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Key findings and recommendations

Slowdown of the strong post-COVID-19 economic growth; measures mitigated the impact of the crises on the social and material situation of the population

The strong post-COVID-19 economic growth supported by expansionary fiscal policy slowed with the onset of the energy crisis and increased uncertainty in the international environment; the measures to support the population during the epidemic and the period of rising energy prices significantly mitigated the impact of both crises on the social and material situation of the population. Supported by an expansionary fiscal policy, the Slovenian economy recovered quickly from the epidemic. GDP per capita in purchasing power standards reached 92% of the EU average in 2022, the highest level ever recorded. The strong economic growth started to slow in the second half of 2022 with the onset of the energy crisis and increased uncertainty in the international environment. The fiscal position, which had deteriorated in 2020 due to measures to mitigate the consequences of the epidemic, improved in 2021–2022 when the measures were lifted and the economy experienced a robust recovery. Despite this, the deficit was 3% of GDP last year. Employment peaked against a backdrop of high economic growth, leading to an exacerbation of the labour shortage problem due to economic and especially structural factors (demographic changes with lasting effects on labour supply and mismatches in the labour market) and the slow implementation of automation. In 2022, marked by energy and commodity supply shocks, inflation rose in the face of strong post-COVID-19 private consumption and labour shortages, while cost competitiveness in manufacturing deteriorated. With the help of measures to support the population during the epidemic and the energy crisis, real household disposable income increased in 2020 and 2021, followed by a slight decline in 2022 in the face of high inflation, while the financial distress of households was lower than in 2021 and well below the EU average. The positive impact of measures to mitigate the consequences of both crises is also reflected in the rates of people at risk of poverty or social exclusion and material and social deprivation, which remained close to their lowest levels in 2022 and well below the EU average. The at-risk-of-poverty rate (based on 2021 income) increased slightly but was still one of the lowest in the EU. Despite the favourable overall situation, certain vulnerable population groups (especially elderly women and low-educated older people, the unemployed, single-person households, persons with disabilities, children of parents with low levels of education, and tenants) still faced poor living conditions and were at higher risk of poverty than the EU average.

Sluggish pace of transformation to a smart and green economy

The large development gap in the area of productivity is only gradually narrowing, because of the sluggish pace of transformation to a smart and green economy. Low productivity, which reached 86% of the EU average in 2022, fully explains Slovenia's development gap in GDP per capita (in purchasing power standards). The slow productivity progress is the result of the low level of investment. Despite gradual growth in recent years, investment in R&D, ICT and other machinery and equipment, which is closely related to smart transformation, is low compared to both innovation leaders and Visegrad countries. Although there has been some progress in innovation since 2016, companies often approach modernisation and digital and green transformation in a too shallow manner, fail to make comprehensive organisational changes, and are often insufficiently aware of the benefits and urgency of ecosystem integration. In view of the labour shortage, it is also becoming increasingly urgent to accelerate the automation and restructuring of work processes. Investment in green transformation is also insufficient. Slovenia has made some progress in this respect in recent years only in the area of energy consumption and managed to narrow the gap with the EU average in energy productivity to 8% (2021). The gaps in emissions and resource productivity have been around 10% for some time. Slovenia is even less successful when it comes to renewable energy sources. Their share in total energy consumption has increased the least of all EU Member States since 2005 and the 2020 target has not been met.

Deterioration of people's health status and increased investment in healthcare and long-term care

The epidemic interrupted a long-term improving trend in the health status of the population, building a financially sustainable and resilient health and long-term care system remains an important development task for Slovenia. Key population health indicators (life expectancy, premature mortality, healthy life years) had improved in the decade before the epidemic and the number of healthy life years is higher than the EU average according to recent data. The epidemic led to a significant increase in excess mortality and affected access to health services, which was already a serious problem

before the epidemic due to the lack of general practitioners and long waiting times. At the same time, the share of out-of-pocket expenditure in household consumption has also increased. Patients with chronic non-communicable diseases were most affected by limited access to health services, leading to an increase in health inequalities. The epidemic also led to a significant increase in mental health problems, especially among children and adolescents, which were already on the rise before the epidemic hit. The situation in long-term care has further deteriorated, mainly due to staff shortages in nursing homes and poorly developed home care. Despite accelerated growth in recent years, public expenditure on long-term care still lags behind the EU average, while public expenditure on healthcare has almost reached the EU average in recent years (both as a share of GDP). Temporary and medium-term measures, supported by higher public expenditure, have been taken in 2020–2022 to mitigate problems in the healthcare and long-term care systems, with significant funding earmarked for investment in the health sector. However, improving accessibility by ensuring sufficient staff, reducing waiting times, introducing digitalisation and creating sustainable financing for both systems remain key challenges.

Recommendations for the development policy

Priority measures of development policies should be focused on the structural (smart and green) transformation of the economy for long-term, sustainable and inclusive development and a better quality of life. Setting strategic priorities is particularly important at a time when the fiscal framework is becoming much more restrictive with the reactivation of fiscal rules than in recent years, when the rules were suspended due to major economic shocks. This requires better coordination and targeting of measures and, in particular, a reconsideration of and agreement on priority areas for the expenditure of budgetary and EU funds under the cohesion policy and the Recovery and Resilience Plan. The need for structural transformation of the economy should also be taken into account in the design of temporary measures to mitigate the consequences of the energy crisis, which should gradually move from general to more targeted measures to ensure adequate price signals for energy consumption. Priority measures of development policy include:

- **accelerating productivity growth** by (a) increasing human resource development and adapting social and economic systems to persistent labour shortages (through automation and reorganisation of work, adaptation of education and training systems to future needs, an ambitious retraining programme, activation of the inactive, attracting talent, and active integration of immigrants into society); (b) accelerating government and business investment in smart (including digital and organisational) and green transformation; (c) improving the quality of the science and research system, promoting mobility of researchers, internationalisation and networking between knowledge institutions and businesses; (d) fostering the emergence of innovative start-ups; and (e) creating a stable, predictable, agile and simplified business environment that enables close cooperation between the state, businesses and other stakeholders;

- **accelerated transition to a low-carbon circular economy** by (a) taking more decisive action to increase the generation of energy from renewable sources, in particular by prioritising the siting of new projects; this will also help to increase the resilience of the energy system and reduce energy dependency, given the challenges related to the new global geostrategic situation and the need to increase energy efficiency; (b) promoting sustainable, smart and resilient mobility, in particular through measures to reduce greenhouse gas emissions from all modes of transport and by upgrading and developing the necessary infrastructure; (c) introducing new low-carbon circular business models, including more efficient waste management, thereby reducing environmental impacts and the use of limited natural resources; and (d) targeted systemic changes in the development and use of new knowledge, innovation and sustainable investment in clean technologies;

- **ensuring an inclusive, healthy and active society** by (a) improving access to health services, investing more in prevention and ensuring sustainable financing of the health system; (b) comprehensive pension reform to ensure decent pensions and fiscal sustainability of the pension system; (c) adequate regulation of financing and capacity-building of the long-term care system, especially home care; (d) more ambitious planning to reduce the risk of long-term poverty and social exclusion in the context of

social policy reform; (e) adapting workplaces to help older people remain active longer and better integrate into society and strengthening lifelong learning; and (f) ensuring quality jobs, health and safety at work and facilitating access to the labour market for young people and other people with low employment prospects;

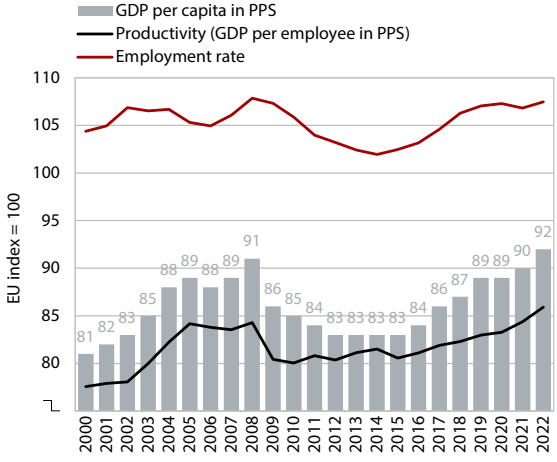
– **strengthening the developmental role of the government and its institutions** by (a) improving the strategic governance of public institutions to ensure timely identification and coordinated and effective management of development challenges; (b) ensuring a high-quality legal framework and a reduction of state regulation to increase the competitiveness of the economy and simplify the lives of citizens; and (c) restructuring general government revenues and expenditures by strengthening their developmental role, whereby it is crucial to strike the right balance between economic growth and sufficient support for economic transformation to boost productivity and address the challenges of climate change and the sustainability of public finances.

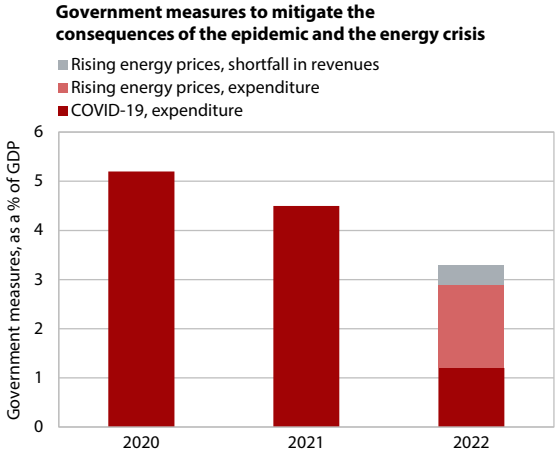
Summary of the findings according to the strategic orientations of the Slovenian Development Strategy 2030 (SDS 2030)

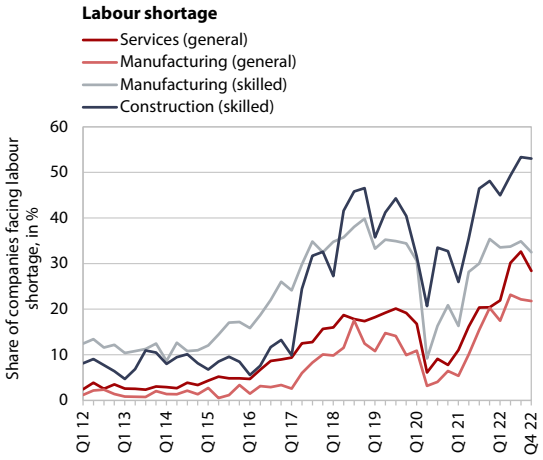
A highly productive economy that generates value added for all

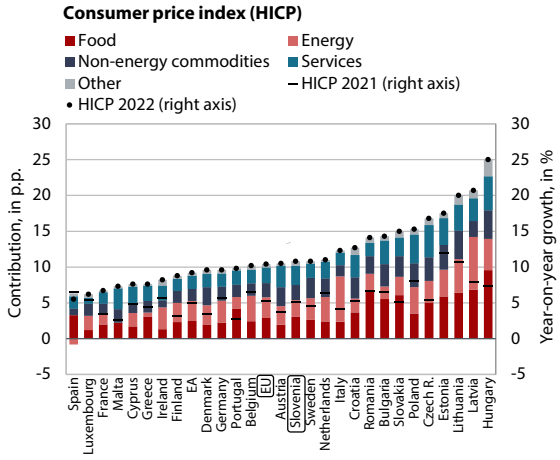
The strong rebound in economic activity after the epidemic, supported by expansionary fiscal policy, further narrowed the gap in economic development with the EU average in 2022; inflation rose on the back of high economic growth, extremely tight labour supply, commodity shocks and a deepening energy crisis. The Slovenian economy recovered quickly from the epidemic, with strong economic growth continuing in the first half of 2022, before weakening in the wake of the energy crisis and increased uncertainty in the international environment. GDP per capita in purchasing power standards reached 92% of the EU average in 2022, the highest level ever recorded. An expansionary fiscal policy also made a significant contribution to the high level of economic activity in 2021–2022 by providing massive support to businesses, enabling them to maintain their economic potential during the epidemic and in the face of the worsening energy crisis, and by providing strong support to private consumption through measures to mitigate the consequences of the epidemic and rising energy prices on the financial situation of the population. Economic growth was also boosted by public and also private investment. Employment peaked against a backdrop of strong economic activity, leading to an exacerbation of the labour shortage problem due to economic and especially structural factors (demographic changes and mismatches in the labour market) and the slow implementation of automation. Inflation rose in 2022 due to the energy and commodity supply shocks (which intensified after the start of the war in Ukraine), increased private consumption after the epidemic and labour shortages. High inflation and labour shortages have boosted nominal wage growth in the context of rapid economic recovery, while managing cost pressures has become increasingly challenging, especially in manufacturing, given the cyclical slowdown in productivity growth. The European Central Bank has responded to rising inflation by accelerating the process of monetary policy normalisation. Moreover, a shift to a more neutral fiscal stance (including with more targeted support measures) will also be crucial if we are to dampen inflation pressures. Due to the activation of the escape clause during the period of major economic shocks the fiscal stance has been expansionary, nevertheless the fiscal position improved in 2021–2022 amid strong economic growth and lifting of COVID-19 measures. Despite that, the deficit was still 3% of GDP last year. The future reactivation of fiscal rules will make the fiscal framework more restrictive again, so there is an urgent need to agree on priority areas of fiscal spending also due to the fact that certain measures have been taken in recent years that have a lasting impact on the growth of general government expenditure.

Figure 1: Strong post-COVID-19 economic growth, supported by fiscal policy measures, and further narrowing of the economic development gap with the EU average (top); the highest labour shortage ever recorded and an erosion of price stability (bottom)







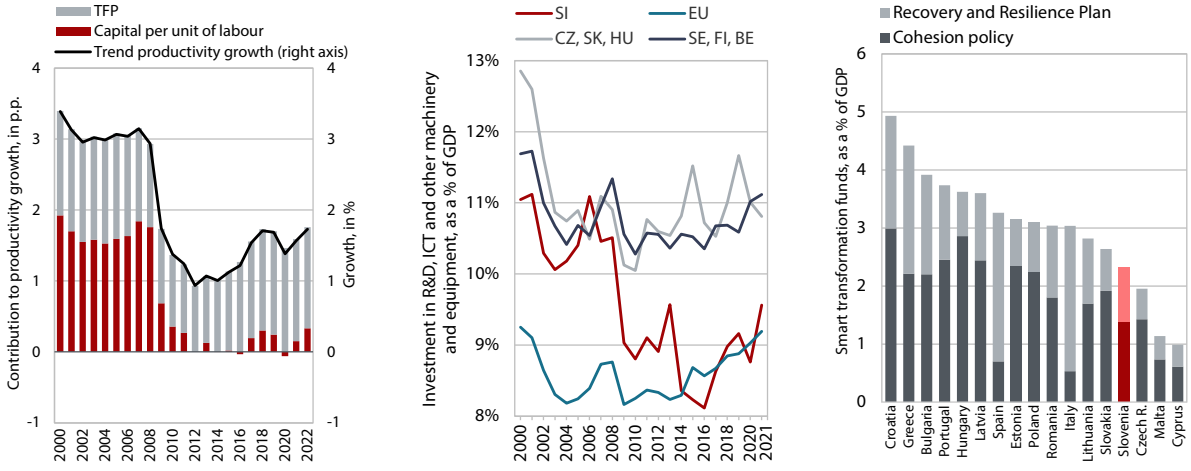


Sources: Eurostat (2023), SURS (2023); calculations and estimates by IMAD.

The large development gap in the area of productivity is only gradually narrowing, because of the sluggish pace of transformation to a smart and green economy. Low productivity, which reached 86% of the EU average in 2022, fully explains Slovenia's development gap in GDP per capita.[1] The recovery of productivity after the global financial crisis has been slow mainly due to the low level of investment (relative to GDP). The level of investment in R&D, ICT, and other machinery and equipment, which are closely related to smart transformation, is only gradually increasing from the low levels after the global financial crisis and still lags far behind the innovation leaders and also behind the Visegrad countries. Investment in green transformation (e.g. in renewable energy sources, more efficient electricity grids, sustainable mobility, increased circularity etc.) also needs to be significantly increased. Given the limited financial resources, it is crucial to strike a better balance between investments in the structural transformation of the economy and other investments. Since 2016, there have been positive developments in the area of innovation, especially among medium-sized and large companies in terms of ranking among EU Member States. However, companies often approach modernisation and digital and green transformation in a too shallow manner, do not carry out a comprehensive organisational transformation, and are insufficiently aware of the benefits of and the need for ecosystem integration. When it comes to the digitisation of medium-sized and small companies, the proportion of companies with very low digital intensity still stands out by international comparison, while in the case of large companies, where the gap is not as wide, tailored support mechanisms should be aimed primarily at the transition of companies with very high digital intensity. More attention should also be paid to the creation of innovative start-ups. Investment in smart growth and digital transformation could be increased through the use of cohesion policy funds and funds from the Recovery and Resilience Plan, especially if more emphasis is placed on promoting modernisation and restructuring.

[1] In purchasing power standards.

Figure 2: Low investment over the last decade (left); slow progress in smart transformation investments (in R&D, ICT and other machinery and equipment) (centre); modest funding from the Recovery and Resilience Plan and the cohesion policy for smart growth and digital transformation (right)

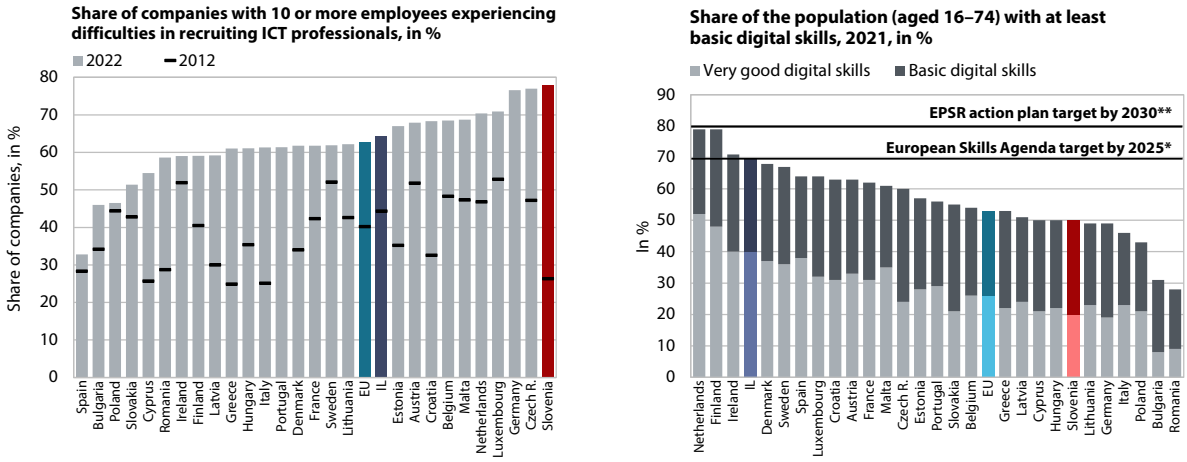


Sources: SURS (2023), Eurostat (2023), EC (2023d), Darvas et al. (2022); calculations by IMAD. Note: Sweden, Finland and Belgium are listed as innovation leaders for which data are available for the period indicated. The figure on the right shows the amount of cohesion policy funds as a share of GDP earmarked for smart growth (for policy objective 1) in 2021 and the funds from the Recovery and Resilience Fund earmarked for digital transformation, according to the Breugel classification of all digital transformation purposes. The figure shows the main recipient countries of these funds.

