

([125])See Ministry for Climate and the Environment (n.d.), 'Klimarat der Bürgerinnen und Bürger'. Available at: https://www.bmk.gv.at/themen/klima_umwelt/klimaschutz/nat_klimapolitik/klimarat.html (Accessed on 07/12/2023).

([126])Ministry of Finance (2023), 'Green Budgeting im Bundesministerium für Finanzen'. Available at: https://www.bmf.gv.at/themen/klimapolitik/green_Budgeting/green_budgeting-/green_budgeting_im_bundesministeriums_f%C3%BCr_finanzen.html (Accessed on 07/12/2023).

([127])Ministry for Arts, Culture, Public Service and Sport (2023), Leitfaden – Digitale Verwaltung und Ethik – Öffentlicher Dienst (oeffentlicherdienst.gv.at)

([128])European Commission, DG REFORM, Public administration and governance: Austria, Publications Office of the EU, 2024 (forthcoming).

Table A13.1:**Public administration indicators**

AT	Indicator ([1])	2019	2020	2021	2022	2023	EU-27([2])
E-government and open government data							
1	Share of internet users within the last year that used a public authority website or app	n/a	n/a	n/a	78.5	79.0	75.0
2	E-government benchmark overall score ([3])	n/a	84.1	76.3	77.8	81.1	75.8
3	Open data and portal maturity index	0.7	0.9	0.9	0.8	0.9	0.8
Educational attainment level, adult learning, gender parity and ageing							
4	Share of public administration employees with higher education (levels 5-8, %)	38.1	38.0	38.9 (b)	41.2	41.9	52.9
5	Participation rate of public administration employees in adult learning (%)	18.3	13.1	17.8 (b)	20.3	22.7	17.9
6	Gender parity in senior civil service positions ([4])	20.6	22.0	19.0	16.4	16.8	9.2
7	Ratio of 25-49 to 50-64 year olds in NACE sector O	1.3	1.4	1.4 (b)	1.5	1.4	1.5
Public financial management							
8	Medium-term budgetary framework index	0.6	0.7	0.7	0.7	n/a	0.7
9	Strength of fiscal rules index	1.2	1.2	1.2	1.2	n/a	1.4
Evidence-based policy making							
10	Regulatory governance	n/a	n/a	1.86	n/a	n/a	1.7

([1]) High values denote a good performance, except for indicator # 6. ([2]) 2023 value. If unavailable, the latest value available is shown. ([3]) Measures the user centricity (including for cross-border services) and transparency of digital public services as well as the existence of key enablers for the provision of those services. ([4]) Defined as the absolute value of the difference between the percentage of men and women in senior civil service positions.
Flags: (b) break in time series; (d) definition differs; (u) low reliability.
Source: E-government activities of individuals via websites, Eurostat (# 1); E-government benchmark report (# 2); Open data maturity report (# 3); Labour Force Survey, Eurostat (# 4, 5, 7); European Institute for Gender Equality (# 6); Fiscal Governance Database (# 8, 9); OECD Indicators of Regulatory Policy and Governance (# 10).

of the public sector by opening up to candidates from the private sector and increasing initial pay ([129]). Gender parity in senior civil service positions is still lagging slightly behind the EU average but continues on the upward trend of the past few years. Lastly, the government aims to address the skills gap in the public administration by launching the Austrian School of Government, which will help to match the skills requirements of the workplace with the curricula of training institutions.

In providing open government data, Austria performs above the EU average (Table A13.1). A new legislation proposal was adopted that replaces the official secrecy obligation with the individual's right to information and will be applicable as of September 2025. Nevertheless, discussions on the effectiveness of the proposal and its exemptions continue.

The justice system works efficiently overall. Disposition times in litigious civil and commercial cases remain very low (142 days at first instance in 2022). Austria has continued to improve administrative cases in recent years, with a relatively high clearance rate (112% in 2022) and a continued reduction in disposition times (288 days in 2022 compared to 312 in 2021). The level of digitalisation is very advanced although there are still some gaps in the implementation of certain tools. On judicial independence, no systemic deficiencies have been reported ([130]).

([129])European Commission, DG REFORM, Public administration and governance: Austria, Publications Office of the EU, 2024 (forthcoming).

([130])For a more details, see the 2024 EU Justice Scoreboard and the Commission's 2024 Rule of Law Report (forthcoming).

ANNEX 14: EMPLOYMENT, SKILLS AND SOCIAL POLICY CHALLENGES IN LIGHT OF THE EUROPEAN PILLAR OF SOCIAL RIGHTS

The European Pillar of Social Rights is the compass for upward convergence towards better working and living conditions in the EU. This Annex provides an overview of Austria's progress in implementing the Pillar's 20 principles and the EU headline and national targets for 2030 on employment, skills and poverty reduction.

Table A14.1:**Social Scoreboard for Austria**

Policy area	Headline indicator	
Equal opportunities and access to the labour market	Adult participation in learning (during the last 12 months, excl. guided on the job training, % of the population aged 25-64, 2022)	52.2
	Early leavers from education and training (% of the population aged 18-24, 2023)	8.6
	Share of individuals who have basic or above basic overall digital skills (% of the population aged 16-74, 2023)	64.7
	Young people not in employment, education or training (% of the population aged 15-29, 2023)	9.4
	Gender employment gap (percentage points, population aged 20-64, 2023)	7.8
	Income quintile ratio (S80/S20, 2022)	4.3
Dynamic labour markets and fair working conditions	Employment rate (% of the population aged 20-64, 2023)	77.2
	Unemployment rate (% of the active population aged 15-74, 2023)	5.1
	Long term unemployment (% of the active population aged 15-74, 2023)	1.1
	Gross disposable household income (GDHI) per capita growth (index, 2008=100, 2022)	99.4
Social protection and inclusion	At risk of poverty or social exclusion (AROPE) rate (% of the total population, 2022)	17.5
	At risk of poverty or social exclusion (AROPE) rate for children (% of the population aged 0-17, 2022)	21.6
	Impact of social transfers (other than pensions) on poverty reduction (% reduction of AROP, 2022)	41.96
	Disability employment gap (percentage points, population aged 20-64, 2022)	23.8
	Housing cost overburden (% of the total population, 2022)	7.4
	Children aged less than 3 years in formal childcare (% of the under 3-years-old population, 2022)	23
	Self-reported unmet need for medical care (% of the population aged 16+, 2022)	0.5

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

(1) Update of 27 October 2023. Members States are categorised based on the Social Scoreboard according to a methodology agreed with the EMCO and SPC Committees. Please consult the Annex of the Joint Employment Report 2024 for details on the methodology.
Source: Eurostat.

Despite a weakening economy, Austria's labour market proves to be robust. Throughout 2023 the employment rate remained stable and decreased by only 0.1 pps to 77.2% compared to the previous year, remaining close to the 2030 national target on employment. With the increased participation of women and older workers in the labour force, employment is expected to grow in 2024. While the unemployment rate increased by 0.3 percentage points (pps) year-on-year to 5.1% in 2023, it is expected to stabilise at around 5.3% in 2024.

The labour market potential of women remains underused, with significant hurdles persisting. The female employment rate in 2023 was at a high level in absolute terms (73.3%). However, at the same time Austria had one of the widest gender gaps in part-time employment in the EU at 38.6 pps, with more than half of women working part-time, significantly contributing to gender pay disparities. In 2022, the unadjusted gender pay gap narrowed slightly by 0.4 pps and stood at 18.4%. The gender pension gap was 34.4%, well above the EU average of 26%. Unpaid care work, and a lack of affordable and high-quality early childhood education and care (ECEC), are key reasons to explain the gender pay gap. Only 24.1% of children under 3 years of age participated in ECEC in 2023, reflecting only a minor increase of 1.1 pps year-on-year and significantly below the national Barcelona target of 31.9%. Moreover, one in four children in low-income families live in households that report an unmet need for childcare services ([131]). Additional measures in line with the European Child Guarantee, together with the financial support committed under the Austrian recovery and resilience plan (RRP) and the ESF+ intended to improve the availability of ECEC can increase the labour market participation of women.

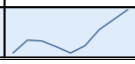
Labour and skills shortages remain among the highest in the EU and are impacting growth, investment and innovation. Together with the underrepresentation of various groups on the labour market and in education and the challenges posed by the lack of certain skills, these shortages undermine Austria's efforts to improve its economic competitiveness. While the job vacancy rate fell by 0.6 pps year-on-year to 4.7% in 2023, it was still one of the highest in the EU and has stayed above 4% since the end of 2021. Shortages were particularly prevalent in the service and construction sectors. Around 25% of construction companies said that they faced staff shortages in Q3-2023. In 2023, 62% of entrepreneurs in Austria said that they were severely impacted by shortages. Almost half said that this hampered innovation and more than half experienced declining revenues as a result ([132]). An ageing society, changing skills requirements in the

([131])OECD, Childhood socio-economic disadvantage in Austria: A snapshot of key challenges (oecd-ilibrary.org), 2023.

([132])WKO Fachkräfte-Radar: Gemeinsam Fachkräfte sichern, 2023.

context of the twin green and digital transitions, and existing skills mismatches are all factors that explain these shortages ([133]). Austria's vocational education and training (VET) system, which is being continuously developed, supports sustainability and targets the green transition. Under the national implementation plan of the Council recommendation on VET, Austria aims to fill the shortage of skilled labour, improve the attractiveness of VET, and make non-formal qualifications and informal learning more attractive.

Table A14.2:**Situation of Austria on 2030 employment, skills and poverty reduction targets**

Indicators	Latest data	Trend (2016-2023)	2030 target	EU target
Employment (%)	77.2 (2023)		79.9	78
Adult learning[1] (%)	52.2 (2022)		62	60
Poverty reduction[2] (thousands)	158 (2023)		-204	-15,000

(1) Adult Education Survey, adults in learning in the past 12 months, special extraction excl. guided on-the-job training.
(2) Change in the number of persons at risk of poverty or social exclusion (AROPE), reference year 2019.
Source: Eurostat, DG EMPL.