Learning for and through life

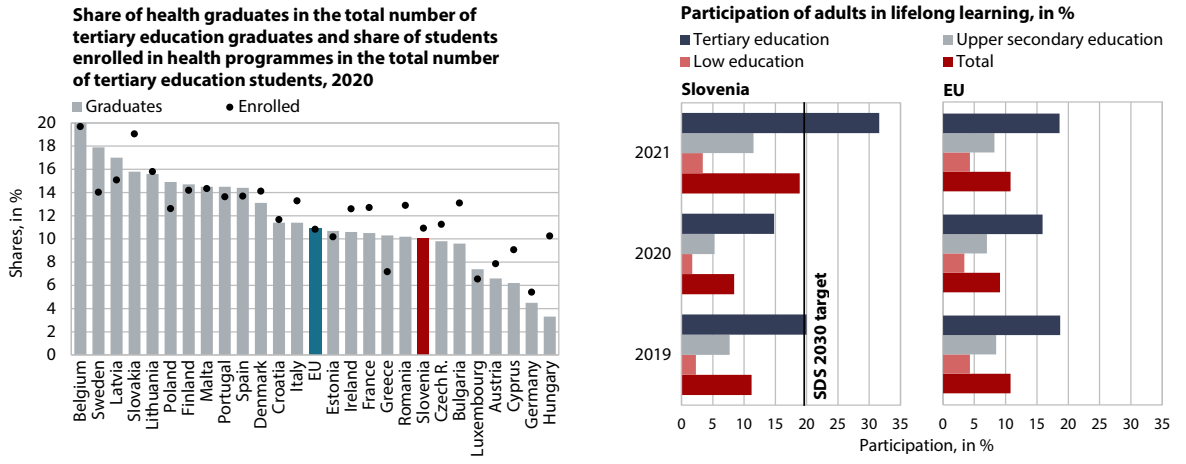
In the field of human resources, Slovenia has been slow to respond to social, environmental and economic change, despite its high share of persons with tertiary education. The share of the population with tertiary educational attainment (40.3% of 25–64 year-olds) has been above the EU average for many years and since 2020 above the SDS 2030 target (35%), but it remains far behind the most advanced economies. The learning achievement of 15-year-olds was high in 2018, according to the latest data, and Slovenia was in the top quarter of EU Member States in mathematical and scientific literacy, which is in line with the SDS 2030 target. However, some types of literacy are insufficient (financial, digital, health, etc.) and, most importantly, educational attainment, knowledge and skills acquired often do not match the requirements of the labour market. In 2021, mismatch in educational attainment was present in about one-third of the labour force, which reduces the human capital efficiency and, in addition to a general labour shortage (due to demographic change), leads to a shortage of adequately skilled human resources. In view of the needs of a long-lived society and an innovation-driven green and smart transformation of the economy, the shortage of graduates is particularly acute in health, welfare, science and technology (including ICT professionals), and education. The development of human resources for R&D (new PhDs, young researchers) is also too slow. The digital skills of adults are poor by international comparison and still far below the EU targets. After years of negative trends, adult participation in lifelong learning improved significantly in 2021 due to a significant increase in online learning, but the participation of vulnerable groups (the low-skilled, older people, the inactive and migrants) remained low. All this points to the need for strategic planning of human resource development supported by a skills forecasting system. Given the lasting impact of demographic change on the potential labour supply, accelerating the automation and reorganisation of work processes will be necessary alongside migration and integration policies to address the shortage of adequate human resources.

Figure 3: Extremely high shortage of ICT professionals (left); low level of digital skills among adults (right)



Source: Eurostat (2023). Notes: * Target of the European Skills Agenda for sustainable competitiveness, social fairness and resilience by 2025. ** Target of the European Pillar of Social Rights Action Plan by 2030.

Figure 4: Large lags in the share of health graduates and the number of students enrolled in health programmes behind top performing countries (left); increase in adult participation in lifelong learning in 2021, but with modest progress among the low educated (right)



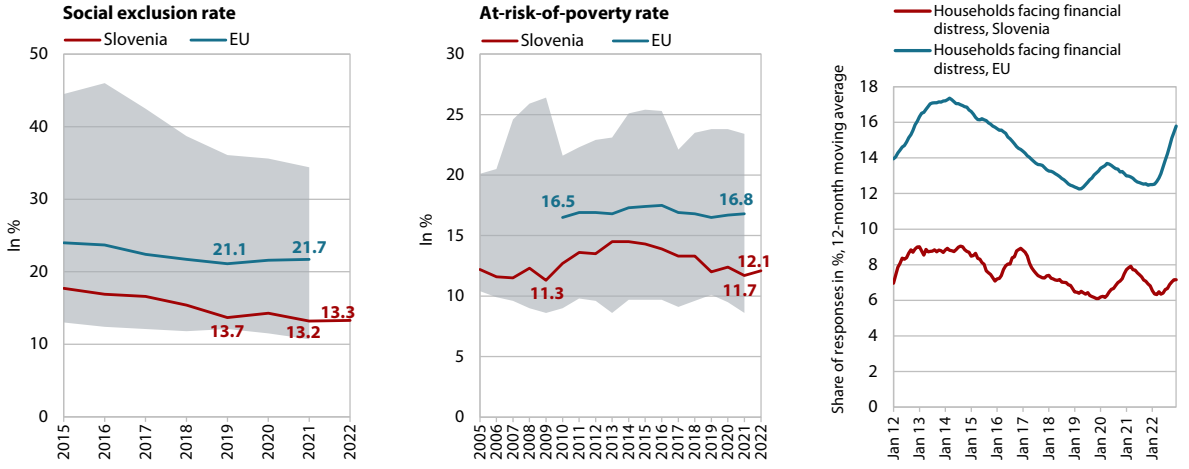
Source: Eurostat (2023).

An inclusive, healthy, safe and responsible society

The latest available indicators of social exclusion, material and social deprivation, and risk of poverty remained at lower levels than before the epidemic, and the impact of energy price increases on the financial situation of households was lower than on average in the EU in 2022. The material and social well-being of the population has improved since 2015, as employment and household disposable income have increased, and the situation of groups with low employment prospects has also improved since 2019 in the face of severe labour shortages. With the help of measures to support the population during the epidemic and the energy crisis, real household disposable income increased in 2020 and 2021, followed by a slight decline in 2022 in the face of high inflation, while the financial distress of households was lower than in 2021 and well below the EU average. In 2022, the at-risk-of-poverty and social exclusion rates and the material and social deprivation rate were still around the lowest recorded levels and well below the EU average. The at-risk-of-poverty rate (based on 2021 income) increased slightly, but it remains one of the lowest in the EU. Since 2015, income inequality has also decreased and is among the lowest in the EU, thanks to low wage inequality, a progressive income tax system and social transfers. For some time now, the risk of poverty in Slovenia has also been alleviated by social transfers to a far greater extent than on average in the EU. However, the long-standing and above-average at-risk-of-poverty rate or the poor living conditions of certain vulnerable groups (older women

and people with low levels of education, the unemployed, single-person households, disabled persons, tenants, etc.) indicate that measures need to be better targeted as part of social policy reform in order to establish transparent and verifiable eligibility criteria and enable these groups to live in dignity.

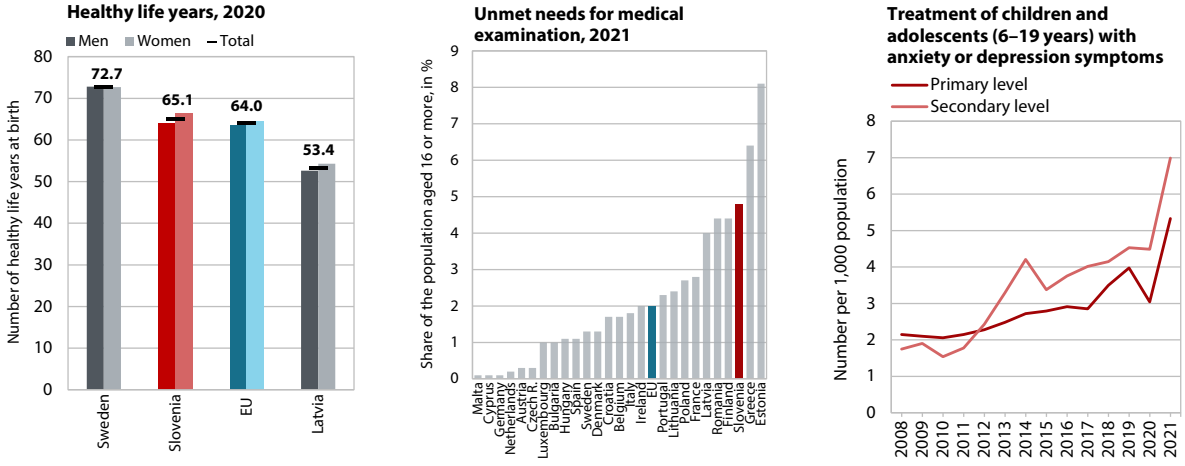
Figure 5: The at-risk-of-poverty and social exclusion rates were among the lowest in the EU also during the epidemic (left and centre); households facing financial distress due to rising prices were less affected than on average in the EU (right)



Sources: Eurostat (2023), SURS (2023h) and EC (2022k), left: EU-SILC 2022 (based on 2021 income); right: Consumer survey (households facing financial distress are defined as households needing to draw on savings or to run into debt to cover current expenditures). Note: The EU average is an estimate by Eurostat (left) and the EC (right). * The shaded area shows the range between the EU Member States with the lowest and the highest indicator values. For more on data comparability, see Appendix 1.

The epidemic had an impact on the health status of the population, and building a financially sustainable and resilient health and long-term care system remains an important development task for Slovenia. Key population health indicators had improved in the decade before the epidemic. Avoidable mortality fell below the EU average in 2019 and only mortality due to unhealthy lifestyles remained high. Premature mortality due to environmental pollution has fallen by a quarter in ten years and is close to the EU average. Healthy life expectancy is above the EU average according to the latest (methodologically revised) data. The epidemic further increased excess mortality and worsened access to health services, which deteriorated due to the shortage of general practitioners and long waiting times. At the same time, the share of out-of-pocket expenditure on healthcare in household consumption has also increased. Patients with chronic non-communicable diseases were most affected by limited access to health services, leading to an increase in health inequalities. The epidemic has also led to a significant increase in mental health problems, especially among children and adolescents, which were already on the rise before the epidemic hit. The situation in long-term care has continued to deteriorate, mainly due to staff shortages in nursing homes and poorly developed home care. Despite accelerated growth in recent years, public expenditure on long-term care still lags behind the EU average, while public expenditure on healthcare has almost reached the EU average in recent years (both as a share of GDP). Temporary and medium-term measures, supported by increased spending from the state budget, have been taken to mitigate problems in the health system and long-term care, with significant funding earmarked for investment in the health sector in 2020–2022. However, improving accessibility by ensuring sufficient staff, reducing waiting times, introducing digitalisation and creating sustainable financing for both systems remain key challenges.

Figure 6: Healthy life expectancy higher than the EU average (left); high unmet need for medical examinations (left); growing mental health problems among children (right)

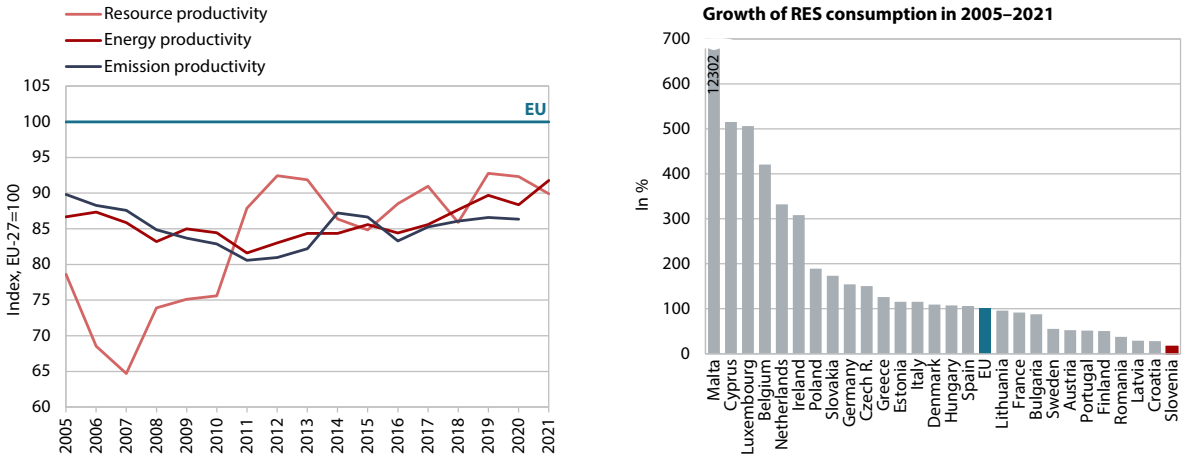


Sources: Eurostat (2023), SURS (2023h) and EC (2022k), left: EU-SILC 2022 (based on 2021 income); right: Consumer survey (households facing financial distress are defined as households needing to draw on savings or to run into debt to cover current expenditures). Note: The EU average is an estimate by Eurostat (left) and the EC (right). * The shaded area shows the range between the EU Member States with the lowest and the highest indicator values. For more on data comparability, see Appendix 1.

A well-preserved and healthy natural environment

Progress towards a low-carbon circular economy is too slow and will require significantly more resources in the future. Slovenia's natural resources, such as soil and water, are generally well preserved and biodiversity is relatively high, with a large area of protected areas. More problematic is air quality, measured by particulate matter concentration, the main sources of which are the burning of wood biomass in household furnaces and road traffic. However, natural resources are being depleted much faster than they can be replenished. The resulting large ecological deficit, which is higher in Slovenia than the European average, is mainly due to the country's high carbon footprint. Only in the field of energy use has some progress been made. Here, growth in energy productivity (GDP per unit of energy consumed) has accelerated, mainly due to improvements in the manufacturing sector after the global financial crisis. The lag behind the EU average declined to 8% by 2021. Emissions productivity is also improving, but the gap with the EU average has remained unchanged at just over 10% since the middle of the last decade, and emissions from transport in particular remain high. Growth in the use of renewable energy sources is far too low. Their share in total energy consumption has increased more slowly than in any other EU Member State since 2005, and the 2020 target has not been met. Progress in the transition to a circular economy has also been slow. Improvements in resource productivity (GDP per unit of material consumed) have slowed over the last decade, and the gap with the EU average remains at around 10%. The share of recycled materials in total consumption is low at 11% and needs to be increased, as in most other EU Member States, not only because of the growing volume of waste, but also because of limited natural resources, their higher prices and supply disruptions. If the current pace of decoupling economic growth from resource use is maintained, it will be difficult to meet national and EU climate neutrality targets. In 2022, the energy crisis exacerbated these challenges, and finding solutions to increase energy self-sufficiency could also be a good opportunity to restructure towards a low-carbon and circular economy. However, many of the temporary cuts in environmental taxes to mitigate the consequences of rising energy prices do not contribute to the green transition targets. Given the urgency to accelerate the green transition, in addition to the efficient use of all available (including European) resources, additional systemic measures are needed, supported by (public and private) sustainable investment funds.

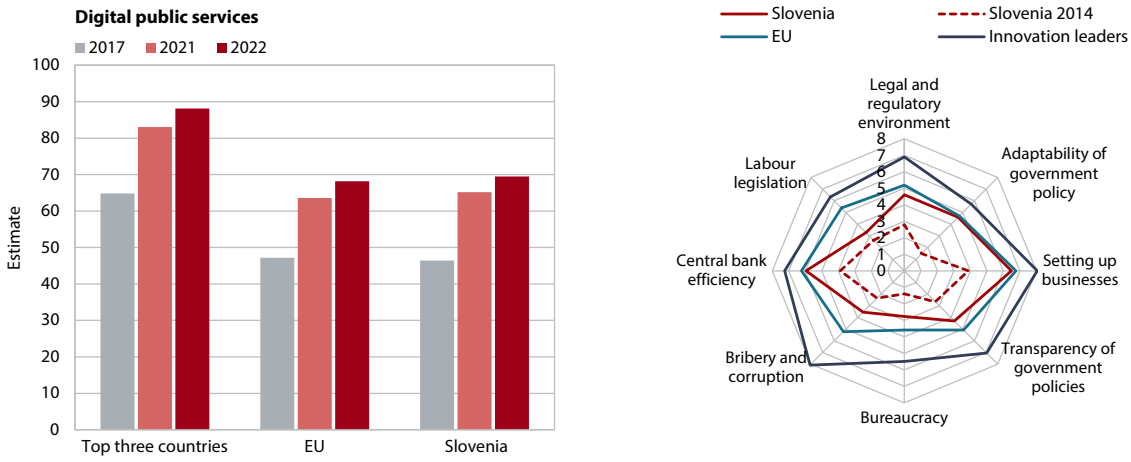
Figure 7: The gaps with the EU average in emissions, energy and resource productivity remain (left); the increase in the use of renewable energy in 2005–2021 was the smallest among all EU Member States (right)



Source: Eurostat (2023); calculations by IMAD. Note: Resource, energy and emission productivity are defined as GDP per unit of consumed material/energy/greenhouse gas emissions.

Slovenia's institutional competitiveness has gradually improved over time, but the main weaknesses remain and are mainly related to the efficiency of public administration operations. Slovenia has taken important steps towards improving government efficiency, in particular in the digitalisation of public services and the development of e-government, the introduction of quality standards in public administration bodies, and the efficiency of the judiciary. Measures have also been taken to reduce administrative burdens and prevent corruption, and social dialogue resumed in 2022 after a one-year hiatus. Despite progress, however, the gap with the EU average in most areas of governance and public services is narrowing only slowly, as measured by international indicators of institutional competitiveness. Businesses cite excessive bureaucracy (regulatory density) and lack of a conducive business environment (e.g. a perceived high tax burden on labour and frequent changes in tax legislation) as the main obstacles to doing business. The predictability of the business environment and legislation (frequent and rapid changes) and the lengthiness of some procedures in the business environment (for example the process for obtaining construction permits or employment of foreigners) and in the judiciary remain a barrier. The participation of the public and key stakeholders (e.g. networking between companies, knowledge institutions and public institutions) in the adoption, implementation and monitoring of measures and legislation should continue to be strengthened. Trust in public institutions and the rule of law remains relatively low, and the perceptions of corruption are high and have increased slightly in recent years. The results are more favourable in the areas of safety and global responsibility. According to the latest available data for 2021, Slovenia has been one of the safest and most peaceful countries in the world, which was also one of the SDS targets. Slovenia is also among the most successful countries in achieving in the sustainable development goals (SDGs) of the 2030 Agenda. In recent years, Slovenia has played an active role in various international organisations and the EU, of particular importance being its EU presidency in 2021.

Figure 8: Progress in digital public services in recent years (left); lagging behind the innovation leaders and the EU average on most institutional competitiveness indicators (right)



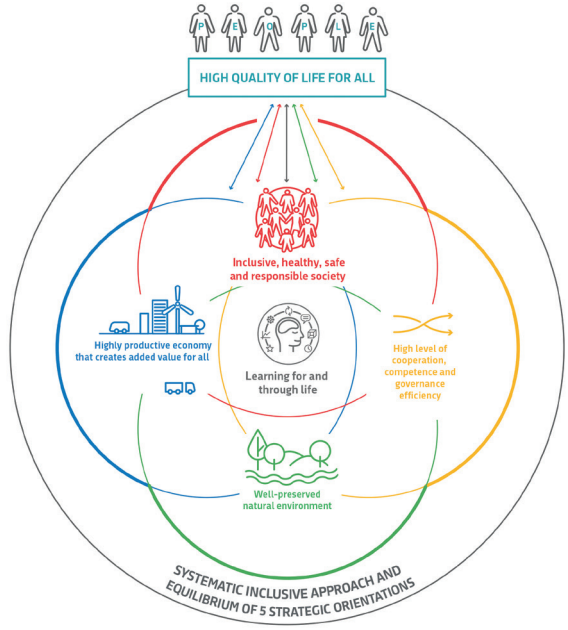
Sources: Eurostat (2023), IMD (2022); calculations by IMAD. Note: The top three countries in the figure on the left are Estonia, Finland and Malta. In the figure on the right, the higher the score, the better. With reference to more detailed indicators, the maximum score is 10; all indicators are survey-based. The survey takes place at the beginning of the second quarter of the year in which the results are published. The innovation leaders are Sweden, Finland, Denmark, Belgium and the Netherlands.

Introductory remarks

The Development Report is a document monitoring the implementation of the Slovenian Development Strategy (SDS). The basic structure of the report (the main chapters) follows the five strategic orientations that the SDS identified as crucial for achieving its primary goal, which is to ensure a high quality of life for all: (a) a highly productive economy that generates value added for all, (b) learning for and through life, (c) an inclusive, healthy, safe and responsible society, (d) a well-preserved natural environment, and (e) a high level of cooperation, competence and governance efficiency. The SDS also set 12 development goals in interconnected and interdependent areas identified as essential for the implementation of the strategic orientations. The report tracks the implementation of each development goal (subsections of the report) within the strategic orientation with which it is most strongly linked, although each individual goal can contribute to the realisation of several strategic orientations (Figure 9). When the report was prepared, data for most indicators were available for 2021 and for some also for 2022, but the data availability means that the impact of the energy crisis could not yet be fully analysed.

The appendix to the report presents indicators for monitoring the implementation of the SDS in more detail. The 30 performance indicators for which the SDS set target values for 2030 are complemented by indicators that provide a detailed overview of progress in individual areas. The indicators represent the main analytical basis of the report, which is complemented by an overview of other data, studies and research reports, particularly in those areas where no appropriate indicators for comparisons between countries or over time are available. The report uses data sources released by 31 March 2023. Due to the UK's withdrawal from the EU in 2020, we have moved to the average of 27 countries since the Development Report 2021 when comparing developments in Slovenia and the EU. As the EU average is also used in some numerical SDS targets, the value of individual targets has changed slightly. The EU-13 refers to the average of new Member States that have joined the EU since 2003; EU-14 refers to the average of countries that were already in the EU before 2004 (the so-called old Member States) and EU-22 to the average of those that are also members of the OECD (this comparison is used in the case of OECD data sources, which do not generally include all EU Member States). When considering the SDS target in the area of innovation, i.e. to be among the innovation leaders (according to the European Innovation Index), we also compared the situation in Slovenia with the average situation in the innovation leaders, where appropriate (IL – innovation leaders, i.e. Sweden, Finland, Denmark, the Netherlands and Belgium).