Despite widespread labour shortages and skills mismatches, some groups are still underrepresented on the labour market. Although the employment rate of older workers (55-64) increased continuously over the last decade to reach 57.3% in 2023, it remains well below the EU average of 63.9%. With fewer digital skills and often facing discriminatory practices because of their age, it is difficult for workers over 55 to be reintegrated in jobs. People with a low level of skills are particularly vulnerable and represent the highest share of the unemployed ([134]). Their employment rate of 55.6% in 2023 is 21.6 pps below the overall employment rate. While people born in another EU country have almost the same employment rate as people born in Austria, those born outside the EU face significant obstacles in the labour market. At 65.7% in Q3-2023, their employment rate was 13.3 pps below the rate of those born in Austria. Tackling their unused labour market potential, in particularly by improving skill levels, can contribute to addressing labour shortages and reaching the 2030 targets on employment and skills. National measures, such as the 'Joboffensive 50plus', increased funding to integrate refugees and the Austrian RRP, focus on improving labour market outcomes for older workers, the low-skilled and migrants. The 'Funding for reskilling and upskilling' programme, together with the 'one-stop shop' for guidance on adult learning aim to improve the skills of people with no or few qualifications and reduce barriers to adult learning.

A young person's socio-economic background has a major impact on their educational performance and social integration, and on getting them into work or training. The share of early young people (aged 18-24) who leave education or training early (ELET) increased in 2023 to 8.6%, which is better than the EU-level target of under 9%. Young people born outside Austria and people living in cities are more likely to leave education and training early ([135]). Preventing young people from leaving education and training early is key to reducing various risks in their future, including unemployment, inactivity and employment in low-paid jobs with few or no prospects for training and career progression. Considering the difficulties that the socio-economic background plays in the labour market integration, particularly given the strong shortages of labour, further investment in education may help, especially to cope with the challenges of increased diversity, e.g. through German language support, and to provide tailored adult education measures.

Austria's social security system has shown stability over time. While minimum income schemes, unemployment assistance and other benefits offer adequate coverage in Austria ([136]), some indicators demonstrate a slowly deteriorating trend. As high energy prices put pressure on low-income households (Annex 8), in 2023, the share of people at risk of poverty or social exclusion (AROPE) reached an 8-year high at 17.7%, and the rate of severe material and social deprivation markedly increased by 1.4 pps to 3.7%. Single-parent households and people born outside the EU are particularly at risk of poverty or social exclusion. In 2023, almost half of single parent households (45.3%) were at risk. At the

([133])Statistik Austria, Fachkräftebedarf in Österreich, 2023.

([134])AMS, Arbeitsmarkt und Bildung, 2022.

([135])Education And Training Monitor 2023.

([136])Minimum income report, 2022.

same time, the situation of children at risk of poverty or social exclusion worsened slightly with the share of children born outside Austria who are at risk remains substantially higher than for Austrian nationals. Further policy action to support single parents and those at risk of poverty, particularly children, can help achieve the 2030 poverty reduction target.

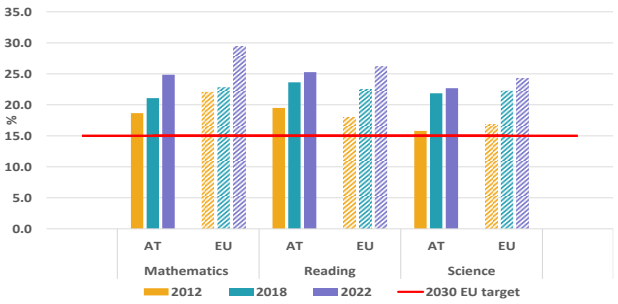
This Annex outlines the main challenges of Austria's education and training system based on the 2023 Education and Training Monitor and the 2022 OECD Programme for International Student Assessment (PISA) results.

The socio-economic gap in underachievement in basic skills has widened since 2012. According to PISA 2022, the proportion of low-achieving students in mathematics and reading has continuously increased since 2012**.** The 15% EU target was not met in mathematics (24.9%), reading (25.3%) or science (22.7%). Underachievement has increased in particular among students from disadvantaged and migrant backgrounds. In 2022, 45.1% ([137]) of students from disadvantaged background did not reach a minimum proficiency level in mathematics (vs 35.1% in 2012). Similarly, 45.4% of students born abroad underachieve (vs 37.8% in 2012).

The share of top-performing students is above the EU average. In 2022 10.3% of Austrian students reach the highest levels in PISA in mathematics and 7.9% in reading and 7.7% in science, above the EU average in all three fields. However, their share fell in mathematics since 2012 by about a third (4.0 pps). It increased in reading (2.2 pps) and remained unchanged in science. This trend is roughly in line with EU trends. Both the increase in underperformance and the reduction in the share of top-performing students may present risks to successfully addressing labour shortages, and so hampering innovation capacity and competitiveness.

Serious staff shortages exist in early childhood education and care (ECEC) and in compulsory school education. Teacher shortages are already pronounced in certain subjects and regions. In ECEC, the continuous expansion of supply combined with policy action to increase quality is expected to increase the need for additional staff by at least 20 200 people by 2030 ([138]). Despite comparatively high salaries and attractive working conditions ([139]), it is difficult to recruit and train sufficient staff for ECEC. Over one fourth of all teachers in Austria are aged 55 or more, while the number of pupils in compulsory education is expected to increase by 5-7% up to 2030 ([140]). The government is taking measures to improve the attractiveness of the teaching profession, to improve working conditions, and to reform and shorten teacher education, while facilitating lateral entry into the profession.

Graph A15.1: **Underachievement rates by field, PISA 2012, 2018 and 2022**



Source: OECD (2023).

Ensuring equal opportunities and improving basic skills and digital learning are high on Austria's national education agenda. The rate of early leavers from education and training remained at 8.6% in 2023, below the EU average and already reaching the EU-level target. However, the rate for non-EU foreign-born pupils (15.2%) is about two times higher than the rate for native-born (6.8%). Several initiatives have been taken to improve access to quality education, especially for disadvantaged pupils. These include support through multi-professional teams (2017-2022) for 500 primary and compulsory secondary schools facing challenges, as well as the '100 Schools – 1 000 Opportunities' initiative, which has been extended to 2024. In 2023, Austria reformed the curricula to promote acquisition of basic competences and to modernise teaching methods. It has also taken measures to narrow the learning gaps that opened up during the COVID-19 pandemic. The nationwide standardised instrument for assessing core competences, introduced in 2022, aims to strengthen basic skills. It seeks to boost learning of the German language by the continued development of German-language support measures, including a reading strategy.

Participation in early childhood education and care (ECEC) remains below the EU average and the EU target. The participation

([137])PISA 2022 bottom quarter.

([138])Löffler, R. et al. (2022) Bildungs- und Berufsverläufe

([139])European Education and Training Monitor Austria 2023.

([140])National Education Report Austria 2021.

Table A15.1:**EU-level targets and other contextual indicators under the European Education Area strategic framework**

				2012		2018		2023	
Indicator			Target	Austria	EU-27	Austria	EU-27	Austria	EU-27
[1]Participation in early childhood education (age 3+)			96%	86.5% 2013	91.8% 2013	89.7%	92.2%	89.0% 2021	92.5% 2021,d
[2]Low-achieving 15-year-olds in:		Reading	< 15%	19.5%	18.0%	23.6%	22.5%	25.3% 2022	26.2% 2022
		Mathematics	< 15%	18.7%	22.1%	21.1%	22.9%	24.9% 2022	29.5% 2022
		Science	< 15%	15.8%	16.8%	21.9%	22.3%	22.7% 2022	24.2% 2022
Early leavers from education and training (age 18-24)	[3]Total		< 9 %	7.8%	12.6%	7.3%	10.5%	8.6%	9.5%
	[3] By gender	Men		8.0%	14.5%	8.9%	12.1%	9.3%	11.3%
		Women		7.6%	10.6%	5.7%	8.7%	7.9%	7.7%
	[4] By degree of urbanisation	Cities		10.6% b	11.2%	10.1%	9.4%	11.3%	8.6%
		Rural areas		5.1% b	14.0%	4.4%	11.0%	6.1%	9.9%
	[5] By country of birth	Native		6.2%	11.3%	5.5%	9.2%	6.8%	8.2%
		EU-born		9.7% u	26.2%	10.7% u	22.4%	16.8%	21.0%
		Non EU-born		22.0%	30.1%	22.2%	23.0%	15.2%	21.6%
[6]Socio-economic gap (percentage points)				28.7	:	27.8	29.5	37.8 2022	37.2 2022
[7]Exposure of VET graduates to work-based learning			≥ 60% (2025)	:	:	:	:	91.2%	64.5%
Tertiary educational attainment (age 25-34)	[8]Total		45%	22.8%	34.1%	40.5%	38.7%	43.5%	43.1%
	[8] By gender	Men		21.3%	29.1%	36.1%	33.3%	39.1%	37.6%
		Women		24.3%	39.2%	44.9%	44.2%	48.1%	48.8%
	[9] By degree of urbanisation	Cities		31.8% b	43.5%	48.7%	49.0%	52.6%	53.3%
		Rural areas		15.8% b	24.8%	34.4%	27.7%	36.9%	31.7%
	[10] By country of birth	Native		23.2%	35.4%	42.0%	39.7%	43.6%	44.2%
		EU-born		30.7%	29.3%	46.0%	36.7%	50.1%	40.2%
		Non EU-born		14.7%	24.2%	28.8%	31.0%	37.9%	37.1%
[11]Participation in adult learning (age 25-64)			≥ 47% (2025)	:	:	55.3% 2016	37.4% 2016	52.2% 2022	39.5% 2022
[12]Share of school teachers (ISCED 1-3) who are 55 years or over				23.5% 2013	22.7% 2013	28.0%	23.8%	27.3% 2021	24.5% 2021

Notes: b = break in time series; d = definition differs; e = estimated; p = provisional; u = low reliability; : = data not available.
Source: 1,3,4,5,7,8,9,10,12=Eurostat; 11= Eurostat, Adult Education Survey; 2,6=OECD, PISA.

rate for children between the age of 3 and the compulsory primary schooling age was 89.0% in 2021 and has remained largely stable since 2017 ([141]). It is 3.5 pps below the EU average and 7 pps below the EU-level target of 96% by 2030. In 2022, the federal government concluded a 5-year agreement with the federal states, including a 40% increase of the annual federal budget contribution (EUR 200 million), matched by an annual contribution of EUR 63 million from the regions. Key objectives are to continue compulsory participation of 5-year-olds in ECEC, to extend the offer of ECEC places, to promote early language learning and to increase the share of places for under-3-year-olds. While the agreement offers opportunities for quality improvement, it still falls short of establishing a comprehensive quality framework. The Recovery and Resilience Facility also supports the extension of available places in ECEC (see Annex 3).