Figure 9: Primary objective and strategic orientations of the Slovenian Development Strategy 2030



Source: SVRK (2017).

1 A highly productive economy that creates value added for all

The Slovenian economy recovered quickly from the epidemic, with strong economic growth continuing into the first half of 2022 before moderating as a result of the energy crisis. In 2022, GDP per capita in PPS reached 92% of the EU average, the highest percentage to date. The strong economic recovery in 2021–2022 was supported by an expansionary fiscal policy that managed to maintain the country's economic potential during the COVID-19 crisis through an extensive aid package for businesses and strong support to private consumption through measures to mitigate the impact of the epidemic and rising energy prices on the financial situation of the population. With the strong economic growth, employment increased to its highest level to date, which led to a serious labour shortage which, in addition to the economic boom, is largely due to structural factors (particularly demographic changes and mismatches on the labour market). The supply shock in energy and raw materials (which intensified after the outbreak of the war in Ukraine), increased domestic demand after the epidemic, and labour shortage were followed by a rise in inflation in 2022. High inflation and labour shortage, against a backdrop of swift economic recovery, stimulated nominal wage growth, and managing cost pressures with the simultaneous cyclical moderation in productivity growth became increasingly challenging, especially in manufacturing.

After its initial drop at the beginning of the epidemic, productivity also quickly recovered but still reached only 86% of the EU average in 2022. The slow recovery in productivity following the global financial crisis stems mainly from the low volume of investments (relative to GDP), which is growing but is still yet to reach the pre-2008 level. Investments in smart

transformation (R&D, ICT, and other machinery and equipment) have only been increasing gradually from low levels following the global financial crisis and are still lagging behind not only the innovation leaders but also the Visegrad Group. Investments will also need to be made in the green transition (including in infrastructure, e.g. renewable energy sources, electricity grid capacities, sustainable mobility, the energy renovation of buildings, etc.). A positive trend has been seen in innovations since 2016. However, companies' approach to modernisation is still too shallow and lacks a comprehensive approach to organisational transformation as well as digital and green transition, and companies fail to exploit the full potential of ecosystem integration. In terms of digitalisation and innovation on an international scale, small and medium-sized enterprises are the furthest behind, so support mechanisms must be better adapted to the needs of individual groups of companies and greater attention must be paid to the emergence of new innovative companies. One opportunity to increase investments in smart growth and digital transformation is utilization of funds under the cohesion policy and the Recovery and Resilience Plan, but Slovenia allocated less funding relative to GDP for these purposes compared to its competitors from southern and eastern Europe.

1.1 Economic stability

Economic stability (Development Goal 5):

The content of the goal is to ensure economic stability, which is a key condition for reducing the development gap with more developed countries and increasing the quality of life for all. The basis of economic stability is a well-performing economy which maintains key macroeconomic balances. The achievement and preservation thereof require appropriate economic policy action throughout the economic cycle, long-term sustainability of public finances, a stable and competitive financial sector, and balanced regional development. With regard to economic stability, SDS 2030 highlights competitiveness and innovation along with sustainable and inclusive aspects of economic development. These are dealt with in depth in other SDS development goals, namely goals 6 (competitiveness and innovation), 3 and 7 (inclusive development), and 8 and 9 (sustainable development).

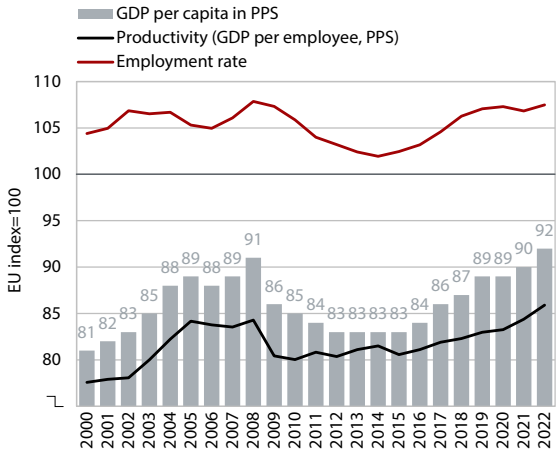
SDS 2030 performance indicators for Development Goal 5:

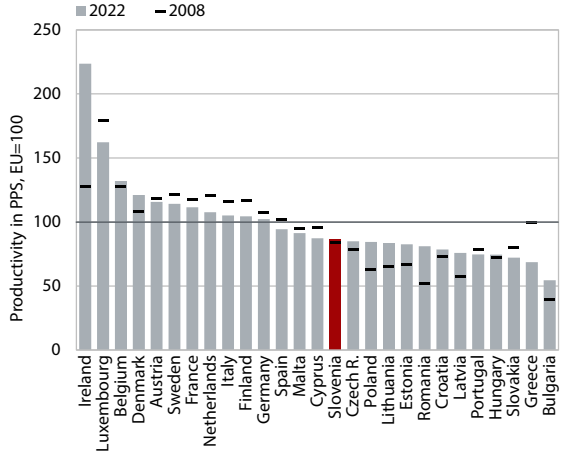
	Latest data		Target value for 2030
	Slovenia	EU average	
GDP per capita (at PPS), index EU-27 = 100	92 (2022)	100 (2022)	100
General government debt, in % GDP	69.9 (2022)	86.0 (2022)[1]	60

[1] The data for the EU are the EC forecast for 2022 (EC, 2022m).

In 2022, Slovenia's level of economic development measured in GDP per capita in PPS exceeded for the first time the highest level recorded before the outbreak of the global financial crisis in 2008. In 2022, GDP per capita in PPS reached 92% of the EU average, one percentage point higher than the previous highest percentage from 2008. The gap to the EU average has been closing since 2016, after it widened considerably during the global financial crisis. Initially, the renewed economic catch-up stemmed mainly from a higher employment rate,[2] but recently, amid increasing labour shortage, it has been based on productivity growth.[3] In 2022, the latter also exceeded the highest relative level to date, recorded in 2008, but it remains low, at 86% of the EU average (Figure 10). Conversely, the employment rate far exceeds the EU average (by 7% in 2022) and still has the potential to increase mainly in older age groups of the working age population (especially the 60–64 age group). A rise in productivity is therefore essential to further close the development gap. In a situation where, due to the energy crisis, high inflation and labour shortage, the economy is facing high cost pressures, it is of key importance to focus efforts not only on the necessary short-term containment of costs, but also on faster restructuring into a highly innovative (digital), low-carbon circular economy. Only these structural changes will ensure an increase in the economy's added value (while reducing the carbon footprint) to

Figure 10: Slovenia's lower level of economic development compared to the EU average is due to low productivity

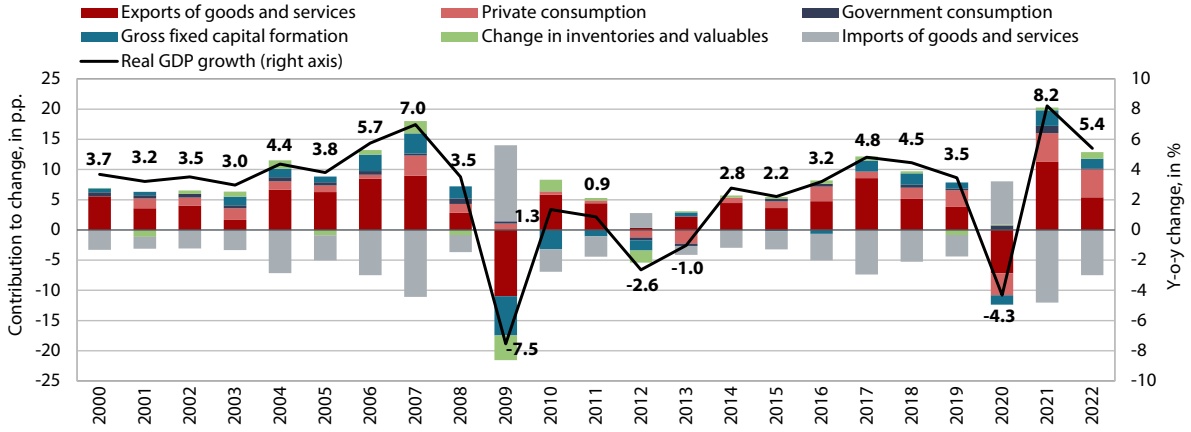




Source: Eurostat (2023); calculations by IMAD.

[2] The percentage of employed persons aged 15–65.
[3] Gross domestic product per employee.

Figure 11: Following a strong rebound in 2021, economic growth in 2022 remained high



Source: SURS (2023h).

successfully withstand the cost pressures that are a result of limited natural resources, the green transition and demographic changes and, consequently, maintain economic competitiveness in the long run.

Following a swift recovery after the initial fall at the onset of the epidemic, economic activity slowed in the second half of 2022, especially due to the energy crisis. After several years of GDP growth that followed the economic downturn during the global financial crisis, GDP decreased considerably in 2020 as a result of the epidemic and associated restrictions. All GDP components, with the exception of government consumption, declined; the decrease was most pronounced in contact-intensive services. With a strong rebound, economic activity in 2021 exceeded the pre-epidemic level. Growth largely stemmed from private consumption, supported by government measures and a considerable reduction in the savings rate. In 2022, strong growth mainly stemmed from the first half of the year and the post-epidemic recovery, while the cooling of the international environment due to the war in Ukraine and the energy crisis, together with the inflationary impact on purchasing power, contributed to a significant slowdown by the end of the year. Amid the easing of containment measures at the beginning of the year and high employment, private consumption growth remained strong in the year as a whole. The growth of investment and construction activity was supported primarily by public investment, which was also stimulated by EU funds. The slowdown in foreign demand growth, high inflation, cost pressures (see also Section 1.2.1) and high uncertainty had a marked impact on economic activity towards the end of the year, when the situation in the export-oriented part of the economy deteriorated significantly, while the growth in household consumption, private investment and trade in services slowed.

Owing to extensive measures to mitigate the negative consequences of both crises, economic trends during the epidemic and in the first year of the energy crisis were more favourable than the EU average. The COVID-19 crisis was very different from the global financial crisis that began in 2008,[4] not only in terms of the shock it caused, but also in terms of the economy's preparedness for the crisis and policy responses. The key factors that prevented a deeper decline in economic activity and employment in 2020 and enabled a faster recovery in 2021 were the relatively good financial condition of the Slovenian economy before the crisis and extensive stimulating economic policy measures[5,6] At the beginning of 2022 came the war in Ukraine, causing an abrupt rise in energy prices,[7] which were mitigated by the Government with general (reduction of excise duties, VAT and other levies on energy products) and targeted (measures to support the economy, energy-intensive enterprises and the agricultural sector, and various energy subsidies for the most vulnerable population groups) support measures, amounting to 1.2% of GDP (of which 1% of GDP with an impact on the general government balance). Due to the scale of the crisis associated with the epidemic, fiscal assistance measures at the EU level were also taken: first a fiscal package aimed at mitigating the consequences of the crisis in the short run, followed by extensive assistance in the form of an extraordinary recovery instrument – "NextGenerationEU". The main purpose of the latter is to tackle the development challenges of digitalisation and green transformation, including by promoting investment. The European Commission also

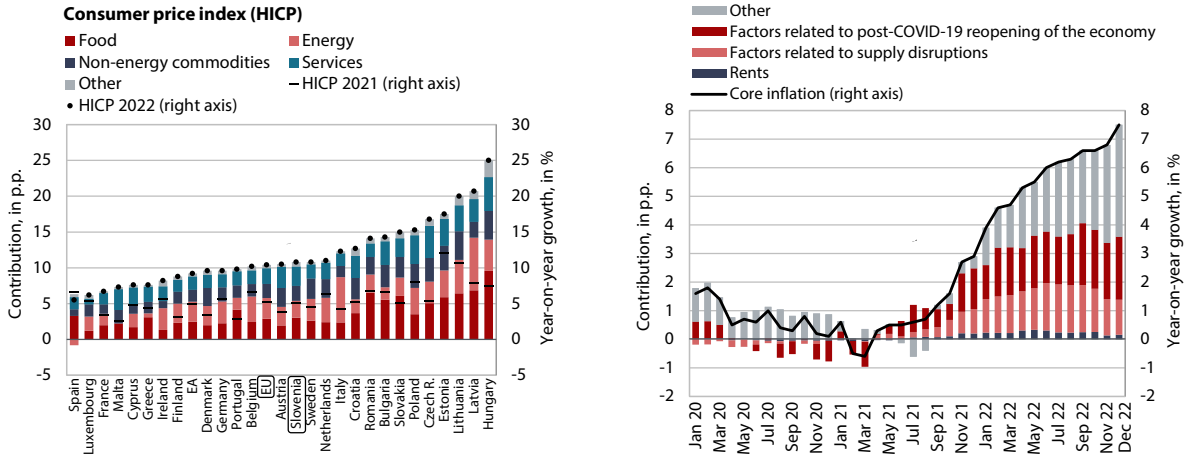
[4] The recession after the financial crisis could be described as the result of demand shocks stemming from a major deleveraging effort by households, governments, banks and businesses. The pandemic is affecting the economy both through demand and supply shocks striking at the same time (Codogno and van den Noord, 2020).

[5] In particular, fiscal aid measures aimed at stabilising the labour market situation and aiding businesses with liquidity problems; this is described in more detail in the Spring Forecast of Economic Trends (IMAD, 2022b).

[6] According to IMAD estimates, in the absence of measures, the drop in economic activity in 2020 was expected to be deeper by at least 4 p.p. and the measures contributed at least 3.4 p.p. to the 2021 growth (IMAD, 2022b).

[7] In the light of increased global demand for energy, a sharp rise in energy prices started in the second half of 2021 due to a combination of several factors, including the recovery of economies after the COVID-19 epidemic (IMAD, 2022b).

Figure 12: Rising consumer prices (HICP) in 2022 both in Slovenia and the EU were mostly caused by higher energy and food prices (left); high core inflation was largely caused by increased post-COVID spending, in addition to the supply shock (right)



Sources: Eurostat (2023); calculations by IMAD (left); SURS (2023); calculations by IMAD (right). Note: Figure on the left: in addition to differing growth rates in individual countries, contributions also differ due to different weights. Figure on the right: The classification from the ECB Bulletin 7/2022 (Goncalves and Koester, 2022) was used, classifying the following segments as components affected by factors associated with supply disruptions: new and second-hand motor cars, spare parts and accessories for personal transport equipment, and household furnishings and equipment, including major household appliances. The components affected by factors associated with the post-COVID reopening of the economy comprise clothing and footwear, recreation and culture, hotels and restaurants, and domestic and international flights. The methodology for this grouping was used by Shapiro (2022), who classified goods and services into individual groups based on an analysis of the movement of prices and industries (volumes). For goods and services marked by post-COVID recovery factors, the correlation was positive. For goods and services marked by supply disruption factors, the correlation was negative and statistically typical. Goods and services where the correlation between prices and volumes is not statistically typical are classified as "other".

responded to growing energy prices, first in October 2021 (EC, 2021f) with a recovery and support toolbox,[8] then in May 2022 with a presentation of the REPowerEU Plan (EC, 2022r), proposing an additional set of measures due to further increases in energy prices since the beginning of the war in Ukraine.[9]

After ten years of surplus, the current account balance showed a deficit in 2022 (-0.4% of GDP). Given the favourable conditions in the international environment and increased competitiveness of exporters in the 2012–2019 period, the current account surplus was relatively high. Due to a considerable shock to domestic consumption as a result of the epidemic and related extensive spending in the private sector, the 2020 surplus was the highest to date (EUR 3.6 billion or 7.6% of GDP). This was followed by a significant drop in the 2021–2022 period that, amid deteriorated terms of trade, was mainly due to the trade in goods[10] or, in terms of the savings and investment gap, a decrease in net household savings, and an increase in net investments of non-financial corporations.

Much like in the EU, the rise in consumer prices started gradually in the second half of 2021 and took a sharp turn upwards in 2022 when the war in Ukraine broke out. Shocks on the energy market and supply chain problems first produced an increase in energy prices and the prices of non-energy, especially durable, industrial goods. As the situation continued to intensify, price pressures began to spill over to other groups of goods and services, and the eruption of the war in Ukraine increased price pressures further. Tightened conditions on the energy market, the rise in prices of other input raw materials and the war in Ukraine also brought about a steep rise in food prices, which rose by 18.9% year-on-year in December and contributed 2.9 p.p. to inflation.[11] All food product groups are rising faster than the CPI. With strong economic activity, major household spending, partly related to the Government's financial measures and the lifting of restrictions to prevent the spread of the epidemic (see also Figure 12), also had a strong impact on price increases. Inflation in Slovenia therefore reached the highest level in mid-2022 and has remained at around 10% since autumn last year. At the end of last year, as a result of a higher base, moderating prices on global energy markets and Government measures to mitigate the consequences of high energy prices,[12] the year-on-year rise in energy

[8] The set of measures includes immediate measures to protect consumers and businesses (e.g. income support for vulnerable groups and state aid) and medium-term measures in the area of storage capacities, increasing renewable energy production, etc.

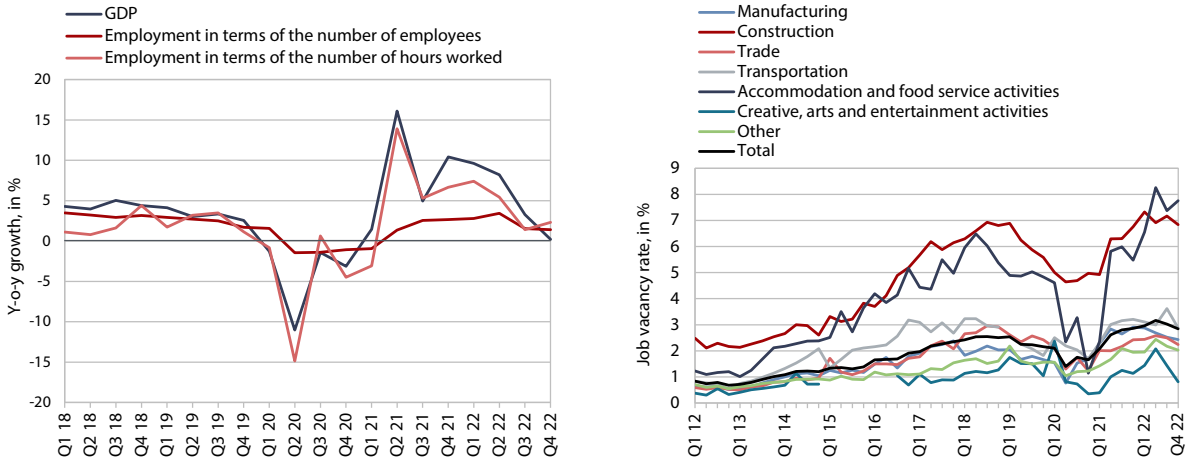
[9] An additional set of actions proposed under this plan focuses on energy savings, diversification of energy supply, acceleration of fossil fuel substitution, and a smart combination of investments and reforms (a dedicated chapter with new actions to deliver on the REPowerEU objectives to be added in the Recovery and Resilience Plan).

[10] Due to higher growth in domestic consumption compared to growth in foreign demand and the high prices of energy, raw materials and industrial products, growth in imports was higher than growth in exports.

[11] In December 2022, inflation largely stemmed from the prices of goods from the fresh and processed meat group (0.5% p.p.), which rose by 19.4%, while the highest growth (34.3%) was recorded for goods from the oils and fats group.

[12] In order to mitigate the consequences of high energy prices, the Government adopted several measures which, according to IMAD estimates, reduced the 2022 inflation by approximately 2 p.p. The estimate includes measures aimed at regulating motor fuel prices, capping prices and various tax changes: in mid-2022, the motor fuel price regulation system was amended from a fixed price to a model-

Figure 13: The labour market reacted to a decline in economic activity during the epidemic mainly with a reduction in hours worked (left); the highest vacancy rate was recorded in construction and accommodation and food service activities (right)



Source: SURS (2023b). Note: The vacancy rate is the ratio between vacancies and all (vacant and occupied) positions.

prices started to slow, ending at 15.9% in December. Growth in the prices of non-energy industrial goods also slowed somewhat with a gradual moderation of growth in the prices of durable goods. Due to greater demand, higher cost pressures associated with soaring prices and wage pressures as a result of labour shortage in certain service sectors, growth in prices of services also increased (7.2%).