Austria continues to increase the tertiary attainment rate, but access is strongly influenced by students' background. In 2023, 43.5% of young people aged 25-34 held a tertiary degree and over the last decade, the attainment rate has almost doubled (from 22.8% in 2012). Similarly, to the EU trend, the rate for women (48.1%) is higher than for men (39.1%). Young people from a disadvantaged socio-economic and/or migrant background are less likely to complete higher education studies than their more advantaged peers. The 2017 national strategy on the social dimension in higher education aims to make higher education more inclusive. The 2022 mid-term evaluation shows qualitative improvements and many measures taken by higher education institutions regarding outreach, but not enough progress on national quantitative targets.

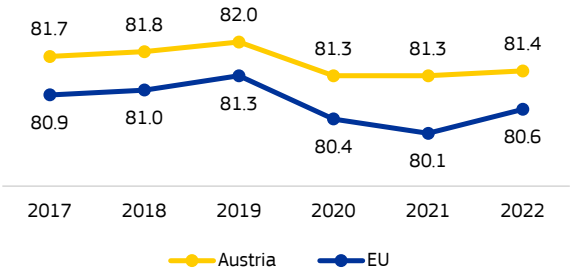
Overall, Austria has a very good vocational education and training system, which is also the case for the adult learning system, but skills shortages and inequalities do exist (see Annex 14).

([141])Eurostat: educ_uoe_enra21.

A healthy population and an effective, accessible and resilient health system are prerequisites for a sustainable economy and society. This Annex provides a snapshot of population health and the health system in Austria.

In 2022, life expectancy in Austria was above the EU average. Compared to the previous years, life expectancy increased slightly in 2022, partly due to a considerable reduction in the number of COVID-19 deaths in 2022 ([142]). However, life expectancy is still below its pre-pandemic levels. In general, treatable and preventable mortality rates are lower than the EU average. In 2021, the leading causes of death were, as before, diseases of the circulatory system ('cardiovascular diseases') followed by cancer and COVID-19. Cancer mortality rates were lower than the EU average.

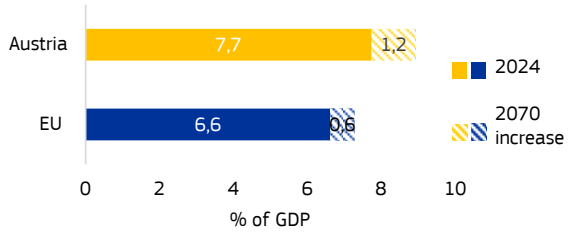
Graph A16.1: **Life expectancy at birth, years**



Source: Eurostat

In 2021, health spending was 12.1% of GDP in Austria, above the EU average of 10.9%. Austria's health spending per capita (adjusted for differences in purchasing power) was among the highest in the EU in 2021, well above the EU average. The biggest part of healthcare spending (30%) was on inpatient care, with a share above the EU average. This is partly a reflection of the high number of hospital beds in Austria compared to the average across the EU. Public spending as a proportion of total health expenditure has steadily increased in recent years and was 78.3% in 2021, however still below the EU average of 81.1%. This points to high cost--sharing charges for households when accessing healthcare, mainly for outpatient pharmaceuticals and outpatient medical care. Provisional data suggest that in 2022, total healthcare spending fell back to 11.4% of GDP. Based on the age profile of the Austrian population, public spending on health is projected to increase by 1.2 percentage points (pps) of GDP by 2070 (compared to 0.6 pps for the EU overall), raising medium-term and long-term fiscal sustainability concerns (see Graph 16.2 and Annex 21).

Graph A16.2: **Projected increase in public expenditure on healthcare over 2024-2070**



Baseline scenario
Source: European Commission / EPC (2024)

In 2021, spending on prevention in Austria amounted to 10.3% of total spending on healthcare, the highest share among EU countries and much higher than the 6.0% share for the EU overall. In addition, Austria reported a high proportional increase in spending on prevention, with budget shares more than tripling between 2019 and 2021, surpassing the 106% increase for the EU overall. Proportionally, budget shares for prevention across the EU increased most for emergency response, disease detection and immunisation programmes. In Austria, the main factors explaining the rise in spending on preventive care in 2021 are large increases for early disease detection programmes and immunisation programmes (including for COVID-19). A further issue relevant to public health is the consumption of antimicrobials for systemic use. In Austria, consumption amounted to 10.5 daily defined doses per 1 000 population per day in 2022, well below the EU average of 19.4, pointing to a prudent use of antimicrobials in the health system.

The density of doctors and nurses in Austria is above the EU average, but there are concerns about regional and sectoral disparities. The number of doctors per 1 000 population has slightly increased to 5.5 (2022),

([142]) Based on data provided directly by Member States to the European Centre for Disease Prevention and Control, under the European Surveillance System.

Table A16.1:**Key health indicators**

	2018	2019	2020	2021	2022	EU average (latest year)
Treatable mortality per 100 000 population (mortality avoidable through optimal quality healthcare)	75.2	73.2	70.4	71.2	NA	93.3 (2021)
Cancer mortality per 100 000 population	234.0	229.6	230.5	224.7	NA	235.4 (2021)
Current expenditure on health, % GDP	10.4	10.5	11.4	12.1	11.4	10.9 (2021)
Public share of health expenditure, % of current health expenditure	74.7	75.1	76.8	78.3	NA	81.1 (2021)
Spending on prevention, % of current health expenditure	2.1	2.1	3.4	10.3	NA	6.0 (2021)
Available hospital beds per 100 000 population	727	719	705	691	NA	525 (2021)
Doctors per 1 000 population	5.2	5.3	5.3	5.4	5.5	4.1 (2021)*
Nurses per 1 000 population	6.9	10.3	10.3	10.6	NA	7.9 (2021)
Total consumption of antibacterials for systemic use, daily defined dose per 1 000 inhabitants per day ***	NA	11.6	8.8	8.8	10.5	19.4 (2022)

Note: The EU average is weighted for all indicators except for doctors and nurses per 1 000 population, for which the EU simple average is used. Doctors' density data refer to practising doctors in all countries except Greece, Portugal (licensed to practise) and Slovakia (professionally active). Nurses' density data refer to practising nurses in all countries except Ireland, France, Portugal, Slovakia (professionally active) and Greece (hospital only).

Source: Eurostat Database; except: * OECD, ** Joint Questionnaire on non-monetary healthcare statistics, *** ECDC, **** Council Recommendation on stepping up EU actions to combat antimicrobial resistance in a One Health approach.

above the EU average of 4.1 (2021). However, there is a debate about the lack of doctors in certain specialties and sectors, in rural areas and certain regions, with the density varying from 4 per 1 000 population in Burgenland to nearly 7 in Vienna ([143]). Importantly, the proportion of general practitioners has declined from 16% in 2010 to less than 14% in 2021 and is now one of the lowest in the EU. The number of nurses per 1 000 population was 10.6 (2021), compared to an EU average of 7.9 (2021). Regarding the age profile of nursing professionals, in 2016 around a quarter of nurses were aged 55 or above. This raises some concerns in terms of the sustainability of current nursing workforce levels.

In November 2023, the Austrian government presented a healthcare reform package for 2024-2028. The reform package aims to expand and strengthen digital health services, to strengthen outpatient care, pursue structural reforms in the hospital sector, improve medicine supply and vaccination programmes, strengthen nursing and long-term care, and health promotion and prevention ([144]). The reforms may help Austria overcome its low uptake of digital health solutions. For example, data for 2022 indicate a drop in the uptake of telemedicine since 2020, a pattern contrary to the steady increase in telemedicine uptake in the EU overall.

Through its recovery and resilience plan (RRP), Austria plans to invest EUR 254 million (6.4% of the RRP's total value) in healthcare. The largest health investment under the RRP aims to expand multi-professional primary healthcare units across the country. This investment is complemented by a reform which aims to strengthen primary healthcare by promoting the attractiveness of working conditions for general practitioners and other health and social professions in primary healthcare. In addition, the RRP contains investments in community nursing, the national roll-out of 'early aid' for socially disadvantaged pregnant women, their young children and families, and the development of an electronic child pass platform.

([143])ÖÄK (2023), Ärztestatistik für das Jahr 2022 [Physician statistics for the year 2022] https://www.aerztekammer.at/daten-fakten.