The labour market quickly recovered after the COVID-19 epidemic, while employment reached a historical high and unemployment a historical low at the end of 2022. The epidemic put an end to several years of favourable labour market trends, but the adoption of intervention job-retention measures largely mitigated the effect of the economic downturn on the labour market, while the adjustment had a more significant impact on the number of hours worked (Figure 13, left). A large rebound in economic activity after 2020 and labour shortage, which was already high before the epidemic, led to a quick recovery of the labour market. With increased labour demand, employment in the third quarter of 2021 already exceeded the level at the end of 2019, and participation also returned to the pre-crisis level. Although employment growth moderated somewhat by the end of 2022 due to cooling economic activity, the number of employed persons at the end of the year was the largest (935,000, 2.0% more than the year before) and the number of registered unemployed persons the lowest (53,181 persons or one-fifth less than the year before) to date.

With a high employment rate, the labour market is facing a labour shortage, which is already having a strong impact on companies' operations. This lack of human resources, both in Slovenia and in other developed countries, is caused by cyclic and structural factors. The latter mainly includes the ageing of the workforce (and consequently a large number of employees transitioning into retirement), which will have a permanent impact on the supply of workers (Figure 14, right). The structural factors of labour shortage also include changes in the structure of demand by skills (particularly in the light of technological advancement and the green and digital transitions), changes in migration flows, and less favourable working conditions in certain sectors or professions (EC, 2022b). An insufficient supply of human resources is reflected in the vacancy rate,[13] which is the highest in labour-intensive sectors (manufacturing and construction), but also high in all other sectors (Figure 13, right). Long-term labour shortage is affecting companies' operations, as reported by more than half of all construction and a third of all manufacturing companies (Figure 14, left). Half of the companies that are unable to fill vacancies impose overtime, while one-fifth of them retrain their employees, outsource their work or reject orders (ESS, 2022a).[14] The size of domestic workforce that could potentially be available for employment (including the unemployed and inactive workers) is measured with the non-employment index;[15]

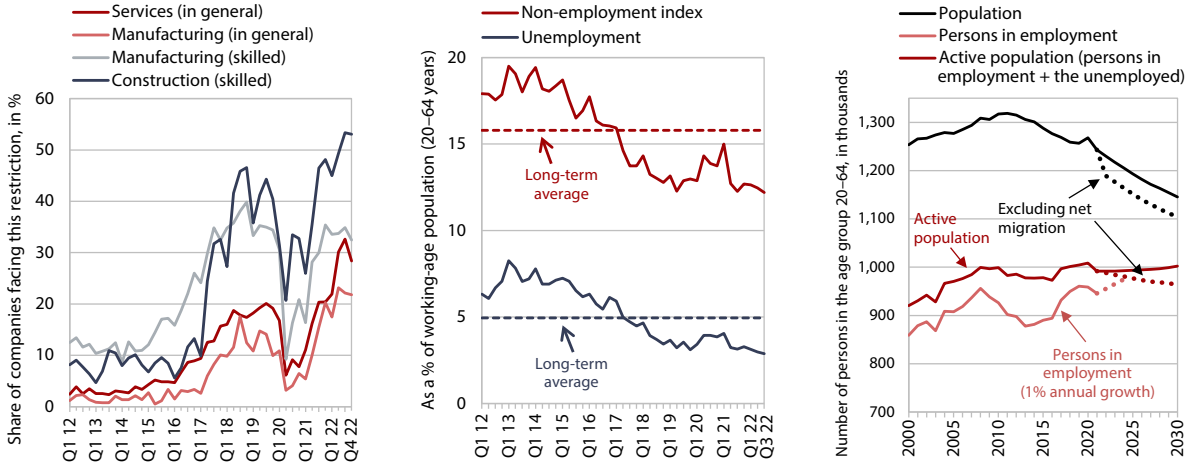
based price fixing, depending on the conditions on the global market and with a fixed margin. In September, the same model was applied to the regulation of fuel oil prices. It is estimated (based on the estimated prices of petroleum products of the Ministry of the Economy, Tourism and Sport, not counting regulation) that the regulation reduced inflation by approximately 0.4 p.p. The maximum fixed price of gas and electricity was also set for a period of one year (until 31 August 2023), and the maximum district heat tariff item for the variable part of the price was set from the beginning of this year until the end of April 2023. The Government also reduced VAT and some other contributions and duties on certain groups of energy products. According to the data available from SURS, which estimated the impact of tax changes on inflation, the latter (measured by the HICP) was lower by 1.3 p.p. as a result of all tax changes. As the prices of petroleum products decreased due to lower prices on global markets and a stronger euro in the recent period, excise duties on petroleum products were increased at the beginning of this year, and their contribution to inflation is estimated at approximately 0.2 p.p. (data available as in February 2023).

[13] The vacancy rate is the ratio between vacancies and all (vacant and occupied) positions.

[14] A long-term burden of additional work also affects employees' preferences, since they are less willing to extend their normal working hours (see also Section 3.1)

[15] The non-employment index is a broader measure of labour slack than

Figure 14: Labour shortage is hindering the operation of a record number of companies (left), the size of the workforce potentially available for employment (the non-employment index) is at its lowest level to date (middle) and demographic changes will have a permanent effect on the supply of workers (right)



Source: SURS (2021a, 2023h); calculations by IMAD. Notes: The left figure shows the general labour shortage and the shortage of qualified labour. The right figure shows the population projection based on the EUROPOP2019 population projection, not accounting for migration, and includes IMAD's net migration assumption of 8,000 per year from 2023 onwards. The projected number of unemployed persons is based on the assumption of the gradual continuation of the current long-term trend, i.e. an increase in the activity rate of the population from 68.8% in 2021 to 72% in 2030 in the 20–29 age group, from 92.8% to 93% in the 30–54 age group and from 54.9% to 72% in the 55–64 age group. The number of persons in employment is projected to increase by 1% per year.

its record-low level, much like the unemployment rate, suggests an extremely small domestic pool of available workers. The employment of foreigners is therefore becoming a major factor in employment growth, the employment of foreign workers having contributed more than 80% of the total employment growth in the last quarter of last year.

Nominal wage growth in 2021 and 2022 gradually increased due to strong economic growth, labour shortage and high inflation but nevertheless lagged behind the general price growth in 2022 (real wage decrease). Wage growth had been rising steadily in the years before the epidemic and was still high year-on-year in early 2020 due to a rise in the minimum wage, a general labour shortage and the 2018 agreements with public sector unions. During the epidemic, its marked fluctuation in the private sector was also affected by job-retention measures, the shutdown of industries, work from home, job loss and a smaller scope of other forms of work. In addition to agreements with unions (in 2020 and 2021),[16] wage growth in the public sector was marked mainly by epidemic bonus payments, first reflected in a strong boost to wage growth, followed by a sharp drop in the second half of 2021. In 2021 and 2022, nominal wage growth in the private sector, against a backdrop of quick economic recovery, started picking up under the increasing pressures of labour shortage experienced by a large number of companies. Wage growth was generally higher in sectors with a pronounced labour shortage (particularly in construction and accommodation and food service activities, Figure 15, right). Pressure on wages also stemmed from the minimum wage growth and employees' tendency to maintain their income gains against the backdrop of high inflation, while the employment of foreign workers with lower wages and measures against rising prices had the opposite effect on wage growth. Last year's wage growth in the public sector was also affected by the October agreement with public sector unions.[17] Nevertheless, the total real wage per employee decreased due to the high rate of inflation in 2022.

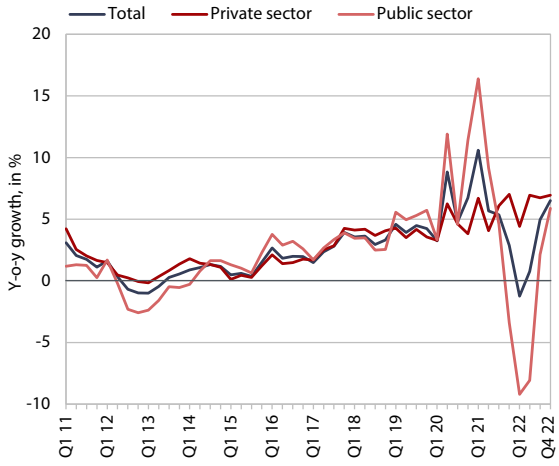
Despite expenditure to mitigate rising energy prices in 2022, the fiscal situation continued to improve under the effect of an economic recovery and reduced costs to mitigate the consequences of the COVID-19 epidemic. In 2020, extraordinary economic circumstances caused by the epidemic significantly

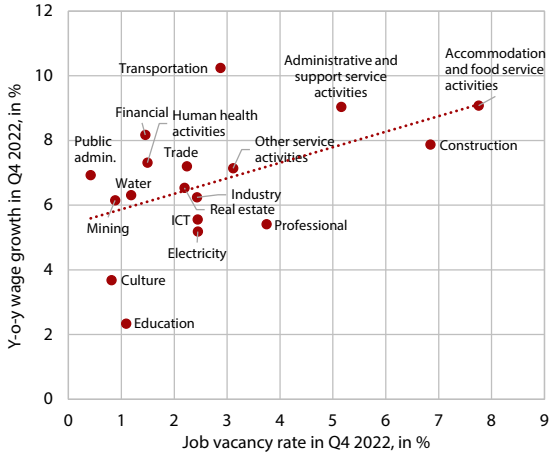
the usual unemployment rate, as it also covers certain categories of inactive persons and accounts for differences in each group's likelihood of transitioning into employment. The advantages of the non-employment index as a measurement of labour slack are the following: (i) unlike the unemployment rate, it correctly assumes that the potential additional labour force includes some other categories of working-age people besides the unemployed (students, retired people, discouraged job-seekers and other inactive persons) and (ii) it accounts for differences in these groups' likelihood of transitioning into employment. The non-employment index is thus a weighted (by probability of employment) sum of these groups. For a more detailed description of the methodology, see IMAD (2019a).

[16] Measures agreed with public sector unions at the end of 2018 also had an effect on wage growth in the public sector in 2020 and 2021. Specifically, wage growth was affected when the payments of performance-related bonuses for regular work and excessive workload started (as of 1 July 2020), along with an increase in wages in health and social protection and in nursing due to the classification of certain positions into higher pay grades and the introduction of new positions.

[17] Based on the agreement on measures relating to salaries and other labour costs in the public sector for 2022 and 2023, 2022 brought an increase in the amount of reimbursement for meals during work in September, a harmonisation of the wage scale by 4.5% in October, the payment of the holiday allowance for 2022 in November, with a higher classification of positions, titles and functions envisaged for 2023 in April, and payments arising from the implementation of agreements concluded during the terms of previous governments.

Figure 15: The total nominal growth in average gross wage increased last year (left) and was higher in sectors with greater labour shortages (right)





Source: SURS (2023h); calculations by IMAD.

worsened the fiscal situation (bringing the deficit to 7.7% of GDP and debt to 79.6% of GDP) achieved by Slovenia in 2019, when a fiscal surplus was reached and debt was approaching 60% of GDP. With the economic recovery and reduction of costs to mitigate the consequences of the COVID-19 epidemic, the situation began to improve in 2021 and continued to do so in 2022. The general government deficit dropped to 3.0% of GDP and the debt to 69.9% of GDP. The decreased deficit reflected the continued, albeit slower, growth in revenue and reduced expenditure growth. Growth in revenue moderated compared to 2021 due to moderated economic growth and reduced tax burdens, which were partly permanent (personal income tax) and partly temporary in nature (VAT, excise duties and the CO_2 tax). Revenues from taxes and social contributions relative to GDP remained at one of the lowest levels according to IMAD (Figure 17). Expenditure growth moderated under the influence of reduced expenditure to mitigate the consequences of the epidemic, which amounted to 4.5% of GDP in 2021 and 1.2% of GDP in 2022. Much like in 2021, investments grew significantly, and other current expenditure also grew slightly (expenditure minus investments and the costs of mitigating the consequences of the epidemic). Growth in current expenditure partly stemmed from temporary measures to mitigate the consequences of rising energy prices and partly from other measures with a permanent effect.[18]

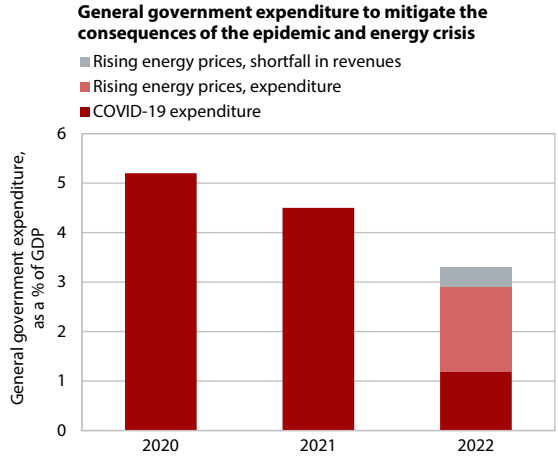
Similarly to Slovenia, an expansive fiscal policy was also characteristic of the euro area in 2022 for the third year in a row, according to the EC, which supported domestic demand while contributing to inflation pressures (EC, 2022z), making the transition to a more neutral fiscal policy an important step for 2023. In March 2022, soon after the outbreak of the war in Ukraine, the EC recommended that countries with a low and medium debt, which include Slovenia, maintain supportive fiscal policies in 2022, as economies were still under the impact of the consequences of COVID-19, with the war contributing to higher energy prices. Along with the supply shock in energy and raw materials and growing domestic demand, supported by fiscal policies since the beginning of the epidemic, inflation also increased significantly in 2022. Based on the expectation that inflation would remain relatively high, the EC recommended that the 2023 fiscal policies in countries with low and medium debt be neutral. After three years of expansive action, a transition to a more neutral fiscal policy is important to prevent further imbalances.

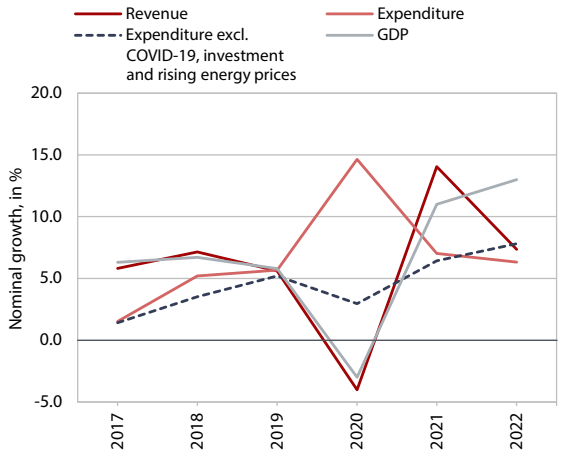
After four years of departure from fiscal rules, during which measures with permanent fiscal effects were adopted, and based on the potential financial effects of reform measures, it seems necessary to set public spending priorities and to focus more on medium-term planning. A departure from fiscal rules during the COVID-19 epidemic, when measures to curb the spread of the virus paralysed the economy, enabled a flexible fiscal policy response to preserve economic potential. The extent of these supporting measures was significantly decreased last year, and the majority of related expenditure was directed at sectors most affected by the epidemic (vouchers for tourism, accommodation and food service activities and other service sectors) and the provision of public health services. In the 2020–2022 period, the extent of measures to mitigate the consequences of the epidemic on public spending (relative to GDP) in Slovenia exceeded the average level of measures in the euro area.[19] As regards measures

[18] The most important measures with a permanent effect that had an impact on current expenditure growth (excluding COVID-19 and rising energy prices measures) implemented in 2022 included an extraordinary indexation of pensions, the agreement on urgent measures in the field of salaries in health and social protection, the supplementation of the Health Care and Health Insurance Act in paying sick leave at the expense of the employer, and the agreement on measures relating to salaries and other labour costs in the public sector for 2022 and 2023.

[19] The value of measures to control the epidemic in Slovenia amounted

Figure 16: As a result of reduced expenditure to mitigate the consequences of the epidemic (left), growth in general government expenditure in 2022 continued to moderate, while growth in expenditure excluding the epidemic measures, investment and rising energy prices measures was slightly higher than in 2021 (right)





Source: IMAD assessment based on MF and SURS data.

to mitigate the consequences of rising energy prices adopted by countries in 2022, estimates show that their extent was less significant in Slovenia than the euro area average (1.0% of GDP compared to 1.3% of GDP in the euro area).[20] In addition to the above, mostly temporary measures, measures aimed at increasing expenditure[21] and decreasing general government revenue in the medium term were also adopted in the 2020–2022 period.[22] In many cases, these were important substantive changes in the regulation of individual areas, which also respond to long-unresolved long-term challenges, but no new sources of public finance were planned for their financing. At the same time, measures were not taken to a sufficient extent to ensure the fiscal sustainability of social protection systems and the green and digital transitions, which must be addressed and are part of reform measures under the Recovery and Resilience Plan. After years of focusing on short-term challenges, it is essential to tackle these development challenges within a credible medium-term fiscal framework. Regardless of the final agreement on the economic governance review and fiscal rules in the euro area, the framework will be more restrictive than in the last four-year period.[23] Based on the adopted measures with a permanent fiscal effect in recent years and the potential financial effects of reform measures being drafted, it will be vital to set priorities for budget spending.

to 5.4% of GDP in 2020 and 4.5% in 2021 and exceeded significantly the measures in the euro area which amounted to 3.3% of GDP in 2020 and 2021. In 2022, the value of measures in the euro area amounted to 0.9% (compared to 1.2% of GDP in Slovenia). Many euro area countries adopted measures with a less direct fiscal effect, e.g. guarantee schemes (EC, 2022z).

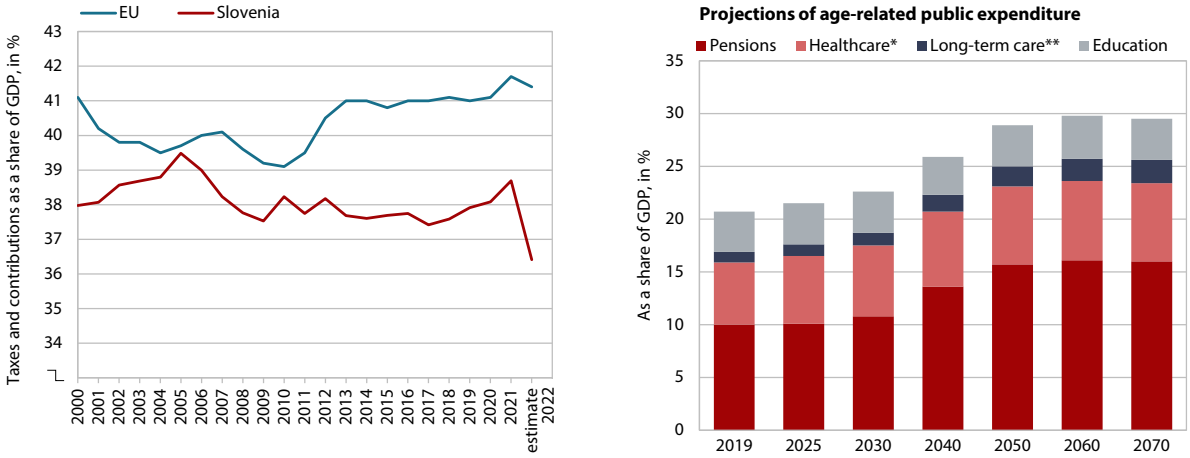
[20] The EC estimation of measures for the euro area was made during the preparation of their autumn forecast in November 2022 (EC, 2022), and the IMAD estimation for Slovenia was made on the basis of the realised data of the Ministry of Finance for 2022.

[21] Adoption of the Long-Term Care Act, the implementation of which was postponed to 2024 with the amendment of the act in 2022 (the Ministry of Health estimated additional funds from the state budget of the initial act in 2025 at EUR 463 million), adoption of the Scientific Research and Innovation Activities Act (the law envisages an increase in state funding to 1% of GDP), the Act on the Provision of Funds for Investments in the Slovenian Armed Forces in the Years 2021 to 2026 (provided by law in the amount of EUR 780 million), the Act on Provision of Funds for Investments in Slovenian Healthcare in the Years 2021 to 2031 (provided by law in the amount of EUR 2.1 billion), the agreement on raising salaries in the police (with the Act Amending the Organisation and Work of the Police Act, estimated at EUR 16 million in the draft law), and the Agreement on urgent measures in the field of salaries in health and social work and continuing negotiations (estimated by the HIIS at EUR 100 million). At the same time, the Strategic Plan of the Common Agricultural Policy 2023–2027, adopted in December 2021 and approved by the EC in October 2022, envisages that Slovenia will add additional funds to the mandatory minimum share for the rural development programme from national funds (EUR 310 million). At the beginning of 2022, there was also an extraordinary indexation of pensions (according to the ZPIZ estimate amounting to EUR 145 million) and an amendment to the Health Care and Health Insurance Act concerning paying sick leave at the expense of the employer (according to the HIIS estimate EUR 93 million), and the Agreement on measures relating to salaries and other labour costs in the public sector for 2022 and 2023 reached at the end of 2022 (according to the estimate of the Ministry of Public Administration EUR 611 million).