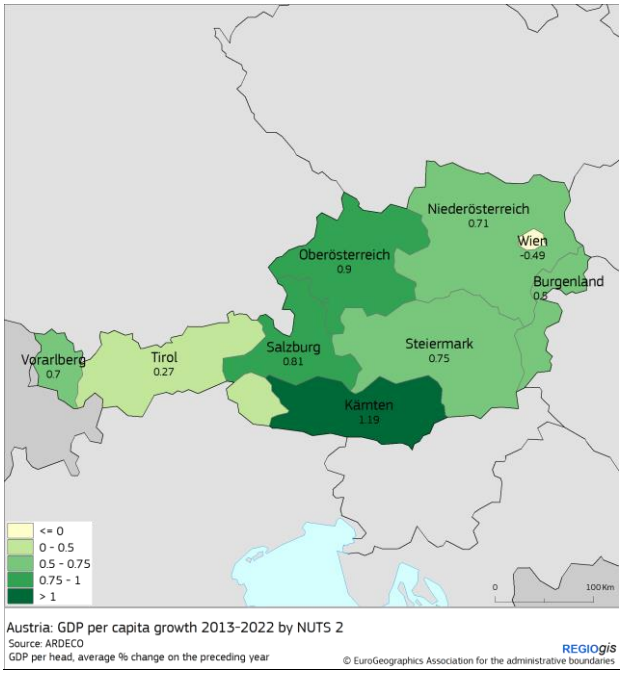
([144])https://eurohealthobservatory.who.int/monitors/health-systems-monitor/analyses/hspm/austria-2018/new-health-care-reform-2024-2028-strengthens-digital-and-ambulatory-care

Annex 17 showcases the economic and social regional dynamics in Austria. It provides an analysis of economic, social, and territorial cohesion in the Austrian regions and assesses emerging investment and subnational reform needs to foster economic growth, social development and competitiveness in the country.

Overview of economic and social performance at regional level

Austria has one of the lowest regional disparities among all EU Member States. Compared to other EU Member States and the EU average, Austria maintains a relatively balanced overall distribution of wealth, resources, and opportunities among its regions.

Map A17.1: **Austria, NUTS2: GDP per capita growth 2013-2022**

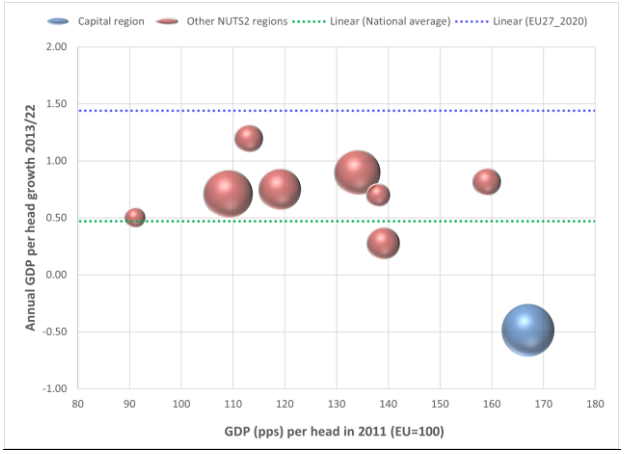


Source: DG REGIO

However, some regional disparities still exist. They mainly arise from differences in GDP per capita, labour productivity, and R&D investment distribution. There are also minor regional variations in terms of investment, competitiveness, and innovation, which remain strong compared to the EU average.

In addition, demographic shifts could lead to regional inequalities in the medium to long term. Austria is currently experiencing a net population increase driven by migration. However, this population growth is concentrated in urban areas within more developed regions. At the same time, some rural areas with lower economic performance are witnessing a population decline coupled with a rising share of people aged over 65.

Graph A17.1: **Austria, NUTS2: Average GDP per capita growth vs GDP per capita**

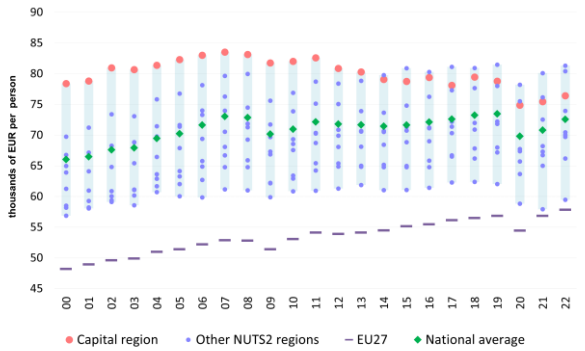


Source: DG REGIO calculations based on JRC (ARDECO) and Eurostat data

In 2013-2022, the annual real GDP growth increased (+0.47%) but was lower than the EU average (1.44%) in all regions (Map A17.1). Annual growth in GDP per capita was negative in Vienna (-0.5%) and reached a modest increase of 0.3-0.9% in the other regions, with the exception of Kärnten (1.2%). Wien experienced a prolonged period (>16 years) of below-average growth in GDP per capita, productivity and employment, while its population grew by more than 10% (from 1.75 to 1.96 million between 2013 and 2022).

In 2013-2022, the annual real GDP growth per capita increased (+0.47%) but was lower than the EU average (1.44%) in all regions (Map A17.1). The annual growth was negative in Wien (-0.5%) and reached a modest 0.3-0.9% increase in other regions, except for Kärnten, which reached 1.2%.

Graph A17.2: **Evolution of labour productivity (real GVA per worker) in Austria**



Source: ARDECO, DG REGIO elaboration

Significant differences between Austrian regions remain in labour productivity. The country's overall performance in labour productivity, measured as gross value added (GVA) per person employed, was 114% of the EU average in purchasing power standards (PPS) in 2022. It ranged from 139% in Vorarlberg, 124% in Salzburg, 120% Wien, to 97% in Burgenland. Labour productivity growth between 2013 and 2022 (0.1%) was lower than the EU average of 0.7%. Growth was concentrated in less performing regions within Austria, such as Kärnten, with an average growth of 0.8%. Labour productivity decline was highest in the more developed region of Wien by -0.6%.

Austria's R&D intensity (106) ranked third in the EU in 2021. However, R&D expenditure showed substantial variations among regions. In 2021, Steiermark ranked top (5.2% of GDP), followed by Oberösterreich and Wien (more than 3.5%) and Burgenland ranked bottom (0.8%). R&D investments have continuously increased at national level, driven by the public and private sectors, with Wien excelling in knowledge-intensive and high-tech sectors. However, this has not translated into a high number of technology and knowledge-intensive start-ups. This could threaten Austria's future competitiveness, as the regions at the bottom of the competitiveness index are also those regions with the lowest R&D expenditure.

All Austrian regions ranked above the EU average in terms of competitiveness in 2022. Niederösterreich and Wien (120) ranked top and Kärnten and Burgenland ranked bottom (106).

Disparities in investment, measured by gross fixed capital formation as a share of GDP, are limited and the overall performance of 25% exceeds the EU average of 22%. Kärnten and Burgenland achieved the highest ranking with a 27% investment rate. The Vorarlberg region, with the lowest investment rate in Austria at 23%, slightly trails the Austrian average but remains above the EU average.

Austria's innovation performance is above the EU average, with minor differences across the Austrian regions. In 2023, Ostösterreich was classified as a 'Leader' while Westösterreich and Südösterreich were classified as 'Strong Innovators' ([145]). Austria lags behind the EU average in terms of non-R&D innovation expenditure.

Low unemployment (below 5.3% in all regions except Wien in 2023), coupled with a high job vacancy rate (4.8% in 2022) has created labour shortages. The unemployment rate hit a low of -3.0-3.1% in Salzburg and Tirol and a high of 9.6% in the region of Wien.

Demographic challenges could significantly affect the labour market in the future. Austria has a net population growth driven by migration. The population has grown by an annual average of 6.7 per 1 000 residents between 2012 and 2021. Increases were significant in the NUTS 3 regions of Wien and Graz (11 per the 1 000 years). Conversely, Kärnten, Steiermark and Salzburg saw a demographic decline (-2.5 to -4.2 per 1 000 per year). These trends reflect the ongoing rural-urban transitions across Austria, contributing to the urban population's growth and the expansion of conurbations.

Strong regional disparities persist in early childhood education. Although the share of children aged 0 to 3 attending kindergarten has been on the rise and more investments are expected with the introduction of the Child Guarantee in Austria, some regions are still offering low coverage. While in 2021/22, 45.6% of children under 3 attended kindergarten in Vienna, only half the amount went to kindergarten in Oberösterreich (22%) and 22.9% in Steiermark.

([145])Based on the methodology of the 2023 European Innovation Scoreboard.

Table A17.1:**Selected indicators at regional level in Austria**

Region name	GDP per head (purchasing power standard/PPS)	GDP per head growth	Productivity (GVA, PPS) per person employed	Real productivity growth	Population growth	Total population aged >65	Unemployment rate	R&D expenditure	Regional competitiveness
	EU27 = 100 2022	Average % change on the preceding year 2013-2022	EU27 = 100 2022	Average % change on the preceding year 2013-2022	Average annual change per 1000 residents 2013-2021	% of total population 2023	% of labour force 2023	% of GDP 2021	EU27 = 100 2022
European Union (27 MS)	100	1.44	100	0.7	1.9	21.3	6.1	2.3	100
Austria	124	0.47	114.2	0.1	6.7	19.6	5.1	3.3	113.8
Burgenland	88	0.5	97	-0.3	4.1	23.3	5.2	0.8	106.4
Niederösterreich	105	0.71	112.5	0.2	5.4	20.9	4.3	1.8	118.9
Wien	142	-0.49	120.1	-0.6	11.5	16.4	9.6	4	118.9
Kärtnten	110	1.19	107.8	0.8	1.8	23.1	4.5	3	105.9
Steiermark	112	0.75	101.5	0.1	3.8	21.2	4.3	5.2	109.6
Oberösterreich	127	0.9	113.7	0.6	6.6	19.3	3.5	3.6	113.6
Salzburg	148	0.81	123.9	0.7	6.2	19.7	3	1.8	110.9
Tirol	129	0.27	113.1	-0.1	7.3	19	3.1	3.2	110.1
Vorarlberg	147	0.7	138.7	0.4	8.4	18.2	3.4	1.9	110.6

Source: Eurostat, EDGAR database

Population ageing poses a significant challenge for Austria with strong societal impacts. Between 2012 and 2021, the population aged 65 and over experienced an annual growth rate of 15 per 1 000 residents. Over the same period, their proportion increased to 19%, which, although still among the lowest in the EU, is sizeable. Certain NUTS-3 regions in Burgenland, Steiermark, Kärnten, and Niederösterreich have the highest percentage of residents aged over 65, coupled with GDP per capita values below the EU average. Demographic shifts may influence Austria's ability to grow and address the challenges associated with an ageing population in the medium to long term.