[22] The Motor Vehicle Tax Act abolished the additional motor vehicle tax in 2021 and changed the tax assessment scale (the proposed act estimated the financial impact at EUR 29 million), and the Act Amending the Personal Income Tax Act was adopted (in the proposed act, the financial impact in 2022 was estimated at EUR 247 million; due to further increases in the general tax relief until 2025, however, this effect would increase), which was amended at the end of 2022, decreasing the rise in general tax relief in 2023 and eliminating any further increase by 2025 as well as increasing certain tax rates.

[23] In November 2022, the European Commission presented a communication setting out orientations for a reformed economic governance and fiscal rules (EC, 2022c) and, following a few months of coordination with Member States, after which certain matters remain open, proceeded to draft the legislative amendments. In March 2023, the EC also presented a proposal of fiscal policy guidance for Member States for 2024, proposing the deactivation of the escape clause for fiscal rules at the end of 2023; for 2024, it will prepare quantified differentiated proposals of net primary expenditure growth differentiated based on the assessed debt sustainability of each country (EC, 2023a).

Figure 17: Reductions in the tax burden that is causing a decrease in tax and contribution revenues relative to GDP (left) are not consistent with the expected rise in needs and expenditure for financing social protection systems (right) and other challenges (financing the green transition)



Sources: For 2022, IMAD estimate based on the data of the primary general government aggregates of SURS, the EC Autumn forecast for the EU (left); projections of expenditure related to population ageing, Ageing Working Group (AWG) (EC, 2021g) (right). Notes to the figure on the right: * Public expenditure on health is shown based on the methodology of the system of health accounts (SHA), but excluding expenditure on long-term care and including expenditure on investments under the COFOG methodology. ** Public expenditure on long-term care: health and social portions according to SHA methodology.

In 2021 and 2022, the financial system remained stable, but its development gap increased further. The smallest development gap remains in the insurance sector, where an above-average share of non-life insurance stands out (relative to GDP and also in the structure of insurance), while the share of life insurance premiums lags behind many comparable EU Member States. The development gap is much greater in the banking system, which, however, remains stable. The total bank's assets (relative to GDP), an indicator of the banking system's development, decreased to 87% of GDP in 2022, approximately 30% of the EU average. But in 2022, the banks' business results continued to improve. Despite additional provisions and impairments,[24] profits were down only by 4%, due to the banks' relatively strong lending activity and significantly faster growth in borrowing rates compared to deposit interest rates. The latter increased net interest revenue by nearly one-fifth to approximately EUR 750 million, the highest amount since 2014. The share of non-performing loans also continued to decline gradually towards the EU average last year. Based on capital requirements, capital adequacy remained relatively high but decreased after solid growth in loan activity, lagging a little behind the EU average. The consolidation of the banking system continued.[25] The biggest development gap is in the capital market, which remains small and illiquid and does not provide an adequate basis for strengthening longer-term old-age savings. The new strategy for the development of the capital market envisages a faster development of the capital market, particularly through greater accessibility of financing, especially for small and medium-sized enterprises, and the promotion of digitalisation and financial education.

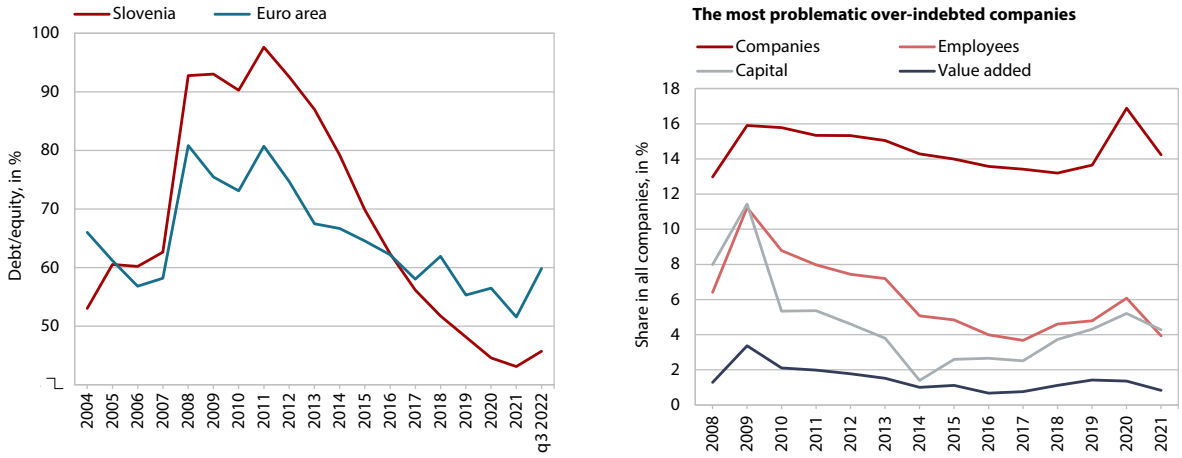
The financial situation of the business sector during the epidemic (2020–2021) remained relatively favourable, and the indebtedness of non-financial corporations increased slightly in 2022 but remained moderate. In the period before the outbreak of the global financial crisis, the increase in sources of financing in non-financial corporations was mainly based on corporate borrowing, but after the rehabilitation of the banking system and the deleveraging of the economy, the importance of capital gradually increased. The indebtedness of companies,[26] which reached historical highs during the global financial crisis, more than halved after the rehabilitation of the banking system and the economy. Owing to extensive measures to mitigate the consequences of the epidemic, it remained low in 2020 and 2021 (see also IMAD, 2022d). In the first three quarters of 2022, companies' debt recorded a more significant increase, but indebtedness still remained lower than the euro area average (Figure 18, left). With strong economic activity and favourable borrowing conditions, companies largely borrowed from domestic banks. Due to extremely negative capital market developments, capital growth reached its lowest point since 2015, but the financial structure of non-financial corporations nevertheless remained good. The share of capital at the end of the third quarter of 2022 represented about 53% of corporate financial liabilities, which is only slightly less

[24] In 2022, banks created EUR 17.3 million worth of provisions and impairments. In 2021, provisions and impairments were released in the amount of EUR 73.7 million.

[25] A foreign-owned bank that some time ago announced the takeover of the second largest bank in Slovenia, privatised in 2015, obtained all the necessary permissions in early 2023 to complete the takeover. One of the Russian-owned banks was at risk of ceasing operation at the outbreak of the war in Ukraine as a result of international sanctions and low trust. It was therefore taken over by one of the largest banks in Slovenia.

[26] Measured as a debt-to-equity ratio based on data from financial accounts. Figure 11 shows the indicators of indebtedness on the basis of data from the AJPES database of individual data for companies (balance sheets and income statements).

Figure 18: In 2020 and 2021, the indebtedness of non-financial corporations in Slovenia remained low (left); the share of companies with relatively high exposure to insolvency risk[1] in 2021 was lower than in the period of the global financial crisis (right)



Sources: BoS (2023b), ECB (2023) (left); AJPES (n.d.-b); calculations by IMAD (right). Note: Indebtedness is measured as the debt-to-equity ratio. Employees – the average number of employees based on working hours (AOP 188); Value added: gross operating yield (AOP 126) – subsidies, grants, annual leave payments, compensations and other revenue related to business effects (AOP 124) – costs of goods, materials and services (AOP 128) – other operating expenses (AOP 148), was slightly negative in 2008, 2015, 2016 and 2020. 1 The most problematic over-indebted companies have net financial debt and negative EBITDA.

than the euro area average.[27] Strong economic activity and good business results also affected companies' financial situation. Their financial assets increased by EUR 4.3 billion in the first three quarters, mainly due to other accounts receivable and payable, and the volume of corporate deposits with banks in Slovenia was also higher (by 8.3%), amounting to EUR 9.8 billion. The ECB responded to the increase in inflation with a swift normalisation of monetary policy, which worsened borrowing conditions.[28] It is estimated that this will have the greatest effect on financially vulnerable companies that are more exposed to the spill-over of risks into the financial system. The share of the most problematic over-indebted companies fell in 2021 (most recent data), after a temporary increase in the first year of the epidemic, and was 14.2% lower than during the global financial crisis, while the shares of employees, equity and added value of these companies were even lower than in 2008[29] (Figure 18, right).

Good company solvency is also reflected in the number of bankruptcy proceedings opened against legal persons and sole traders, which was lower in 2022 than in 2019. In addition to the many government intervention measures to mitigate the consequences of the epidemic and the energy crisis, overall financial stability and still favourable business results also contributed to favourable conditions. The assets quality of bank loans to companies (Figure 19), measured as the share of non-performing assets, has also improved despite the expiry of moratoria on loans and the beginning of the energy crisis (December 2022: 1.8%), although with different trends with regard to company size and activity.[30] Exposures to claims that are grouped for the purpose of credit loss assessment indicate a slightly increased credit risk. In the last months of last year, the share of claims against companies whose credit risk has increased significantly since their loans were granted (S2) rose and was higher in December 2022 (8.5%) than before the epidemic (6.5%) but lower than before the outbreak of the war in Ukraine (by 1.4 p.p.).[31] During the epidemic and in 2022, the number of bankruptcy proceedings initiated against legal persons and sole traders was lower than in 2019 (Figure 19, right). This is partly related to moratoria on bankruptcies, the closure of courts during the epidemic and moratoria on debt service. In 2022, the greatest numbers of initiated bankruptcy proceedings against companies were in trade, construction, transportation, professional, scientific and technical activities, and accommodation and food service activities, and against sole traders in construction, trade, accommodation and food service activities and transportation. Even before the epidemic, these sectors stood out in terms of the number of initiated bankruptcy proceedings.

[27] The euro area average was approximately 55%. In addition to debt and equity, liabilities also include other liabilities.

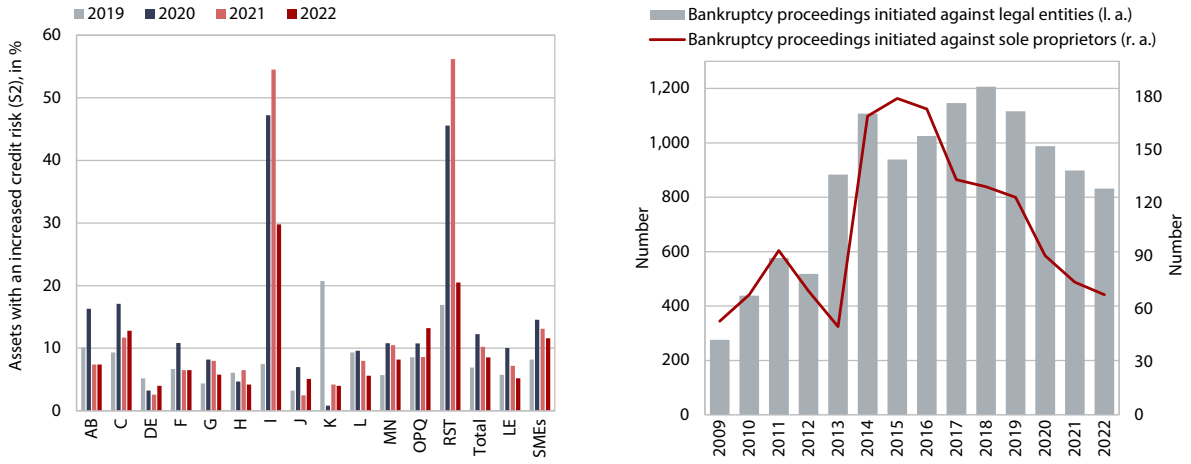
[28] The lending interest rates were the highest in five years, but they are still well below the levels before the financial crisis.

[29] For more information about the financial exposure of companies, see IMAD (2022d).

[30] Only accommodation and food service activities stand out with regard to NPA increase, as they were the most affected by the measures taken to prevent the spread of infections. In December 2022, the NPA share of these sectors reached 15% (compared to 8.1% at the start of the epidemic). A gradual decrease in non-performing assets in SMEs stopped after the first seven months of 2022 and rose slightly at the end of the year (3.2%), while the share of non-performing assets in large enterprises remained below 1%.

[31] Mainly as a result of still high shares in accommodation and food service activities and cultural and recreational sectors, which were deeply affected by the epidemic (29.8% and 20.5%; see Figure 19, left). Minor increases in the S2 share can be seen in certain more energy-depended industries, as their share, with the exception of manufacturing, is relatively small in the overall exposure of banks.

Figure 19: Credit risks are significantly higher only in accommodation and food service activities and certain other services (left); the number of bankruptcy proceedings initiated against legal persons and sole traders was significantly lower in 2022 compared to 2019 (right)



Sources: BoS (2022), AJPES (n.d.-a). Note: LE – large enterprises, SMEs – micro, small and medium-sized enterprises.

1.1.1 The territorial aspect of economic development

A more harmonised regional development should be promoted through the development of business activities, taking into account the development potentials of individual regions rather than dispersing service activities that have a natural tendency towards concentration in the central region. Due to fast growth in the Osrednjeslovenska region in 2021, the GDP gap per capita[32] again rose considerably after a decade of decreasing and slightly exceeded the highest previously measured level from 2009 (Indicator 1.8).[33] This fast growth mostly resulted from a high share and growth in sectors related either to the function of the country's capital or to services that have a natural tendency towards concentration (e.g. financial and insurance services) (Figure 20, left). However, the contribution of other market activities (A–I)[34] to the growth in added value was higher in a total of six regions than in the Osrednjeslovenska region, as was the case for the longer period between 2014 and 2019 (Figure 20, right). The difference in the contribution of activities A to I in 2021 between the industry-oriented Jugovzhodna Slovenija and Podravska regions was 1.4 p.p. of GVA growth, and as much as 1.9 p.p. between the Jugovzhodna Slovenija and Podravska regions, which suggests major untapped potential not only for a more harmonised regional development, but also for stimulating overall economic growth in Slovenia.[35] For 2022, only labour market data are available, showing a recovery in all regions. The employment rate in most regions already exceeded the 2019 level (Indicator 3.17). The number of jobs everywhere rose for the second year in a row, most markedly in the Gorenjska, Posavska, Osrednjeslovenska and Zasavska regions, while the registered unemployment rate decreased, most significantly in the Pomurska, Podravska and Obalno-Kraška regions.

EU funds for post-epidemic recovery must be used better to accelerate the restructuring of regions, which is essential for a more balanced regional development. The EU recovery and resilience funds, cohesion funds, and coal restructuring funds should be used more efficiently to accelerate processes in the areas of digital transformation, the introduction of new business models and green transition in the regions. In the Vzhodna Slovenija cohesion region, the regions are less competitive (ESPON, 2020b) and have a low knowledge capital but are included by the ESPON applied research project (ESPON, 2020a) among the regions with the possibility of shifting to the robotisation of traditional production and creative innovation, which

[32] During the economic boom between 2014 and 2019, the fastest growth was recorded in the Jugovzhodna Slovenija, Obalno-Kraška and Gorenjska regions.

[33] At the same time, differences in net disposable income per capita between regions remain at one of the lowest levels in two decades and are considerable smaller than the GDP gap per capita. In 2021, the Osrednjeslovenska region exceeded the Slovenian average only by 5 p.p., followed by the Koroška (by 4 p.p.) and Gorenjska (by 3 p.p.) regions. The biggest gap with the average was recorded in the Pomurska (by 8 p.p.), Podravska (by 5 p.p.) and Zasavska (by 3 p.p.) regions (see also Chapter 3).

[34] According to the OECD (2018d), modern market services, particularly business, healthcare, higher education, IT, financial and insurance services, but also professional, scientific and technological services, have a tendency towards concentration in bigger metropolitan areas. Consequently the analysis relied on the indicative division into A–I and J–U activities, which should not be understood consistently, as it is possible or reasonable for some J–U activities to be carried out in non-metropolitan areas.

[35] The dispersion of service activities with a natural tendency towards concentration could technically contribute to a more harmonised regional development, but mainly on account of reducing growth in stronger regions and due to unexploited agglomeration economies, growth in Slovenia as a whole. In the 1980s, Slovenia already recorded such negative trends – a period that Kukar (1996) termed as "equality in poverty". It is therefore better to focus on stimulating growth in other regions, i.e. in areas that, based on the activities described above, are complementary.

Figure 20: High growth in GVA in the Osrednjeslovenska region in 2021 is mostly due to growth in service activities J–U (left); six regions have a higher contribution of other market activities (A–I) to growth in value added than the Osrednjeslovenska region (right)

Source: SURS (2023h); calculations by IMAD. Note: GVA – gross value added. For a description of activities, see abbreviations. For an explanation of the division of activities into A–I and J–U, see footnote 36.

in terms of digital transformation and modernisation is key to harmonious regional development (IMAD, 2020). Fast-growing companies were also located in all statistical regions (IMAD, 2022c), with the Primorsko-Notranjska region having the largest share of such companies of all companies in the region. Positive shifts in the restructuring of regions can be stimulated by investments in new industries,[36] shortening of supply chains, logistical reorganisations and digitalisation of companies, taking into account the sustainable transformation to a low-carbon circular economy. This can contribute to the greater attractiveness of rural areas and therefore affect the balance between urban and rural areas, especially if a territorial approach[37] is used to promote development in functional areas of regions in accordance with the draft new spatial strategy of the Republic of Slovenia (MOP, 2020), the new territorial agenda 2030 (TA, 2020) and OECD recommendations (OECD, 2020d).

In some places, remote and hybrid work can also have a positive impact on the development of regions and can help slow the depopulation of rural areas. The epidemic-driven increased use of remote and hybrid work (which can also produce certain negative effects, see Chapter 3), when the nature of work and good access to high-speed broadband networks[38] allow this, could have a number of positive effects in the regions (OECD, 2021i) for the environment, transport,[39] infrastructure building, housing and the population of rural areas.[40] Remote work, including hybrid work, could slow these negative trends in combination with other comprehensive measures designed to promote more coherent regional and rural development, especially in relation to the opportunities offered by digitalisation and new technologies, or even reverse them.[41] The existing scattered settlement model in Slovenia can be a potential advantage if the appropriate policy response strengthens the international attractiveness of non-central regions and exploits their development potentials. Reversal of trends in doing so is possible at least in some rural areas,[42] but this requires strategic reflection on the desired and achievable spatial development.[43]

[36] In the field of digital technology, activities that support remote work, health and other services, boutique, safe and sustainable tourism in connection with self-sufficient agriculture, etc.

[37] The territorial approach promotes a comprehensive local and regional approach to problem-solving. It is a long-term strategy aimed at eliminating the underutilisation of local potentials and reducing social exclusion in specific areas through external interventions and multilevel governance.

[38] Poorer accessibility in some areas indicates the need to invest in digital transformation (see also IMAD, 2022c).

[39] The daily number of journeys to and from work was 2.6% lower in 2021 than in 2017, and the number of car journeys was 0.5% lower. In 2021, 20.1% of employees worked from home at least some of the time (14.2% in 2019).

[40] Between 2008 and 2018, the depopulation areas covered about 57% of Slovenian territory (Nared et al., 2019).

[41] The OECD (2021a) estimates that the medium-term or long-term perspective of regional development after the COVID-19 pandemic can go in different directions. The following scenarios have been identified: (i) continuing the current development based on large cities with greater use of the hybrid working model, (ii) strengthening suburbanisation, (iii) the rise of medium-sized towns, and (iv) migration from urban to rural areas.

[42] Particularly those with a longer-term perspective.

[43] Efforts to date to reverse this trend, which have improved infrastructure in particular and the employment and economic structure to a lesser extent, have had modest results.

1.2 A competitive and socially responsible entrepreneurial and research sector

A competitive and socially responsible entrepreneurial and research sector (Development Goal 6):

The aim is to raise competitiveness by creating products and services with high value added and to strengthen the social responsibility of companies and research organisations. The creation of high value added will be supported by innovation, basic and applied research, promotion of creativity, and the exploitation of digital opportunities and every opportunity afforded by the fourth industrial revolution. Other factors listed in SDS 2030 as relevant in efforts to increase value added include internationalisation of companies and research institutions and the provision of a supportive and predictable environment for business and investments, accommodating the needs of small enterprises. Achievement of the goal will also be contingent on human resources, which the SDS deals with in Development Goal 2.