Investment and subnational needs ahead

Cohesion policy investment priorities in Austria mainly focus on supporting the country's green and digital transition and decoupling economic growth from natural resource consumption. The priorities set out in the 2021-2027 programming period, which were adopted in 2022, remain valid under the current economic and social circumstances.

It would be beneficial for Austria to continue improving the efficiency of its research and innovation system in line with the national and regional smart specialisation strategies and to fully exploit the potential of science-business links. Further high priority areas in cohesion policy in Austria include promoting energy efficiency and reducing the country's carbon footprint including through the development and diffusion of emerging green technologies. In addition, it would be beneficial to continue investing in integrated territorial development approaches to support inclusive and sustainable local development in urban and rural areas.

Austria is also encouraged to take further steps to secure its expansion of early childhood education (see annex 14). The aim should be the possibility of mothers to return their jobs earlier, which would in turn lower disparities between men and women in terms of part-time employment and the pay gap.

Austria could benefit from the opportunities under the Strategic Technologies for Europe Platform (STEP) initiative to boost investments in critical technologies to support industry transformation.

ANNEX 18: KEY FINANCIAL SECTOR DEVELOPMENTS

Banks are the main financial intermediaries in Austria and sustainable financing is steadily expanding. In 2023, the ratio of total assets of monetary financial institutions to GDP reached 211.6%, slightly below the EU average of 257% (Table A18.1). Austria has several large credit institutions, and the two largest banking groups (Erste Group Bank and Raiffeisen Bank International) have extensive activities in central, eastern and south-eastern Europe. Although the banking sector is predominantly domestically owned (87.9% of total banking sector assets in 2023), two large banks (Unicredit Austria and BAWAG) are majority foreign owned. The use of capital-market funding by companies has remained limited, as the market-funding ratio stood at 29.6% in 2022, below its average level in the previous 5 years and markedly below the EU average of 50.8%. Sustainable financing has expanded steadily in recent years, and the share of outstanding green bonds in total bonds reached 3.7% in 2023, close to the EU average of 4%. To support the development of the green-bond market and the funding of environmentally friendly projects, the Austrian government launched its first green-bond issuance (for EUR 4 billion) in May 2022. In April 2023, the government raised an additional EUR 2.75 billion from its second green-bond issuance for environmental projects. In addition to longer-term green bonds, the Austrian government was also the first in the EU to include short-term instruments such as treasury bills and commercial paper in its green-debt programme.

Austrian banks have so far weathered well the challenges posed by weaker economic growth, higher inflation, and rising interest rates. The system-wide solvency ratio was at 19.4% in Q3-2023, just below the EU average. While the capitalisation of Austrian banks has improved in recent years, the largest banks still have lower capital buffers than their euro area peers. Asset quality has slightly deteriorated, with the non-performing-loan ratio declining to 1.8% in Q3-2023 (at the EU average). Banking sector profitability has been very strong, with return on equity at 14.2% in Q3-2023 (above the EU average of 9.9%). In the first nine months of 2023, the Austrian banking sector reported a record profit of more than EUR 11 billion, a substantial part of which originated from subsidiaries in central, eastern and south-eastern Europe. Due to efforts made by banks to reduce costs and rationalise their branch network, the cost-to-income-ratio declined to 46.1% in Q3-2023. Banks have a comfortable liquidity position and liquidity-coverage ratios above the regulatory minima. In recent years, banks have benefited from an increase in deposits, in particular retail deposits, and from abundant central bank liquidity.

Despite the overall resilience of the banking sector, several vulnerabilities require closer monitoring. Some sectors (including manufacturing) are being affected by higher energy prices and supply-chain bottlenecks. This

Table A18.1: **Financial soundness indicators**

	2017	2018	2019	2020	2021	2022	2023	EU	Median
Total assets of the banking sector (% of GDP)	219.5	217.9	219.6	253.0	246.8	227.4	211.6	257.0	184.6
Share (total assets) of the five largest banks (%)	36.1	36.0	36.0	38.5	38.7	40.1	-	-	69.6
Share (total assets) of domestic credit institutions (%)[1]	76.3	77.4	82.4	83.0	85.9	88.2	87.9	-	62.9
NFC credit growth (year-on-year % change)	6.9	9.3	7.0	5.0	8.5	7.9	2.4	-	2.4
HH credit growth (year-on-year % change)	3.0	3.6	4.3	4.5	5.9	3.8	-1.9	-	1.4
Financial soundness indicators:[1]									
- non-performing loans (% of total loans)	3.5	2.6	2.2	2.0	1.8	1.8	1.8	1.8	1.8
- capital adequacy ratio (%)	18.9	18.6	18.7	19.5	19.3	19.2	19.4	19.6	20.1
- return on equity (%)[2]	8.7	8.6	7.8	4.1	6.4	10.0	14.2	9.9	13.2
Cost-to-income ratio (%)[1]	65.5	63.8	63.1	60.8	59.3	50.3	46.1	52.8	44.9
Loan-to-deposit ratio (%)[1]	97.8	98.8	100.9	90.4	88.6	92.7	95.6	93.3	80.2
Central bank liquidity as % of liabilities	3.1	3.0	2.5	8.3	10.3	6.4	2.0	-	0.7
Private sector debt (% of GDP)	122.3	122.9	121.5	130.6	130.7	121.9	-	133.0	118.4
Long-term interest rate spread versus Bund (basis points)	26.6	28.9	31.5	28.6	28.8	56.9	64.9	107.7	104.2
Market funding ratio (%)	35.0	33.8	32.5	34.2	32.3	29.6	-	50.8	39.8
Green bonds outstanding to all bonds (%)[3]	-	-	-	0.8	1.2	2.3	3.7	4.0	2.7

1-3 | 4-10 | 11-17 | 18-24 | 24-27 — Colours indicate performance ranking among 27 EU Member States.

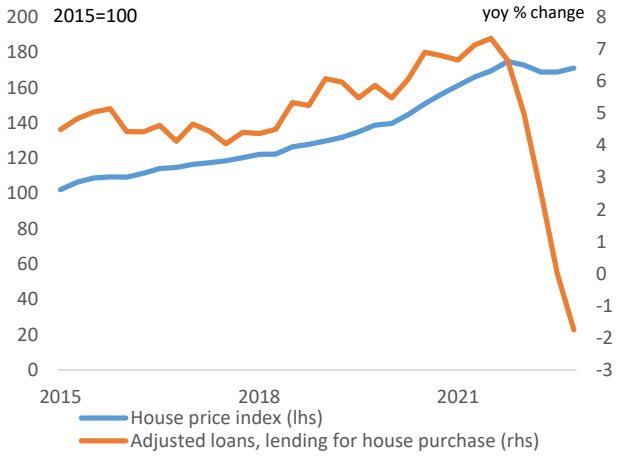
(1) Last data: Q3 2023.
(2) Data are annualised.
(3) Data available for EA countries only, EU average refers to euro area.
Source: ECB, Eurostat.

weakens the debt-servicing capacity of more vulnerable corporate borrowers and may impact the asset quality of banks in the future. Meanwhile, indebted households are also faced with higher debt-service payments and the erosion of their disposable income. Although the share of loans with variable interest rates has decreased steadily in recent years, roughly 50% of new mortgage loans to households are still granted with variable interest rates. The exposure of the Austrian banking sector to Russia (manageable from a bank-capital perspective and concentrated in one credit institution) also warrants close oversight. More recently, risks have started materialising in the commercial real-estate segment (with the failure of a large company), amidst: (i) headwinds to both borrowers' credit ratings and associated property valuations arising from higher interest rate levels; and (ii) structural shifts, such as the increasing prominence of buildings' environmental criteria or changes in demand due to online shopping and remote work.

Lending growth has been decelerating since late 2022, amidst rising interest rates. Robust demand for home ownership and corporate liquidity had driven bank lending in Austria in recent years. However, in Q3-2023, the annual growth rate in mortgage loans fell to –1.7% year-on-year (from 6.7% year-on-year in Q3-2022), while total lending to households declined by 1.9% year-on-year. The volume of outstanding consumer loans was somewhat higher than a year earlier. While lending to non-financial corporations has been driven by financing needs for inventories and working capital, it too has decelerated in the rising interest rate environment. The tightening of monetary policy also led to an increase in the cost of lending to households and companies, in particular since the second half of 2022. In particular, the interest rate for new mortgage loans increased to 4.66% in November 2023, 1.93 percentage points higher than at the beginning of 2022, and the highest level since 2009.

The housing market in Austria has been cooling since the middle of 2022, while demand for mortgage loans is fading. Over the past 10 years, residential real-estate prices doubled in Austria, which reduced the affordability of housing. Housing price increases had been particularly strong in the period from early 2020 to Q3-2022. Their recent decline coincides with slowing demand from households for mortgage loans, amid higher bank lending rates and an uncertain economic situation. Following the European Systemic Risk Board's 2021 recommendation on the Austrian real-estate sector, the Austrian Financial Market Authority introduced binding borrower-based measures to mitigate the risks associated with real-estate vulnerabilities. The adopted measures, applying to new mortgage loans from August 2022, included upper limits for loan-to-value ratios (90%), debt-service-to-income ratios (40%), and loan maturities (35 years). In April 2023, these measures were relaxed by excluding bridge loans and by increasing the minimum threshold for couples, to provide for greater operational flexibility. Private-sector debt as a percentage of GDP declined to 121.9% at the end of 2022, down from 130.7% in 2021.