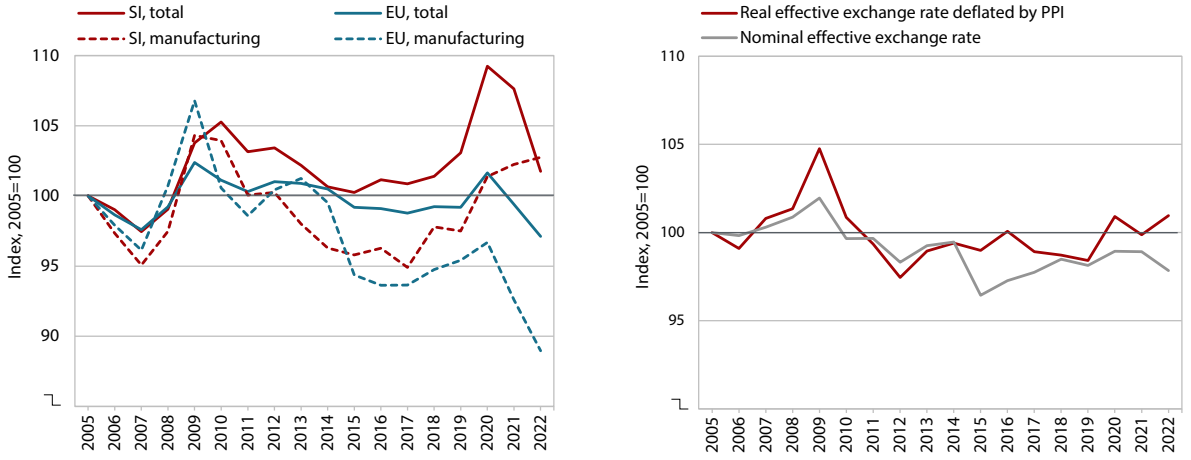
SDS 2030 performance indicators for Development Goal 6:

	Latest data		Target value for 2030
	Slovenia	EU average	
Labour productivity, index EU=100	86 (2022)	100 (2022)	95
European innovation index, Index EU 2015=100	102.7 (2022)	109.9 (2022)	> 120, i.e. ranking among innovation leaders
Digital Economy and Society Index, ranking among EU Member States	11th (overall in 2022) 9th–17th (across five components)	-	ranking in top third of EU Member States according to all five main components of the index

1.2.1 Competitiveness

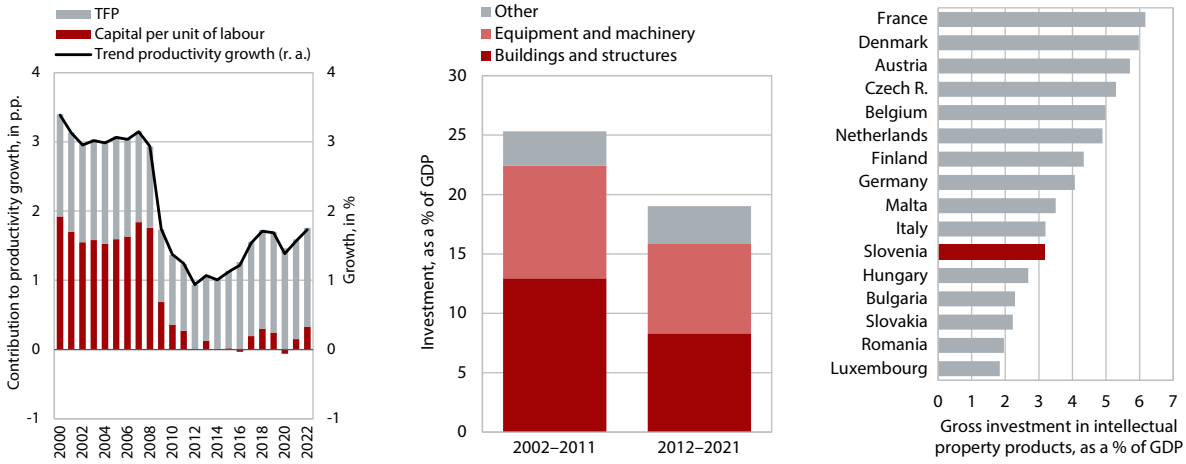
The cost competitiveness of business sectors was relatively stable due to extensive government intervention during the COVID-19 epidemic, but with the onset of the energy crisis, managing growing cost pressures is becoming increasingly challenging, particularly in the manufacturing sector. With the outbreak of the epidemic in 2020, unit labour costs increased significantly, but their increase was entirely covered by the Government through measures to mitigate the consequences of the epidemic (IMAD, 2021b, 2022e). In 2021, amid economic recovery, accompanied by labour shortage and increased inflation, growth in labour costs accelerated further, while the simultaneous strong rebound in productivity did not result in a significant discrepancy in the growth in unit labour cost between Slovenia and its trade partners. However, data for the most export-oriented part of economy are less encouraging. In 2022, with the cool-down in foreign demand and the resulting cyclical moderation of productivity growth

Figure 21: A significant increase in unit labour costs in the manufacturing sector (left) and a moderate fall in price competitiveness (REER PPI) in 2022 (right)



Source: Eurostat (2023); calculations by IMAD.

Figure 22: Weaker productivity growth in the past decade was mostly due to smaller investments (left and centre); based on international comparisons, low investments in intellectual property products stand out (2021) (right)



Sources: SURS (2023h), Eurostat (2023); calculations by IMAD.

(along with the further rise in labour and energy costs), the cost-competitiveness in the manufacturing sector deteriorated significantly (Figure 21, left). Cost pressures also spilled into high growth of manufacturing producer prices. In 2022, these slightly exceeded the price growth in trading partners, which was reflected in a slight deterioration of the price competitiveness of the manufacturing sector (measured at REER PPI[44]). Managing cost pressures cannot be based solely on limiting cost growth, but must rely primarily on raising productivity, i.e. the value added per unit of work done, and of materials and energy (see also Section 4.1).

After the outbreak of the COVID-19 epidemic, labour productivity soon recovered, but it remains weak on an international scale due to its long-lagging growth, thus reducing the potential for a boost in competitiveness and economic development. Following a decline when the epidemic struck in 2020, labour productivity recorded a significant rise in the following two years, exceeding the pre-epidemic level and reaching 86% of the EU average in 2022 in terms of purchasing power standards.[45] However, this was the first time that it slightly exceeded the highest level (relative to the EU average) reached in 2008. The decline in productivity during the global financial crisis was followed by a period of modest growth (an average of 1.4% per year in the 2014–2019 period, Indicator 1.9), mostly due to a very low contribution of capital to productivity growth (Figure 22, left). In the years of the economic boom that followed the global financial crisis, investment activity did increase slightly, but it remained low compared to the previous decade, due partly to the construction of major infrastructure facilities (e.g. the motorway network) and buildings prior to the global financial crisis. Today particular attention should be devoted to increasing investment into the green transition (e.g. renewable energy sources, electricity grid capacities, sustainable mobility, the energy renovation of buildings, etc.), another challenge being the expansion or renovation of the housing stock. Investments in equipment and machinery, with industry representing a large share of the economy, are among the highest among EU Member States, but the current level, particularly in combination with relatively small investments in intangible capital,[46] does not suffice for the modernisation and acceleration of productivity growth in the business sector (see also Section 1.2.2).

The energy crisis and increasing labour shortage brought numerous additional challenges to productivity but also opportunities for a speedier modernisation and restructuring into a highly-productive green economy. Most companies fared well during the COVID-19 crisis. The financial situation of the business sector remained relatively favourable, owing to extensive government measures (see Section 1.1), and investment activity therefore increased again in 2021 (see Section 1.2.2). With the energy crisis that deepened significantly in 2022, conditions for productivity growth, in the light of increased uncertainty and higher energy costs,[47] changed dramatically again.[48] Furthermore, in the post-COVID economic recovery, the issue of labour shortage worsened, increasing labour costs and hindering business operation (see Section 1.1), but it could also encourage a faster digital transformation of companies.

[44] The real effective exchange rate deflated by the prices of industrial products of manufacturing subcontractors.

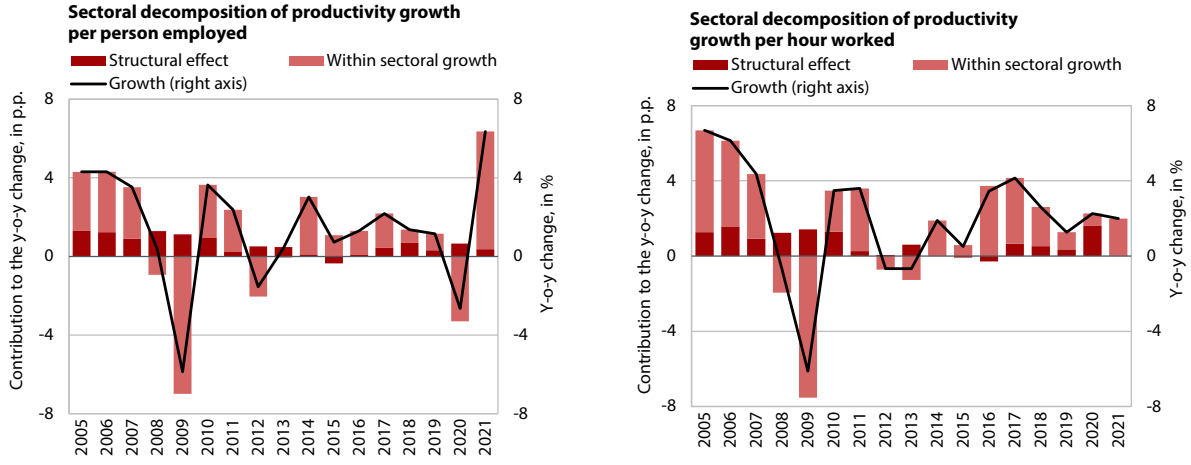
[45] Based on the productivity level per employee, it ranked 15th in the EU.

[46] According to investments in intellectual property products (computer software and databases, research and development), Slovenia ranked 11th in 2021 among the 16 EU Member States for which data are available (or 16th in 2020 among the EU-27). When it comes to softer forms of intangible capital, based on investments in in-company training and the improvement of organisation and business processes, Slovenia ranked among the least successful EU Member States in 2021 but among the most successful in investing in design and branding based on slightly older data from 2017 (IMAD, 2022d).

[47] These also spill over into other prices (of goods, services and, through inflation, labour costs).

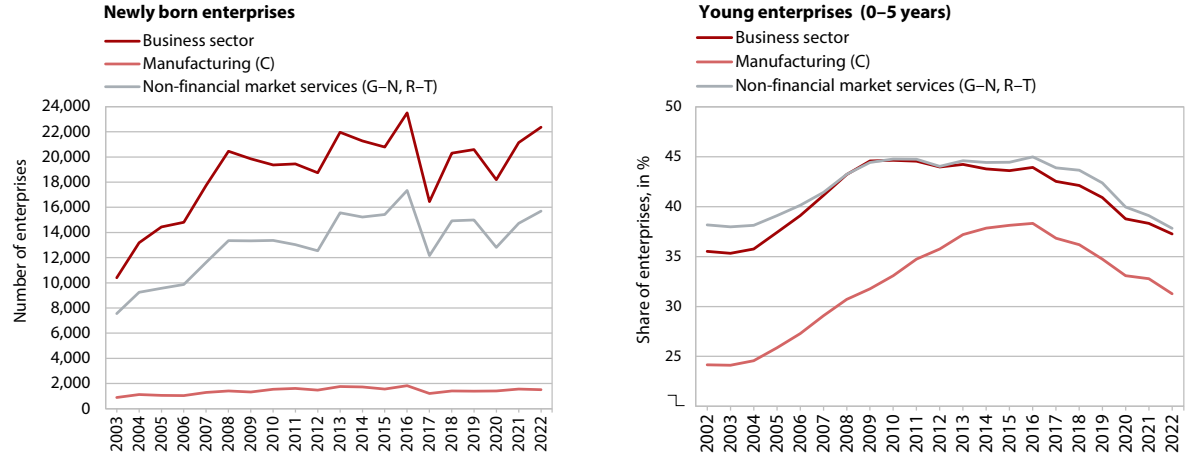
[48] Numerous targeted supporting measures were adopted (to aid businesses, energy-intensive companies and the agricultural sector).

Figure 23: The positive effect of the transition between sectors on productivity growth during the COVID-19 crisis



Source: SURS (2023h); calculations by IMAD.

Figure 24: The birth rate of enterprises over a longer period of time is not increasing (left); the share of young enterprises has decreased since 2008 (right)



Source: AJPES (n.d.-c.); calculations by IMAD.

Opportunities for innovation and development activities could also be limited in the future, due to a stricter monetary policy in response to high inflation. At the same time, tightening financial conditions could also have a positive effect on growth in total productivity due to the increased effect of less productive companies exiting the market ("the cleansing effect") after a period of extremely low interest rates enabling the operation of less successful companies.[49] Similarly, higher energy prices could speed up the restructuring of the economy towards achieving a higher energy efficiency (and a smaller carbon footprint), which would, in turn, lead to higher total productivity (EC, 2022ab). In order to carry out this restructuring and modernisation of the economy, it will be key to develop appropriate human resources as well as increasing investments, partly with the help of the EU post-epidemic recovery funds, and reducing the energy dependency of EU economies, particularly if greater weight was put on encouraging modernisation and restructuring.

During the COVID-19 crisis (2020–2021), allocation efficiency improved slightly, but the effect on the winding up of unsuccessful companies (the cleansing effect) on total productivity was relatively modest. In addition to the more efficient operation of individual companies, productivity is also significantly affected by the reallocation of production resources (e.g. labour) from less to more productive companies and sectors. Reallocation usually accelerates in times of crises, due to harsher operating conditions. In 2020, when the COVID-19 epidemic broke out, that had different effects on sectors in Slovenia,[50] the impact of cross-sectoral reallocation on productivity growth being relatively high, as expected. As the economy

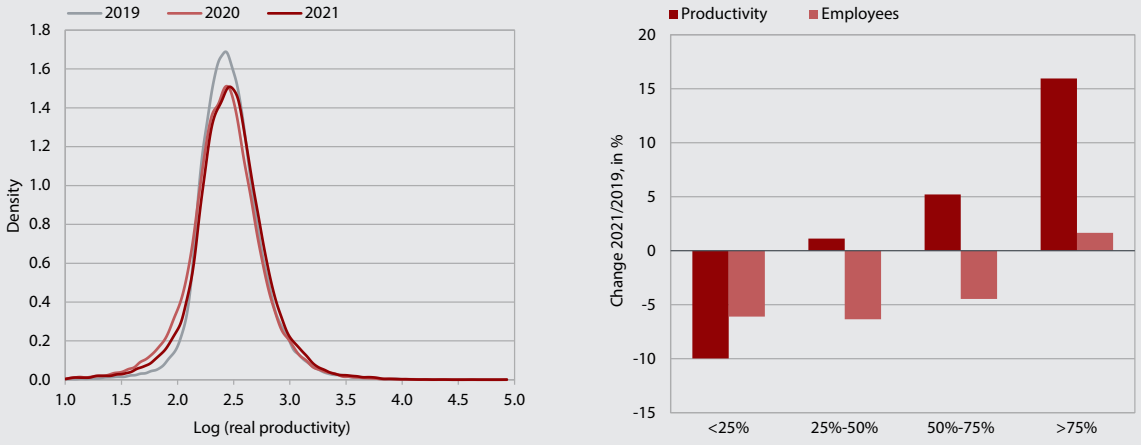
[49] According to Cette (2022), the positive cleansing effect of interest rate increases should outweigh the negative effect on total productivity growth.

[50] The epidemic had a particular impact on the contact-intensive service sectors. On average, these sectors achieve lower productivity.

Box 1: Differences in productivity between companies and the effect of reallocation during the COVID-19 epidemic

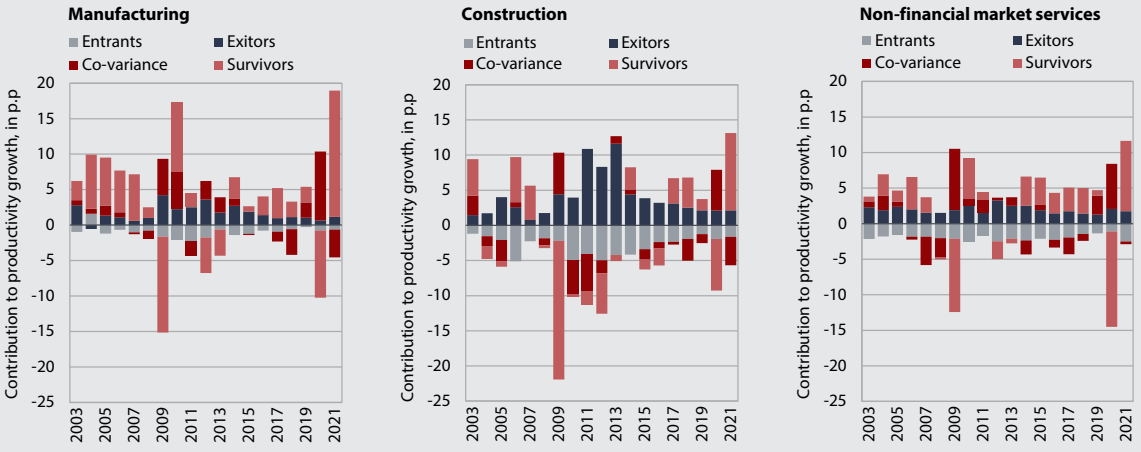
During the epidemic, differences in productivity between companies increased. The change in the productivity distribution of companies shows that, between 2019 and 2021, the number of average productive companies decreased, while the number of companies with low (increased left tail) and to a certain extent also higher productivity (increased right tail) increased. The average (unweighted) productivity of companies in the bottom quarter of the productivity distribution decreased significantly in 2020, lagging by a tenth in 2021 behind the pre-epidemic level (in 2019). Meanwhile, the average productivity of other companies increased, particularly for companies in the top quarter of the productivity distribution. At the same time, the most productive companies increased employment while other companies decreased it on average. The increase in the share of employees in companies with higher productivity indicates an increased contribution of reallocation to aggregate productivity growth. In the macro data, a shift of the labour force to more productive sectors was detected in the context of the increase in the contribution of cross-sectoral reallocation (see Section 1.2.1). The following is an estimation of the impact of reallocation of labour between companies from the same sector.

Figure 1: Distribution of companies' productivity in 2019, 2020 and 2021 (left) and a change in productivity and employment during the epidemic by productivity quartile (right)



Source: AJPES (n.d.-c); calculations by IMAD. Note: Companies with at least one employee and positive added value are included. Productivity is defined as real value added (excluding subsidies) per employee (in full-time equivalents). The figure on the right shows the change in real productivity and the number of employees separately for the quarter of the least (<25%) or the most (<75%) productive companies and those that fall between 25% and 50% and between 50% and 75% of companies by productivity. Changes in the normal (unweighted) average of these groups are shown.

Figure 2: Dynamic Olley–Pakes decomposition of productivity growth



Source: AJPES (n.d.-b); calculations by IMAD. Companies with at least one employee and positive added value are included.

For a more detailed analysis of impacts on sectoral changes in productivity, with an emphasis on reallocation between companies, we followed the dynamic Olley–Pakes decomposition (Melitz and Polanec, 2015). This change in sector productivity is explained through the contributions of (i) changes in the average unweighted productivity of survivors and the contribution of reallocation of employees or, more specifically, (ii) covariance, (iii) the exit and (iv) the entry of companies:

(i) **The change in average productivity at the level of companies confirms a large and extensive effect of the epidemic in the first year and a strong rebound in 2021.** Pre-epidemic productivity levels were exceeded on average by companies in ICT services that were less affected during the epidemic and, due to fast recovery in 2021, also in trade and more export-oriented sectors – transport and manufacturing sectors. Among these, high productivity growth was also recorded on average in companies in energy-intensive manufacturing industries (paper, metal, non-metal mineral products, the chemical industry), which already faced growing energy prices, while greater cost pressures that could affect the productivity of these companies are expected in 2022. Particularly in certain services, where COVID-19-related restrictions were still in place in 2021, the average productivity of companies remained below the 2019 level, notably in accommodation and food service activities, sports, cultural and other leisure activities and travel agencies.

(ii) **Reallocation of employees from less to more productive companies within the sector increased during the epidemic due to the improvement in 2020.** The contribution of covariance, i.e. increasing the share of employees in companies with higher growth or level of productivity at the expense of a decrease in the share in lower productive companies of the same sector, decreased from the year before, which was expected after a high contribution in 2020. The total contribution of reallocation for both epidemic years was positive in 75% of industries at the level of Nace Rev. 2 departments. In most of the above-mentioned sectors most affected by the epidemic, effective reallocation at the sector level also considerably offset the decrease in productivity.

(iii) **A small effect of company exits, i.e. the cleansing effect, continued in 2021.** The exit of unsuccessful companies is a natural process that enables the release and redirection of production resources from unsuccessful (unproductive) to more successful (productive) companies. In times of crisis and in the years that follow, it usually increases. In both years of the epidemic, the cleansing effect in most sectors was small, also compared to the years of the economic boom.1 A smaller number of bankruptcies and a low cleansing effect is related to the limited functioning of the courts, moratoria on bankruptcies and debt repayments, and substantial business subsidies.2 While these helped preserve the healthy cores of the economy and thus the economic potential, their justifiability (also in terms of an effective allocation of public funding) is questionable for companies that have operated unsuccessfully for a longer time, including zombie companies).

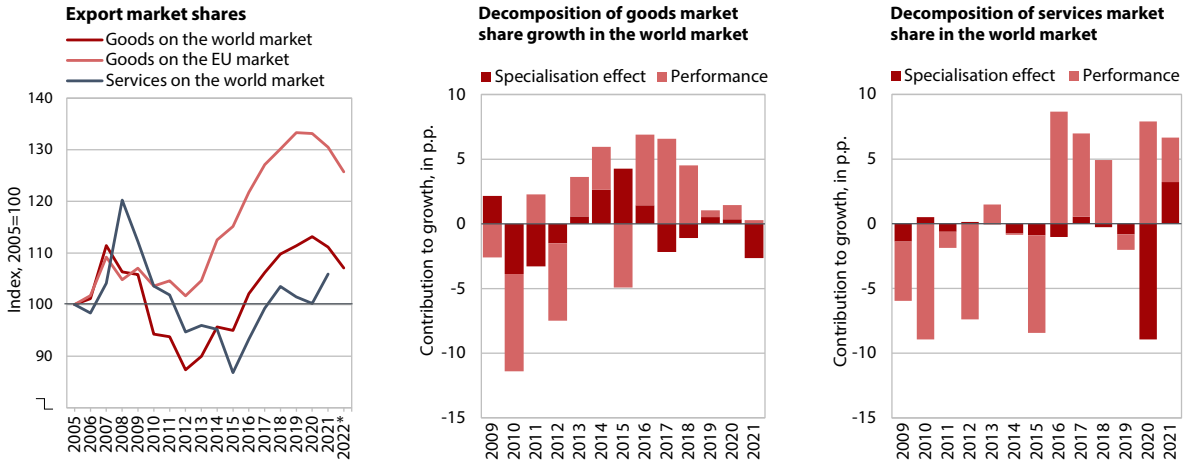
(iv) **In line with the low dynamics of start-ups, the modest contribution of entry continued.** In their initial period of operation, start-ups tend to have lower productivity, and their market entry has therefore, on average, a negative contribution to overall productivity. However, due to rapid growth and new (even disruptive) ideas and business models, these companies, or at least some of them, can be an important lever for productivity growth in the medium and long term. Given the relatively low dynamics of the formation of new companies (see Section 1.2.1), the (negative) contribution of company entry was also modest – lower than in the past in nearly all sectors.

[1] Based on previous trends, it was slightly higher in accommodation and food service activities.
[2] See also Section 1.1 and IMAD (2022d), Section 2.2.

started to recover in 2021, employment in more affected sectors increased again, while the structural effect on productivity growth decreased again in 2021, but the two-year total was positive (Figure 23). The total contribution of reallocation between firms within sectors was also positive in both years (2020–2021), but almost entirely due to the transition of employees between existing companies, i.e. relatively faster growth or smaller decrease in employment in more productive companies. However, the restructuring of the economy due to the winding up of unsuccessful companies (the cleansing effect) was modest and significantly smaller in scale than during the global financial crisis (Box 1). This is attributed to significant subsidies to businesses, the limited functioning of the courts, and moratoria on bankruptcies and debt repayments during the epidemic. On the other hand, these measures had an important impact on maintaining the productive potential of many healthy companies, thus contributing to fast economic recovery as the situation gradually normalised. With a low dynamics in company exits, the company birth rate also went down in 2020. It increased again in the 2021–2022 period,[51] but the downward trend in the share of young companies from previous years continued (Figure 24). Along with the most targeted possible measures to support companies in crisis, which would prevent companies with a less effective business model from operating too long, greater attention should also be paid to the creation of new, innovative companies that would

[51] Between 2021 and 2022, following a temporary decrease in 2020 according to GEM data, early-stage entrepreneurial activity (the share of the population entering entrepreneurship) in 2022 increased significantly, reaching its previous peak of 8% from 2016 (GEM, 2023).

Figure 25: The export market share of goods has been decreasing since 2021, while the share of services continued to increase during the epidemic; both markets were significantly affected by export specialisation during this period



Sources: UN Comtrade (2023), UNCTAD (2022), WTO (2022), Eurostat (2023). Note: * The data for the 2022 global market share are for the first three quarters of 2022. The data on the export share of goods on the global market do not include re-exports (the exports of previously imported) pharmaceutical products to Switzerland (for details see Indicator 1.10).

replace less effective companies and thereby contribute to faster productivity growth in the coming years.

After several years of improvement, the export competitiveness of the Slovenian economy deteriorated in 2021 in terms of the exports of goods. The Slovenian export market share of goods on the global market increased from the end of the global financial crisis (in 2013) and reached its peak in 2020. After decreasing slightly in 2021, data for the first three quarters of 2022 show a further drop (Indicator 1.10). A more detailed analysis shows that the competitiveness (export performance) of most export product groups on the EU market decreased, which is related to increased cost pressures when the global growth in the prices of raw materials in Slovenia was combined with a higher growth in labour costs and service prices compared to its trading partners. But the biggest reason for the fall in the export share on this market is the structure of Slovenian exports. On the global market, where detailed data are only available for 2021, the fall was entirely due to a structural effect. This means that Slovenian exports are more specialised in currently slower (e.g. the road vehicle market) rather than faster growing product markets (in 2021 particularly the raw materials market). The export share of services on the global market, which, following the previous crisis, had only been growing since 2016, continued to increase in 2021 but is relatively low and has not equalled its highest value of 2008. The export structure also plays an important role in this sector, with predominantly traditional services such as travel and transport. The share of knowledge-intensive services, such as various ICT services, financial and other knowledge-intensive services, for which global demand is growing more rapidly, is relatively low, which limits the growth of service exports and the export market share.[52]

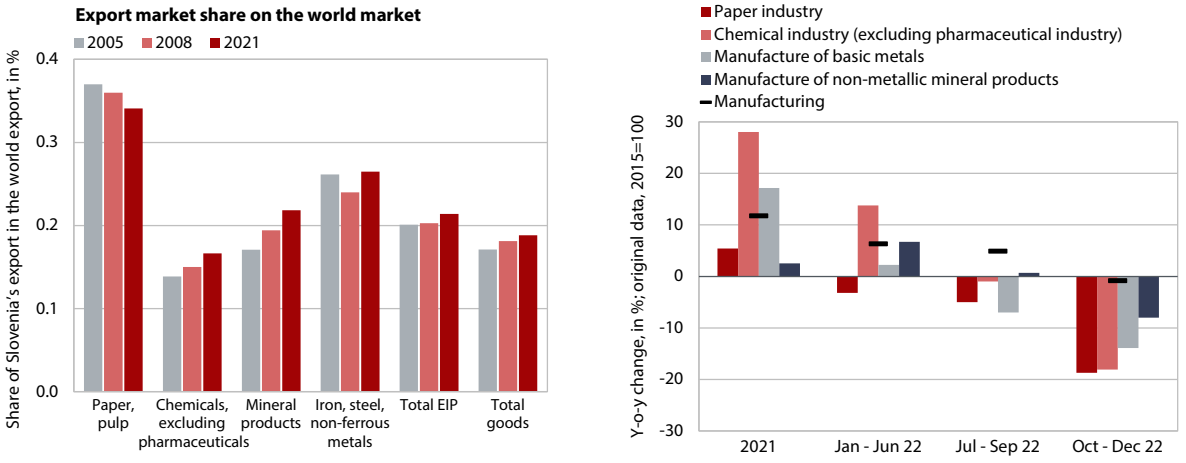
A significant effect of the export structure on the export market share or export competitiveness therefore further confirms the urgency to restructure the economy and thus exports towards a greater share of products with a higher added value and a lower carbon footprint, so we can be more efficient in adapting to changes in global demand.

Energy-intensive products have a relatively high share in Slovenian exports of goods, which could mean a bigger exposure of Slovenian exports during the energy crisis. This crisis, which deepened with the outbreak of the war in Ukraine, has a relatively bigger negative effect on energy-intensive industries with a relatively high energy cost share in the final product and will speed up the restructuring of the economy towards the planned green transition. In Slovenia (and the EU as a whole), the most energy-intensive industries are the manufacture of fabricated metal products, the chemical industry, the manufacture of mineral products and the paper industry, with approximately 10-percent or higher shares of energy costs (direct and indirect) in the final product.[53] These are quite successful industries; over a longer period before the energy crisis, their total export competitiveness improved or the export global market share of all these industries increased, with the exception of the paper industry, where export market share nonetheless remains the highest (Figure 26). In most of these industries, Slovenia also has comparative advantages in terms of exports (with the exception of the chemical industry, Figure 26). This means that their export share in total exports in Slovenia is higher than the global average. At the same time, Slovenia is a net importer of these products, which suggests both a strong integration in international trade and an

[52] A very significant negative structural effect on growth in the global market share of export services in 2020 was due to a substantial drop in demand for travel and transport activities in the wake of the COVID-19 epidemic. With demand starting to recover, this effect was positive in 2021.

[53] In other industries, it is roughly between 4% and 7%.

Figure 26: Slovenia's competitiveness in the export of energy-intensive products increased in the 2005–2021 period (left); in the second half of 2022, their production volume decreased significantly in the aftermath of the energy crisis (right)



Sources: UN Comtrade (2023), UNCTAD (2022), Eurostat (2023), SURS (2023h); calculations by IMAD. Note: EIP – energy-intensive products.

economic structure based highly on their use. All of this demonstrates quite a considerable significance of energy-intensive products for the Slovenian economy and, during the energy crisis, a relatively higher exposure due to high prices or even an energy shortage. Growth in the price of raw materials was reflected in the above-average increase in producer prices in energy-intensive activities in 2021. In 2022, it was even somewhat higher than the euro area average (with the exception of the chemical industry, not including the pharmaceutical industry). Data for 2022 show that paper and metal products were one of the few export groups where the export share on the EU market increased (Indicator 1.10), meaning that, despite significant increases in final product prices, export competitiveness has not yet declined. In all energy-intensive industries, the (real) production volume at the end of 2022 started to lag behind comparable levels from the previous year,[54] which is also due to a moderation of import demand in the light of cost pressures.

The introduction of socially responsible practices that allow companies to gain competitive advantages is increasingly becoming an essential part of their operations. Companies (and organisations) obtain various internationally recognised certificates and standards, demonstrating to interested stakeholders (employees, consumers, investors, local communities, the society and value chain actors) a sustainable impact of their operations (products, services and processes) on the environment and society. Recently, the "ESG criteria" – environmental, social and governance criteria – have been used to measure the impact of companies' operations and their products and services on the environment and society. Meeting these criteria is being increasingly transposed into EU legislation, an important framework in this area being the 2018 action plan on financing sustainable economic growth. On the basis of this action plan, implemented legislative bases introduce mandatory reporting according to ESG standards for first companies[55] for the 2024 financial year. In addition, EU standards on issuing green bonds to finance investments and rules on company obligations (including those of subsidiaries and value chain companies, including small and medium-sized enterprises) regarding the actual and potential negative effects on human rights and the environment are being drafted. There is also an ongoing public discussion on the proposal for an EU regulation establishing a framework for setting ecodesign requirements for sustainable products that introduces certain new elements that will further empower consumers (a digital product passport, providing information on product environmental sustainability), focuses on certain more environmentally intensive industries, and adopts a work plan for a transitional period between 2022 and 2024 (energy labels for categories of products that impose a higher burden on the environment, including consumer electronics, the fastest-growing waste stream). All of this is drastically changing the business environment and requires companies to be highly responsive and take action in the struggle to stay competitive. The EIB survey shows that Slovenian companies' awareness of the impact of climate change in their operations is low compared to other EU Member States, and a relatively low share of companies consider stricter environmental standards and legislation as a business opportunity (IMAD, 2022d). In terms of introducing environmental certificates, such as the ISO 14001 standard and the Ecolabel, Slovenia is doing better than the EU average, with a relatively modest uptake of the slightly more challenging EMAS (Indicator 1.18).

[54] One of the highest year-on-year declines in production volume in the last quarter of 2022 was in manufacturing.

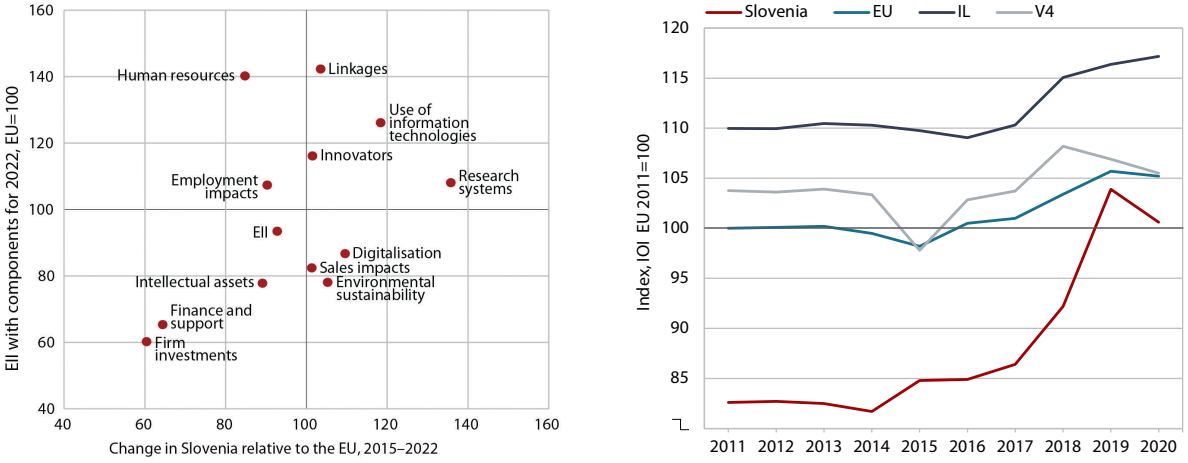
[55] These are companies, banks and insurance companies with more than 500 employees and are already reporting according to NFRD standards (the Non-financial Reporting Directive; Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups).

1.2.2 Transition to a smarter green[56] economy

The efficiency of the Slovenian innovation system is increasing... After a significant fall following the global financial crisis, the share of innovation-active enterprises has been increasing again since 2016; according to the last measurement in the 2018–2020 period, it increased from the previous period from 48.6% to 55.2%, which is the highest share in the last decade. Therefore Slovenia moved up two places, ranking 14th in the EU (see Indicator 1.14). Innovation activity was boosted by companies in all size classes; compared to other Member States, these were mostly medium-sized (now 10th) and large enterprises (the third highest share together with Lithuania), while small enterprises remain around the EU average. The Innovation Output Indicator (IOI)[57] by the EC Joint Research Centre has also improved significantly in the last period (Bello et al., 2022). Its value is still below comparable country groups (Figure 27, right), which is mostly due to the second-lowest share of knowledge-intensive services in EU exports. The improvement is based mainly on a noticeable progress made in terms of the share of employees in fast-growing companies in innovation sectors, the share of exports of medium-high and high-technology products, and the employment rate in knowledge-intensive industries.

...while the structural stagnation in the transition to a smart green economy continues due to insufficient investments and too shallow modernisation processes. According to the European Innovation Index (EII), which measures the relative advantages and drawbacks of national innovation systems, including their sustainable, digital and ecosystem aspects, Slovenia is progressing, but without significantly closing the gap with the EU average, as is the case for the European Eco-Innovation Index. In terms of the EII, the gap with innovation leaders in the last seven years has even increased. This is not so much due to the weak attractiveness of its research system, use of IT or the intensity of stakeholder linkages (Figure 27, left), but mainly to insufficient investments in innovation of both the business enterprise and public sectors and too shallow modernisation processes (IMAD, 2022d). The latter is reflected in a low intensity of introducing new technologies and insistence on traditional competitive advantages of the economy with insufficiently ambitious and comprehensive transformation processes, which is also related to organisational factors and a long-term weakening of Slovenia's competitive advantages in human resources.

Figure 27: According to the EII, Slovenia is not closing the gap with the EU average (nor with the innovation leaders), but the efficiency of its innovation system is improving, despite insufficient investments

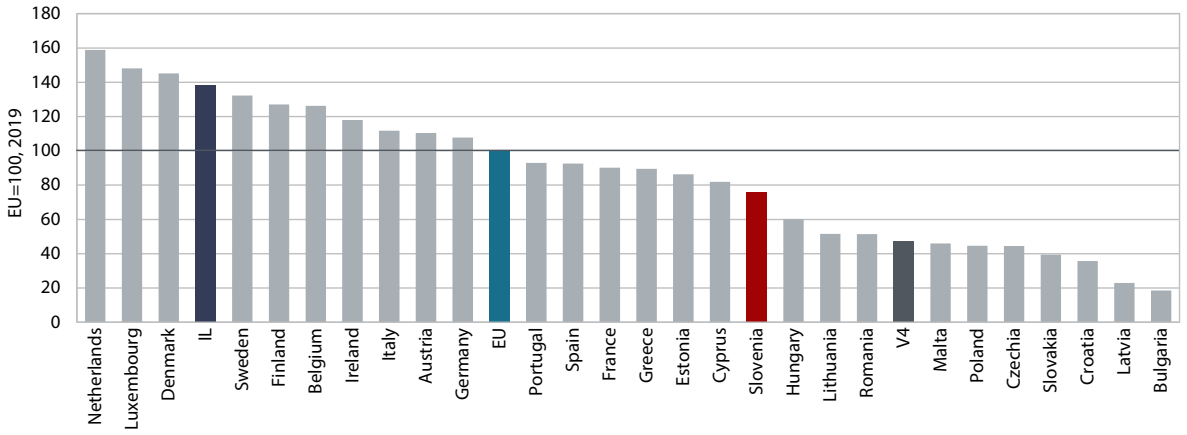


Sources: European Commission (EC, 2022n), Bello et al. (2022); calculation by IMAD. Note: The EII refers to the European Innovation Index (left); the abscissa shows the change in individual EII component in the 2015–2022 period for Slovenia relative to the change in the EU average. IOI = Innovation Output Indicator (right)

[56] The transition to a green economy is described in greater detail in Chapter 4; this section focuses mainly on the aspect of business transformation.

[57] The indicator estimates the countries' "capacity to derive economic benefits from innovation and the dynamics of their innovative business activities" (Bello, 2022, p. 3). It is composed of the following indicators: the number of PCT patents per billion of GDP (at PPS), the share of employees in knowledge-intensive sectors as the total share of employees, the share of exports of medium- and high-technology products in total exports, the share of exports of knowledge-intensive services in total exports of services, and the share of employees in fast-growing companies in innovative sectors.

Figure 28: Slovenia has a low share of scientific publications ranking among the ten most quoted in the world*



Source: EC (2022y); calculation by IMAD. Note: * the share of scientific publications ranking among the ten most quoted in the total number of scientific publications of a particular country.

1.2.2.1 Scientific research system

The quality and efficiency of the scientific research system are improving but still lag far behind international excellence, partly due to the conditions in which the system operates. According to the EII methodology, the quality and efficiency of the scientific research system consistently improved in the 2015–2022 period, exceeding the EU average for the first time in 2021. The country's scientific research system is highly integrated in the international environment, as Slovenia has a high ranking of 11th in the EU in terms of its share of scientific publications in co-authorship with foreign scientists per million population. Even though it is further increasing its advantages over the EU average and the Visegrad Group (the V4) in terms of international integration, this has recently not been enough to close the gap with innovation leaders. In terms of the system's openness to foreigners, measured by the EII with the share of foreign PhD students, the situation improved considerably in 2019 and 2020, but this was still an average success and therefore represents untapped potential compared to the innovation leaders. An even bigger weakness is the country's below-average scientific excellence, where Slovenia ranked 17th in the EU according to the share of ten most quoted scientific publications in the world in 2019 (the last available data), lagging significantly behind the EU average. While the gap has been closing, it is still wide. This is due to insufficient investments in the last decade (IMAD, 2022d), which is reflected, for instance, in a high average write-off of equipment and other tangible fixed assets: it amounted to 84.1% in public research institutions and 87.5% in public higher education institutions in 2019 (Government of the RS, 2021).