Graph A18.1: **Housing prices and mortgage lending**



(1) The data on housing prices are expressed as a quarterly index (2015=100).
Source: Eurostat.

The Austrian insurance sector has remained resilient. The Austrian insurance market has traditionally been dominated by composite insurance undertakings which, in addition to life insurance, also pursue activities in at least one other balance sheet group. Like the largest banking groups, the main Austrian insurance undertakings have a significant international footprint. For several years, the low-interest-rate environment had put strains on the traditional business of life-insurance undertakings, but the increase in interest rates since July 2022 has mitigated these risks. The solvency capital requirements improved until mid-2023 when they still stood above the EU average. On investments, insurance undertakings continued to focus on interest-bearing securities, while equity investments have remained low.

This annex provides an indicator-based overview of Austria's tax system. It includes information on the tax structure (the types of tax that Austria derives most of its revenue from), the tax burden on workers, and the progressivity and the redistributive effect of the tax system. It also provides information on tax collection and compliance.

Austria's tax revenues are high in relation to GDP, with the highest contribution coming from labour taxation while growth-friendly tax bases appear to be underused. Despite a series of tax reforms (in 2005, 2010, 2015 and two in 2022), Austria remains a high-tax country with a tax-to-GDP ratio above the EU average. As indicated in Table A19.1, labour tax revenues as a percentage of GDP were among the highest in the EU in 2022. Revenues from consumption taxes and environmental taxes as a percentage of GDP were very close to the EU aggregate. Revenues from capital taxes and property taxes were below the EU aggregate. Recurrent taxes on property as a percentage of GDP in Austria were among the lowest in the EU, in part because the cadastral values serving as their tax base are largely outdated. Moreover, Austria has no inheritance, estate, wealth or gift taxes. Pollution and resources taxes only account for 1% of environmental taxes, so there could be potential to strengthen the application of the 'polluter pays' principle. Austria has only implemented two of the six main types of pollution and resources taxes (i.e. taxes on landfilling and incineration and discharges of waste into water. It does not have taxes on NOx emissions, pesticides, plastic products and fertilisers. Austria previously implemented a tax on fertilisers, but this was later abolished.

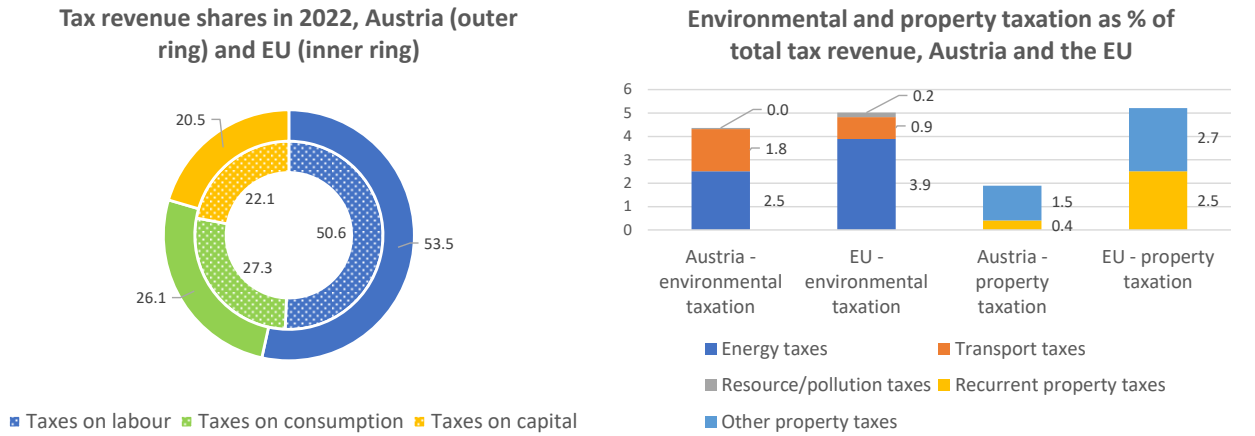
Austria's tax-benefit system helps reduce income inequality, but the labour tax burden is relatively high at various wage levels. In 2023, the labour tax wedge was substantially higher than the EU average at various income levels, i.e. for single persons at the average wage (100%) as well as at 50%, 67% and 167% of the average wage (see Graph A19.2). Second earners at a wage level of 67% of the average wage, whose spouses earn the average wage, are subject to a tax wedge that is higher than the EU average, although they are taxed only slightly more heavily than single persons at the same wage level. Overall, the tax-benefit system effectively addresses income inequality. In 2022, the tax benefit system helped reduce income inequality (as measured by the GINI coefficient) by more than the EU average.

Table A19.1:**Taxation indicators**

		Austria					EU-27				
		2010	2020	2021	2022	2023	2010	2020	2021	2022	2023
Tax structure	Total taxes (including compulsory actual social contributions) (% of GDP)	41.1	42.2	43.4	43.2		37.9	40.0	40.4	40.2	
	Labour taxes (as % of GDP)	23.1	24.2	24.2	23.1		20.0	21.3	20.7	20.3	
	Consumption taxes (as % of GDP)	11.6	11.0	11.2	11.3		10.8	10.7	11.2	11.0	
	Capital taxes (as % of GDP)	6.4	6.9	8.0	8.8		7.1	8.0	8.6	8.9	
	Of which, on income of corporations (as % of GDP)	2.0	2.2	2.8	3.5		2.4	2.5	3.0	3.4	
	Total property taxes (as % of GDP)	0.7	0.9	0.9	0.8		1.9	2.3	2.2	2.1	
	Recurrent taxes on immovable property (as % of GDP)	0.2	0.2	0.2	0.2		1.1	1.2	1.1	1.0	
	Environmental taxes as % of GDP	2.3	2.1	2.2	1.9		2.4	2.2	2.3	2.0	
Progressivity & fairness	Tax wedge at 50% of average wage (Single person) (*)	38.4	36.8	37.2	34.2	37.0	33.9	31.7	32.1	31.8	31.7
	Tax wedge at 100% of average wage (Single person) (*)	48.2	47.5	47.8	46.9	47.2	41.0	40.1	39.9	40.0	40.2
	Corporate income tax - effective average tax rates (1) (*)		23.9	23.9	23.9			19.5	19.0	19.0	
	Difference in Gini coefficient before and after taxes and cash social transfers (pensions excluded from social transfers) (2) (*)	10.3	9.7	10.1	9.5		8.6	8.1	8.2	7.9	
Tax administration & compliance	Outstanding tax arrears: total year-end tax debt (including debt considered not collectable) / total revenue (in %) (*)		10.3	8.6				40.9	35.5		
	VAT Gap (% of VAT total tax liability, VTTL)(**)	9.9	6.6	2.8				9.7	5.4		

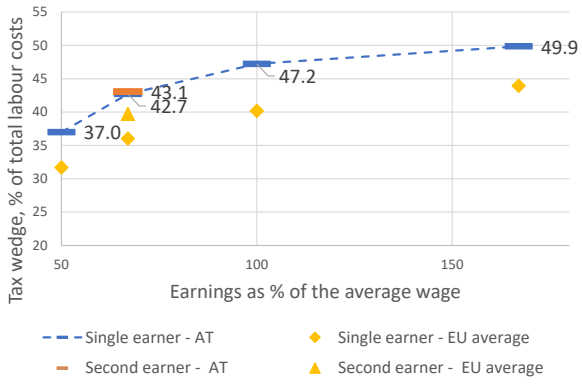
(1) Forward-looking effective tax rate (OECD).
(2) A higher value indicates a stronger redistributive impact of taxation.
(*) EU-27 simple average.
(**) Forecast value for 2022, if available. For more details on the VAT gap, see European Commission, Directorate-General for Taxation and Customs Union, 2023, *VAT gap in the EU*, https://data.europa.eu/doi/10.2778/911698.
For more data on tax revenues as well as the methodology applied, see the Data on Taxation webpage, https://ec.europa.eu/taxation_customs/taxation-1/economic-analysis-taxation/data-taxation_en.
Source: European Commission and OECD

Graph A19.1: **Tax revenues from different tax types, % of total revenue**



Note: Values for EU are GDP-weighted EU averages (EU aggregates)
Source: European Commission

Graph A19.2: **Tax wedge for single and second earners as a % of total labour costs, 2023**



The second earner tax wedge assumes a first earner at 100% of the average wage and no children. For the methodology of the tax wedge for second earners, see OECD, 2016, *Taxing Wages 2014-2015*.
Source: European Commission

Tax administration and tax compliance. Austria performs relatively well on tax compliance and tax administration, including on digitalisation. Austria is doing moderately well in digitalising its tax administration, which can help reduce tax arrears and compliance costs. Outstanding tax arrears were 8.6% of total revenue in 2021, so below the EU average. The VAT gap (the gap between revenues actually collected and the theoretical tax liability) decreased to 2.8% in 2021, which was significantly lower than the EU-wide VAT gap of 5.3%. Regarding the digitalisation of public administration, digitalisation funds have been introduced in order to accelerate digitalisation in federal administration by funding projects with cross-departmental effects. In 2023, Austria replaced the mobile phone signature with an ID Austria account. This is a modern and secure way of identifying oneself digitally, so that one can prove one's identity online and access digital services, such as FinanzOnline. In the future, companies will be able to use ID Austria in a variety of different ways.

Austria has introduced several reforms to the tax system. Austria reduced labour taxation by indexing personal income tax brackets to two thirds of inflation as from 2023 ([146]). Furthermore, as part of the eco-social tax reform of 2022 and of its Recovery and Resilience Plan (RRP), Austria introduced a price path for CO_2 emissions in sectors not currently covered by the European Emissions Trading System. In addition, as part of its RRP, Austria reduced its lowest personal income tax (PIT) rate from 25% to 20% and extended the application of the top PIT rate of 55% until 2025 for incomes above EUR 1 million. Further reducing the labour tax burden beyond a simple adjustment for inflation (especially for low-income earners) and making greater use of growth-friendly taxes (e.g. recurrent property taxes and inheritance and gift taxes) could boost economic growth and make the tax system fairer.

([146])The remaining third has to be used for further discretionary relief measures to be adopted by the ministerial council each year.

Table A20.1:**Key economic and financial indicators**

	2004-07	2008-12	2013-20	2021	2022	2023	forecast 2024	forecast 2025
Real GDP (y-o-y)	3.0	0.6	0.4	4.2	4.8	-0.8	0.3	1.6
Potential growth (y-o-y)	.	1.0	1.1	1.0	1.1	1.0	0.8	0.8
Private consumption (y-o-y)	1.9	0.9	-0.4	4.2	5.7	-0.3	1.3	2.0
Public consumption (y-o-y)	2.1	1.2	0.9	7.5	0.0	-0.4	0.1	0.5
Gross fixed capital formation (y-o-y)	1.7	-0.2	1.9	6.1	0.1	-2.4	-2.2	2.3
Exports of goods and services (y-o-y)	7.6	1.2	1.6	9.1	11.2	-0.2	1.2	2.4
Imports of goods and services (y-o-y)	6.2	1.3	1.8	14.3	7.9	-1.8	1.0	2.7
Contribution to GDP growth:								
Domestic demand (y-o-y)	1.9	0.7	0.4	5.2	2.9	-0.8	0.1	1.7
Inventories (y-o-y)	0.4	-0.1	0.0	1.3	-0.2	-0.9	0.0	0.0
Net exports (y-o-y)	0.9	0.0	0.0	-2.2	1.9	1.0	0.1	-0.1
Contribution to potential GDP growth:								
Total Labour (hours) (y-o-y)	.	0.0	0.3	0.2	0.3	0.5	0.4	0.3
Capital accumulation (y-o-y)	.	0.5	0.5	0.6	0.5	0.4	0.4	0.4
Total factor productivity (y-o-y)	.	0.5	0.2	0.2	0.2	0.1	0.1	0.2
Output gap	0.2	-0.4	-0.6	-2.2	1.4	-0.5	-1.0	-0.3
Unemployment rate	5.7	5.1	5.8	6.2	4.8	5.1	5.3	5.1
GDP deflator (y-o-y)	2.1	1.7	1.9	2.1	5.3	7.6	4.1	2.6
Harmonised index of consumer prices (HICP, y-o-y)	2.0	2.3	1.5	2.8	8.6	7.7	3.6	2.8
HICP excluding energy and unprocessed food (y-o-y)	1.6	2.0	1.8	2.1	5.7	7.8	4.2	2.9
Nominal compensation per employee (y-o-y)	2.5	2.2	2.2	2.9	4.7	7.7	7.1	3.2
Labour productivity (real, hours worked, y-o-y)	2.4	0.6	0.8	-0.5	2.3	-1.7	-0.3	0.3
Unit labour costs (ULC, whole economy, y-o-y)	0.9	2.5	2.6	0.7	2.6	9.7	7.2	2.3
Real unit labour costs (y-o-y)	-1.2	0.8	0.6	-1.4	-2.6	1.9	2.9	-0.3
Real effective exchange rate (ULC, y-o-y)	-0.4	0.4	0.8	0.5	-1.3	2.1	2.2	-0.3
Real effective exchange rate (HICP, y-o-y)	0.1	-0.4	0.6	0.3	-1.5	2.3	.	.
Net savings rate of households (net saving as percentage of net disposable income)	11.2	10.0	8.3	11.2	9.2	.	.	.
Private credit flow, consolidated (% of GDP)	5.9	2.2	3.4	7.6	5.0	.	.	.
Private sector debt, consolidated (% of GDP)	124.1	129.7	124.2	130.7	121.9	.	.	.
of which household debt, consolidated (% of GDP)	50.9	53.1	50.8	52.2	48.7	.	.	.
of which non-financial corporate debt, consolidated (% of GDP)	73.2	76.6	73.4	78.4	73.2	.	.	.
Gross non-performing debt (% of total debt instruments and total loans and advances) (1)	.	3.4	3.5	1.6	1.5	.	.	.
Corporations, net lending (+) or net borrowing (-) (% of GDP)	0.0	1.9	1.1	4.2	1.0	0.9	0.8	1.4
Corporations, gross operating surplus (% of GDP)	26.9	25.3	24.4	25.6	25.1	23.2	21.6	21.2
Households, net lending (+) or net borrowing (-) (% of GDP)	5.2	4.0	2.8	3.5	2.5	3.2	3.9	2.7
Deflated house price index (y-o-y)	0.7	2.7	4.1	9.1	3.9	-9.9	.	.
Residential investment (% of GDP)	4.4	4.3	4.5	5.4	5.6	5.1	.	.
Current account balance (% of GDP), balance of payments	2.9	2.6	2.1	1.6	-0.3	2.7	2.8	2.6
Trade balance (% of GDP), balance of payments	3.8	3.2	3.3	0.7	0.3	3.6	.	.
Terms of trade of goods and services (y-o-y)	-0.7	-0.7	0.3	-0.6	-3.8	2.5	0.7	0.2
Capital account balance (% of GDP)	-0.1	-0.1	-0.2	0.0	0.1	0.1	.	.
Net international investment position (% of GDP)	-12.8	-5.1	6.7	15.6	17.6	16.6	.	.
NENDI - NIIP excluding non-defaultable instruments (% of GDP) (2)	-9.8	-11.3	-6.7	-2.6	-1.5	-2.3	.	.
IIP liabilities excluding non-defaultable instruments (% of GDP) (2)	175.9	193.7	157.2	155.6	145.9	146.6	.	.
Export performance vs. advanced countries (% change over 5 years)	.	.	-2.6	0.2	-1.5	-0.4	.	.
Export market share, goods and services (y-o-y)	-0.5	-4.8	0.4	-4.4	-2.3	-1.2	-2.2	-1.2
Net FDI flows (% of GDP)	1.4	2.8	0.8	2.3	-0.4	1.1	.	.
General government balance (% of GDP)	-2.8	-3.2	-1.9	-5.8	-3.3	-2.7	-3.1	-2.9
Structural budget balance (% of GDP)	.	.	-1.3	-4.5	-4.1	-2.4	-2.5	-2.7
General government gross debt (% of GDP)	66.5	79.1	79.7	82.5	78.4	77.8	77.7	77.8

(1) domestic banking groups and stand-alone banks, EU and non-EU foreign-controlled subsidiaries and EU and non-EU foreign-controlled branches.
(2) NIIP excluding direct investment and portfolio equity shares.
Source: Eurostat and ECB as of 2024-5-17, where available; European Commission for forecast figures (Spring forecast 2024).

This annex assesses fiscal sustainability risks for Austria over the short, medium and long term. It follows the multi-dimensional approach of the European Commission's 2023 Debt Sustainability Monitor, updated based on the Commission 2024 spring forecast.

1 – Short-term risks to fiscal sustainability are low. The Commission's early-detection indicator (S0) does not point to any major short-term fiscal risks (Table A21.2) ([147]). Government gross financing needs are expected to decrease slightly to around 16% of GDP on average over 2024-2025 (Table A21.1, Table 1). Financial markets' perceptions of sovereign risk are positive, as confirmed by the ratings of the main agencies.

2 – Medium-term fiscal sustainability risks appear high.

The DSA baseline shows that the government debt ratio is expected to increase to relatively high levels in the medium term (reaching around 90% of GDP in 2034) (Graph 1, Table 1) ([148]). The debt increase is due to the assumed structural primary deficit (excluding changes in cost of ageing) of 1.1% of GDP as of 2024. Compared to historical data, this appears plausible as 95% of past fiscal positions were less stringent than the one assumed in the baseline (Table A21.2) ([149]). On the other hand, the debt dynamics benefit from a still favourable but declining snowball effect of around -0.9 pp. of GDP annually on average over 2025-2034.

The baseline projections are stress-tested against four alternative deterministic scenarios to assess the impact of changes in key assumptions relative to the baseline (Graph 1). Under the *historical structural primary balance (SPB) scenario* (i.e. the SPB returns to its historical 15-year average of a balanced budget) the debt ratio would be lower than under the baseline by about 8 pps. in 2034. However, under the *adverse interest-growth rate differential scenario* (i.e. the interest-growth rate differential deteriorates by 1 pp. compared with the baseline), the debt ratio would be higher than under the baseline by around 7 pps. in 2034. Under the *financial stress scenario* (i.e. interest rates temporarily increase by 1 pp. compared with the baseline) the government debt ratio would be higher by around 1 pp. in 2034. Finally, under the *lower structural primary balance scenario* (i.e. the projected cumulative improvement in the SPB over 2023-2024 is halved), the debt ratio would be almost unchanged compared with the baseline in 2034.

The stochastic projections indicate medium risk, pointing to the moderate sensitivity of these projections to plausible unforeseen events ([150]). These stochastic simulations indicate a 60% probability that the debt ratio will be higher in 2028 than in 2023, implying medium risks given the high debt level. In addition, the uncertainty surrounding the baseline debt projections (as measured by the difference between the 10th and 90th debt distribution percentiles) is medium (reaching around 30% of GDP in five years' time) (Graph 2).

3 – Long-term fiscal sustainability risks appear overall medium. This assessment is based on the combination of two fiscal gap indicators, capturing the required fiscal effort to stabilise debt (S2 indicator) and to bring debt to

([147]) The S0 is a composite indicator of short-term risk of fiscal stress. It is based on a wide range of fiscal and financial-competitiveness indicators that have proven to be a good predictor of emerging fiscal stress in the past.

([148]) The assumptions underlying the Commission's 'no-fiscal policy change' baseline include in particular: (i) a structural primary surplus, before changes in ageing costs, of 1.1% of GDP from 2024 onwards; (ii) inflation converging linearly towards the 10-year forward inflation-linked swap rate 10 years ahead (which refers to the 10-year inflation expectations 10 years ahead); (iii) the nominal short- and long-term interest rates on new and rolled over debt converging linearly from current values to market-based forward nominal rates by T+10; (iv) real GDP growth rates from the Commission 2024 spring forecast, followed by the EPC/OGWG 'T+10 methodology projections between T+3 and T+10 (average of 1.0%); (v) ageing costs in line with the 2024 Ageing Report (European Commission, Institutional Paper 279, April 2024). For information on the methodology, see the 2023 Debt Sustainability Monitor (European Commission, Institutional Paper 271, March 2024).

([149]) This assessment is based on the consolidation space indicator, which measures the frequency with which a tighter fiscal position than assumed in a given scenario has been observed in the past. Technically, this consists of looking at the percentile rank of the projected SPB within the distribution of SPBs observed in the past in the country, taking into account all available data from 1980 to 2022.

([150]) The stochastic projections show the joint impact on debt of 10,000 different shocks affecting the government's budgetary position, economic growth, interest rates and exchange rates. This covers 80% of all the simulated debt paths and therefore excludes tail events.

60% of GDP (S1 indicator) over the long term ([151]) ([152]). This assessment is driven by the unfavourable initial budgetary position and the projected increase in ageing costs. Hence, these results are conditional on the country maintaining a sizeable SPB over the long term, and duly implementing legislated pension reforms.

The S2 indicator points to medium fiscal sustainability risks. The indicator shows that, relative to the baseline, the SPB would need to improve by 3.8 pps. of GDP in 2025 to ensure debt stabilisation over the long term. This result is underpinned by the projected increase in ageing-related costs (contribution of 2.2 pps.) and an unfavourable initial budgetary position (1.5 pps.). Ageing costs' developments are primarily driven by a projected increase in long-term care (1.3 pps.) and health care spending (1.3 pps.) (Table A21.1, Table 2). While several investments and reforms in the RRP contribute to supporting the efficiency of the Austrian health and long-term care systems, additional measures may be required to further improve its fiscal sustainability.

The S1 indicator points to medium fiscal sustainability risks. The indicator shows that the country would need to improve its fiscal position by 3 pps. in 2025 to reduce its debt to 60% of GDP by 2070. This result is mainly driven by the projected increase in age-related public spending (1.6 pps.) and the unfavourable initial budgetary position (contribution of 1.0 pp.). In addition, the current distance of the government debt ratio from the 60% reference value further reduces the fiscal room for manoeuvre (0.4 pp.) (Table A21.1, Table 2).

4 – Finally, several additional risk factors need to be considered in the assessment. On the one hand, risk-increasing factors are related to the recent increase in interest rates and the fact that around 60% of the debt is held by non-residents. In addition, some contingent liability risks stem from the private sector, including via the possible materialisation of state guarantees. While the capitalisation of Austrian banks has improved in recent years, the largest banks still have lower capital buffers than their euro area peers. On the other hand, risk-mitigating factors include the lengthening of debt maturity in recent years and the large share of debt denominated in euro.

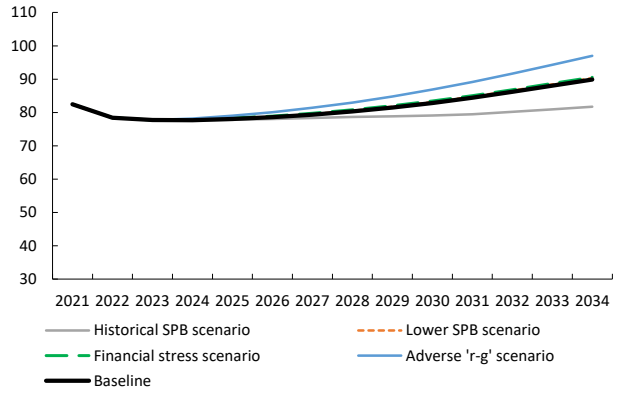
([151])The S2 fiscal sustainability indicator measures the permanent SPB adjustment in 2025 that would be required to stabilise public debt over an infinite horizon. It is complemented by the S1 indicator, which measures the permanent SPB adjustment in 2025 to bring the debt ratio to 60% by 2070. The impact of the drivers of S1 and S2 may differ due to the infinite horizon component considered in the S2 indicator. For both the S1 and S2 indicators, the risk assessment depends on the amount of fiscal consolidation needed: 'high risk' if the required effort exceeds 6 % of GDP, 'medium risk' if it is between 2% and 6% of GDP, and 'low risk' if the effort is negative or below 2% of GDP. The overall long-term risk classification combines the risk categories derived from S1 and S2. S1 may notch up the risk category derived from S2 if it signals a higher risk than S2. See the 2023 Debt Sustainability Monitor for further details.

([152])The S2 fiscal sustainability indicator measures the permanent SPB adjustment in 2025 that would be required to stabilise public debt in the long term. It is complemented by the S1 indicator, which measures the permanent SPB adjustment in 2025 to bring the debt ratio to 60% by 2070. For both the S1 and S2 indicators, the risk assessment depends on the amount of fiscal consolidation needed: 'high risk' if the required effort exceeds 6 % of GDP, 'medium risk' if it is between 2% and 6% of GDP, and 'low risk' if the effort is negative or below 2% of GDP. The overall long-term risk classification combines the risk categories derived from S1 and S2. S1 may notch up the risk category derived from S2 if it signals a higher risk than S2. See the 2023 Debt Sustainability Monitor for further details.

Table A21.1: **Debt sustainability analysis – Austria**

Table 1. Baseline debt projections	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Gross debt ratio (% of GDP)	**82.5**	**78.4**	**77.8**	**77.7**	**78.1**	**78.6**	**79.3**	**80.3**	**81.5**	**82.8**	**84.4**	**86.2**	**88.0**	**89.9**
Changes in the ratio	-0.5	-4.1	-0.6	-0.1	0.4	0.5	0.7	1.0	1.2	1.4	1.6	1.8	1.8	1.9
of which														
Primary deficit	4.7	2.3	1.5	1.7	1.6	1.8	1.9	1.9	2.0	2.1	2.2	2.3	2.4	2.4
Snowball effect	-3.9	-6.8	-3.8	-1.9	-1.6	-1.2	-1.1	-1.0	-0.8	-0.8	-0.6	-0.5	-0.5	-0.6
Stock-flow adjustments	-1.2	0.4	1.6	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross financing needs (% of GDP)	16.4	16.4	17.3	15.5	15.7	15.7	15.9	16.2	16.5	16.9	17.3	17.7	18.1	18.6

Graph 1. Deterministic debt projections



Graph 2. Stochastic debt projections 2024-2028

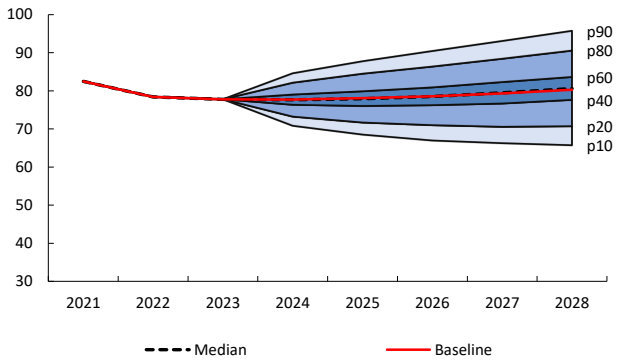


Table 2. Breakdown of the S1 and S2 sustainability gap indicators

		S1	**S2**
Overall index (pps. of GDP)		**3.0**	**3.8**
of which			
Initial budgetary position		1.0	1.5
Debt requirement		0.4	
Ageing costs		1.6	2.2
of which	*Pensions*	0.3	0.1
	Health care	0.8	1.1
	Long-term care	0.8	1.3
	Education	-0.3	-0.3

Source: Commission services.

Table A21.2: **Heat map of fiscal sustainability risks – Austria**

Short term	**Medium term - Debt sustainability analysis (DSA)**								**Long term**		
Overall (S0)	**Overall**		**Deterministic scenarios**					**Stochastic projections**	**S2**	**S1**	**Overall (S1 + S2)**
			Baseline	Historical SPB	Lower SPB	Adverse 'r-g'	Financial stress				
LOW	**HIGH**	Overall	**MEDIUM**	**MEDIUM**	**HIGH**	**HIGH**	**HIGH**	**MEDIUM**	**MEDIUM**	**MEDIUM**	**MEDIUM**
		Debt level (2034), % GDP	89.9	81.7	90.3	97.0	90.6				
		Debt peak year	2034	2034	2034	2034	2034				
		Fiscal consolidation space	95%	93%	95%	95%	95%				
		Probability of debt ratio exceeding in 2028 its 2023 level						60%			
		Difference between 90th and 10th percentiles (pps. GDP)						30.0			

(1) Debt level in 2034. Green: below 60% of GDP. Yellow: between 60% and 90%. Red: above 90%. (2) The debt peak year indicates whether debt is projected to increase overall over the next decade. Green: debt peaks early. Yellow: peak towards the middle of the projection period. Red: late peak. (3) Fiscal consolidation space measures the share of past fiscal positions in the country that were more stringent than the one assumed in the baseline. Green: high value, i.e. the assumed fiscal position is plausible by historical standards and leaves room for corrective measures if needed. Yellow: intermediate. Red: low. (4) Probability of debt ratio exceeding in 2028 its 2023 level. Green: low probability. Yellow: intermediate. Red: high (also reflecting the initial debt level). (5) the difference between the 90th and 10th percentiles measures uncertainty, based on the debt distribution under 10000 different shocks. Green, yellow and red cells indicate increasing uncertainty. (For further details on the Commission's multidimensional approach, see the 2023 Debt Sustainability Monitor)

Source: European Commission (for further details on the Commission's multidimensional approach, see the 2023 Debt Sustainability Monitor)

Source: Commission services.