In the 2010–2021 period, the number of researchers mostly increased, particularly in the business enterprise sector, and mostly decreased in the public sector. In 2021, the number of researchers[58] increased again (but only in the public[59] sector) and reached a ten-year peak (SURS, 2023h). Per 1,000 employed persons, this meant that the EU average in 2021 was exceeded, but Slovenia still lagged behind the innovation leaders.[60] In the business enterprise sector, which has approximately 60% of researchers (EU: 56.3%; IL: 68.3%), their number has mostly increased in the last ten years, which has had a positive effect on the sector's innovation capacities. The opposite trend can be seen in the public sector (IMAD, 2022d), which, among other things, differs from the business enterprise sector in that it has a much smaller share of young researchers.[61] These changes in the public sector in the last decade could be related to the implementation of the Fiscal Balance Act following the global financial crisis and lower wages of public sector researchers. This is confirmed by data on the gap between the income of doctors of science (salaries and all other income) under 35, employed in the business enterprise and government sectors, which is in favour of the business enterprise sector and was higher in 2020 compared to 2009. Due to better employment opportunities in the business enterprise sector, higher education institutions are finding it difficult to acquire junior researcher candidates[62] (ARRS, 2023); some also have problems with staff retention, as younger researchers, particularly from technical faculties, often leave for the business enterprise sector after obtaining PhD (Kovačič, 2022). While researcher circulation does stimulate the transfer of knowledge between the public and business enterprise sectors, it also means weaker potential of the research and development activity in

[58] Full-time equivalent researchers are included.

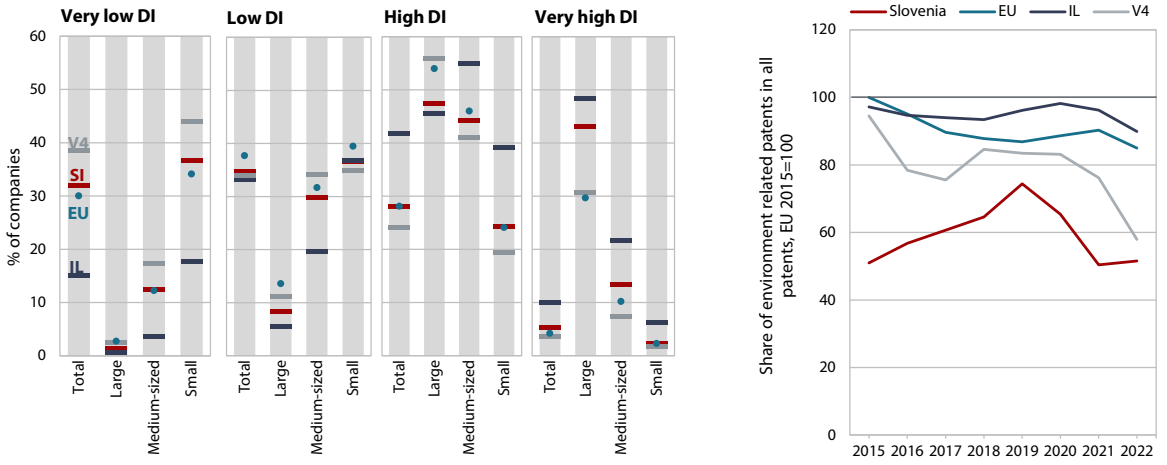
[59] The public sector includes the higher education sector and the government sector.

[60] The number of researchers per 1,000 working-age population in Slovenia in 2021 was 11.4 (EU: 10.1; IL:15.9) (Eurostat, 2023).

[61] In 2021, the share of researchers under the age of 35 was lower in the public sector than in the business enterprise sector (public: 28.3%; business enterprise: 35.4%), while the share of researchers over the age of 55 was higher (public: 18.9%; business enterprise: 10.9%) (SURS, 2023h).

[62] The gross starting salary for a young researcher is EUR 1,552.31 (32nd salary grade) and EUR 1,614.40 for a young researcher in an integrated doctoral programme (33rd salary grade) (MJU, 2023).

Figure 29: Among medium-sized and small enterprises (SMEs), there are still too many enterprises with a very low level of digital intensity, while among large enterprises the gap is mainly in very high skills (left); Slovenia also lags far behind in the development of environment-related technologies (right)



Sources: Eurostat (2023), EC (2022n); calculations by IMAD. Note: The figure on the right shows the European Innovation Scoreboard, which refers to the share of environment related inventions in total patents granted.

the public sector. A step towards improving the income situation of young researchers and assistants was taken in January 2023 by increasing the salaries of young researchers and assistants without a doctorate (Annex to the Collective Agreement for Research Activities, 2023). It is also important to improve working conditions by increasing investment in state-of-the-art research infrastructure, since poor opportunities for research work in scientific/research activities have an impact on the brain drain (Valentinčič et al., 2022) and also reduce Slovenia's attractiveness for foreign researchers and thus the opportunities for the international circulation of know-how. The development of human resources for R&D and innovation activities also needs to be improved (see Section 2.1.2).

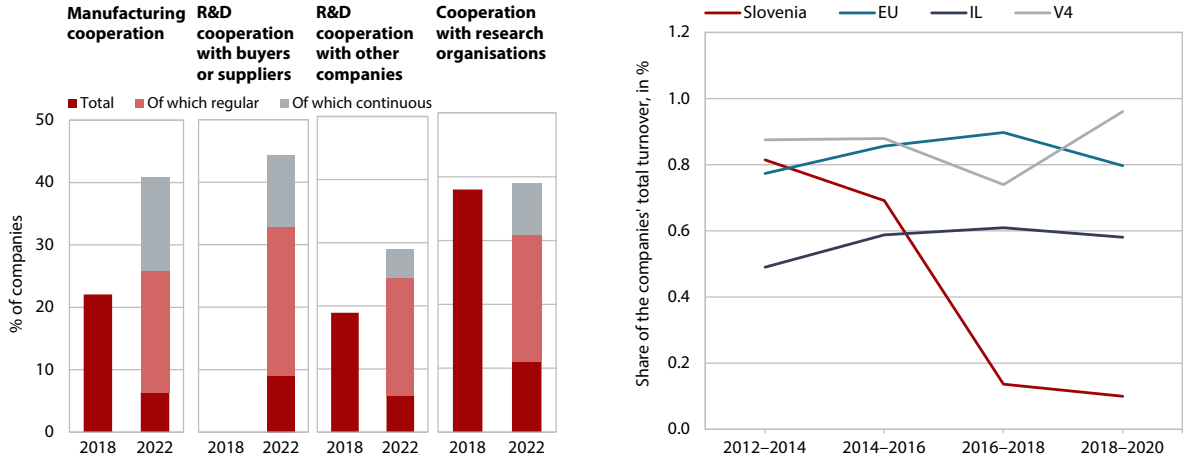
1.2.2.2 Transformation: digital, sustainable and organisational aspects

As regards *digital transition*, Slovenia is improving its ranking as a country but, compared to the average European company or citizen, it is losing its competitive edge as larger countries are making faster progress. According to the Digital Economy and Society Index (DESI), it ranked 11th in the EU in 2022, which is an improvement compared to the 2017–2020 period (13th–15th), while its lead over the EU average, in which larger countries have a greater weight, fell from 6 index points in 2017 to 2 points in 2022 (Indicator 1.17). The only area in which Slovenia is improving in international comparison is digital public services, while it is stagnating in terms of human capital in digitalisation. Particular attention should be paid to the digital literacy of the population (16–74 years), which lags behind the V4 countries, especially at the more advanced level, where Slovenia ranks only 24th in the EU. Progress in digital connectivity has also been slower than in other countries, mainly because the share of households with broadband internet access is growing too slowly, as is the availability and take-up of mobile broadband networks.

The integration of digital technologies into the business operations of Slovenian companies is still a comparative advantage, but a declining one, and support mechanisms will need to be better tailored to the specific needs of different groups of companies. Slovenia's ranking in the ninth place on the DESI index for the integration of digital technologies in the business enterprise sector remains stable, but between 2017 and 2022 the advantage over the EU average decreased (by 8 index points), while the gap with the innovation leaders increased (by 6 index points). Slovenian enterprises, including in response to the COVID crisis, have further accelerated the use of basic digital tools (e.g. communication tools) as well as online sales, while the business enterprise sector increasingly lags behind in the integration of, in particular, sophisticated (digital) technologies. This is reflected both in the intensity of technology deployment (e.g. in terms of the density of robots per employee) and in the type of technologies that are being deployed at an accelerated pace. For example, software for complex computations, simulations and data analysis using supercomputers (HPC, edge computing) is used by only 8% of the surveyed companies, with 2% of companies using it extensively (Palčič and Kovič, 2022). The difficulties in integrating digital technologies are also highlighted by the IMD data on digital transformation dynamics and Industry 4.0 readiness (IMAD, 2022d) and, in addition, by Eurostat data on the digital intensity of companies. Accordingly, we can estimate[63] that Slovenia has not made progress since 2018 in terms of the share of companies with a high or very high level of digital

[63] Changing methodologies make direct comparisons impossible.

Figure 30: The collaboration between enterprises is increasing, but collaboration with research organisations is not (left), and non-R&D innovation expenditure is also stagnant at a very low level (right)



Sources: Palčič and Kovič (2022), EC (2022n); calculations by IMAD.

intensity compared to other countries. The gap with the innovation leaders among large enterprises exists primarily among very highly skilled enterprises, while among medium-sized and especially small enterprises, the lower share of enterprises with a high or very high level of digital intensity is mainly at the expense of the higher share of enterprises with a still very low level of digital intensity. The different capabilities of enterprises of different sizes should also be better taken into account when defining support mechanisms.

In the *transition to a low-carbon circular economy*, Slovenia's business sector is not making sufficient use of the available opportunities, and, although it is accelerating the activities related to green transition, these are not ambitious enough and not sufficiently focused on the innovation of sustainable business models. According to the Eco-Innovation Index (EC, 2022f), Slovenia moved from 16th to 11th place in the 2018–2020 period, but since then the gap with the EU average has not changed and the gap with the innovation leaders is large. This suggests significant untapped potential both in terms of creating value added in activities related, for example, to environmental protection and resource management and especially in terms of product differentiation, increased use of advanced sustainable technologies and innovation of sustainable business models (IMAD, 2022d). On the side of the State, Slovenia has increased investment in environmental and energy R&D, while enterprises have strengthened the monitoring of environmental targets and the acquisition of environmental certificates (see also Indicator 1.18). At the same time, the data show that enterprises do not believe that climate change will have a significant impact on their business, which is reflected in low levels of sustainable investments,[64] largely focused on cost-cutting or regulatory compliance. On the other hand, only 20% of enterprises cite "differentiation from competitors" as a reason for adopting circular measures, and data from Palčič and Kovič (2022) also show a low share of enterprises adopting sustainable business models (IMAD, 2022d). As regards technology, according to the European Innovation Scoreboard (EC, 2022n), Slovenia lags far behind not only the EU average but also the Visegrad countries in the development of environment-related technologies in terms of the share of such patents (Figure 29, right).

Enterprises are not transforming in a sufficiently comprehensive and systematic way, and more attention should be paid to *organisational transformation* and further acceleration of ecosystem integration. The Productivity Report (IMAD, 2022d) highlighted in particular the importance of soft productivity growth factors related to design, flexibility and agility, changed mindsets and organisational models, and a greater focus on creativity, innovation and disruptive innovation. In most of these areas, Slovenia is close to the EU average, with a significant gap to the innovation leaders (ibid.). Enterprises do not engage in such transformation in a sufficiently systematic, comprehensive and ambitious way. For example, only 17% of enterprises have a digital strategy in place, suggesting a prevailing ad hoc approach to the digital transformation. Untapped opportunities for a systemic shift are also evident in the soft factors of enterprises' competitiveness, to which companies do not pay enough attention: Slovenia ranks at the low end of EU Member States in terms of investment in training and organisational capital (ibid.) and in non-R&D innovation (Figure 30, right). However, enterprises are increasingly aware of the importance of collaboration, which is above average[65] in Slovenia compared to the EU, though the gap with the innovation leaders is not closing. This shows

[64] According to the EIB (2022), only 26% of Slovenian companies have so far invested in projects related to climate change and carbon footprint reduction, the sixth lowest share in the EU (IMAD, 2022d).

[65] The assessment also points to improvements in strategic alliances based on Strategic Development and Innovation Partnerships (Bučar et al., 2022).

untapped potential, which also applies to collaboration with research organisations, which is not increasing (Figure 30, left), but also to collaboration with the State (Bučar et al., 2022).

Creativity is becoming increasingly important for the development of an innovation-driven economy and the creation of higher value added. Creativity is recognised as one of the key employee attributes for the development of an innovation-driven economy (OECD, 2019a). It is also estimated that occupations that require creativity are less likely to be threatened by the digital transformation (OECD, 2019b), as they are more difficult to automate (OECD, 2019a). Slovenia's economy still holds untapped potential in the design sector, which links research, technology, business and users and contributes to higher value added not only in high-tech but also in mature industries. In recent years, however, the situation has been gradually improving, with the Competence Centre for Design Management (KCDM) playing an important role (Murovec et al., 2022) in promoting the use of design management[66] by companies that use design to develop non-technological innovations and increase the differentiation advantage over their competitors, thus contributing to the better achievement of companies' business objectives. The creative sector also stimulates the creation of higher value added and new jobs by developing innovative practices that feed into new approaches, practices, services and products in other parts of the economy (OECD, 2022f). The Centre for Creativity (CzK, 2023) has also carried out a number of activities to promote the creative sectors in recent years, but there is still considerable untapped potential in this area to link the creative sector and companies, especially larger ones. The preparation of public tenders, which form the basis for the centre's activities, also requires more attention, as shortcomings have been identified in the past[67] (Court of Audit of the Republic of Slovenia, 2022).

1.2.2.3 Investment in the transition to a smart[68] economy

Available data on investments in the transition to a smart economy show that Slovenia lags far behind the innovation leaders and the Visegrad countries, only in the traditional part of innovation, i.e. R&D, ICT, and other machinery and equipment, by between EUR 850 million and EUR 1 billion per year. Slovenia invested 10.6% of GDP in R&D, ICT, and other machinery and equipment before 2009 and only 8.9% of GDP between 2009 and 2021. Compared with the innovation leaders, Sweden, Finland and Belgium, the shortfall in annual investment over the 2014–2021 period amounted to EUR 857 million on average (relative to GDP in 2021) (Figure 31, left). However, the gap with the three Visegrad countries was even larger over the same period, averaging 2.3% of GDP or almost EUR 990 million. In 2021, Slovenia increased this investment by 0.8 p.p. to 9.6% of GDP, narrowing the gap slightly, but two-thirds of this is due to increased investment in machinery and equipment, while the volume of R&D investment has remained close to the same level. Of the total gap, government budget R&D investment accounts for EUR 145 million per year (Figure 31, left), while the size of the gap with the innovation leaders has not changed significantly over a long period.[69] On the other hand, R&D investment by non-financial corporations, i.e. the bulk of the business enterprise sector, is trending upwards, but as a share of GDP it has stagnated at 1.3% since 2019, already lagging behind the long-term trend (Figure 31, right) and even more so behind the innovation leaders (IMAD, 2022d). The lag in ICT investment by non-financial corporations was even more pronounced, with an average decline of 0.5 p.p. of GDP between 2009 and 2021 compared to 2000–2009.

EU funding will increase smart growth investment in nominal terms in the future, but Slovenia will have lower investment as a share of GDP than the Southern and Eastern European countries.[70] Slovenia's share of funding allocated for smart growth under the Cohesion Policy (CP) and for digital transformation under the Recovery and Resilience Plan (RRP)[71] is 22%, which is higher than the average for Eastern and

[66] Design management is the intersection of design and management. It is a set of approaches, tools and skills which allows companies to use design for achieving their business and strategic goals. It is a way of thinking, managing and leading that helps to better understand users, unlock the hidden potential of their business, and change technological innovation into useful and attractive products or services (KCDM, 2023).

[67] The Court of Audit audited the performance of the Ministry of Culture in preparing and implementing the call for tenders for the selection of actions "Promotion of Creative and Cultural Industries – Centre for Creativity 2019" (hereinafter: JR CzK 2019) and the call for tenders for the selection of actions "Promotion of Creative and Cultural Industries – Centre for Creativity 2020–2021" (Court of Audit of the Republic of Slovenia, 2022a).

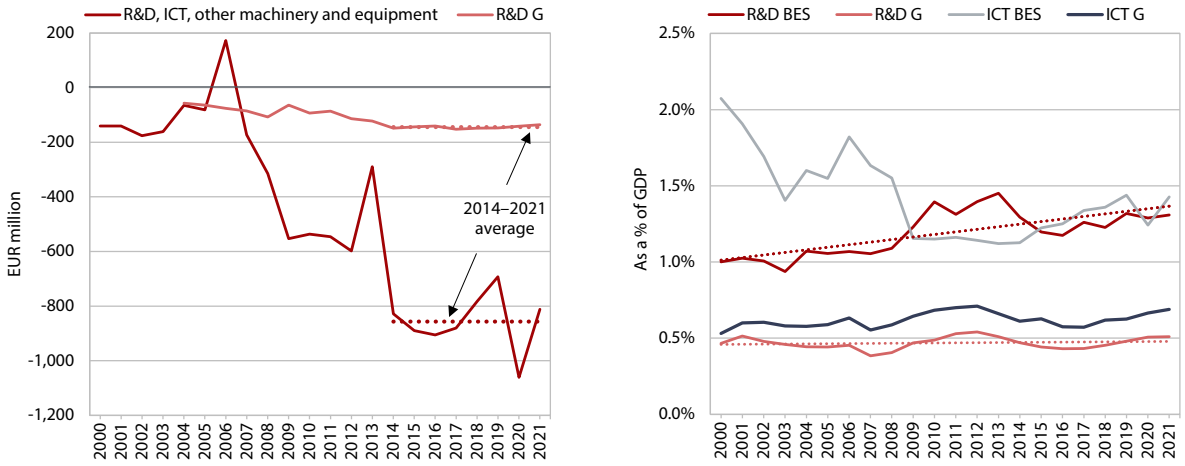
[68] Expenditure promoting the transition to a smart economy means expenditure related to Slovenia's digital and innovation transformation which contributes as directly as possible to the transition to higher value-added products. This mainly concerns the following categories of objectives: (i) research, development and innovation, (ii) digitalisation, (iii) entrepreneurship, (iv) skills development, and (v) digital connectivity (see IMAD, 2022c).

[69] In 2020 and 2021, this share is 0.04 p.p. of GDP above the long-term average, but at the same time 0.03 p.p. above the 2012 peak of 0.54% of GDP (Figure 31, right).

[70] Comparisons are particularly useful with these countries, which, like Slovenia, are major recipients of these funds.

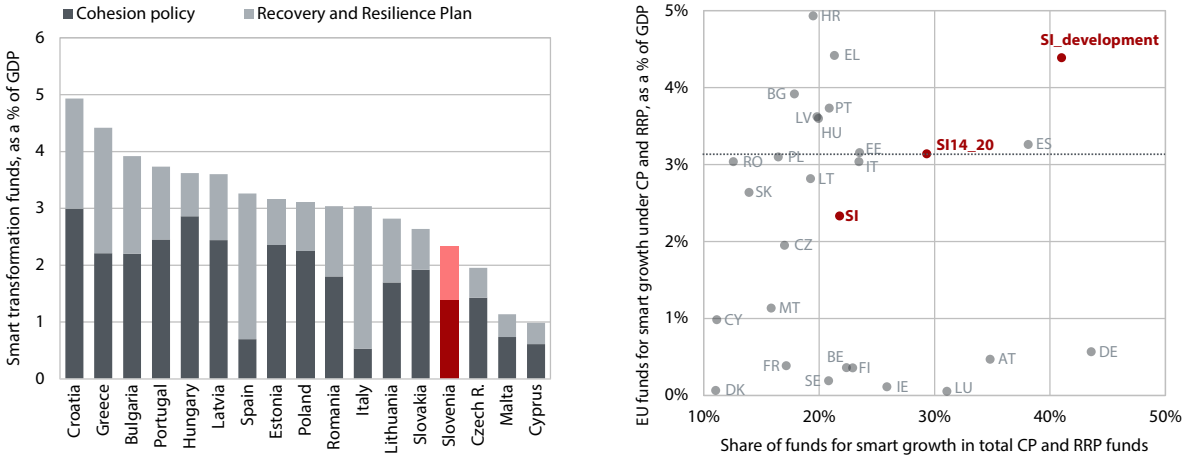
[71] Cohesion Policy data are based on official data from the European Commission, Cohesion Open Data Platform as at 23 December 2022 (EC, 2023d). The data on investments in digital transformation are based on those of Breugel (Darvas et al., 2022), taking into account all the purposes of the Breugel classification involving the digital transformation (in the case of Slovenia, EUR 490 million is taken into account).

Figure 31: The widening gap in investment in innovation-driven growth (R&D, ICT, and other machinery and equipment) compared to the innovation leaders (left) and insufficient ambition for investment in R&D and ICT by the business enterprise sector and government (right)



Sources: Eurostat (2023) and SURS (2023h); calculations by IMAD. Notes: The figure on the left shows investment gap in R&D, ICT, and other machinery and equipment in all sectors relative to innovation leaders, i.e. Sweden, Finland and Belgium, while R&D refers to the gap with the same group of countries in terms of government budget investment in R&D, both expressed as a share of GDP in the current year. The figure on the right shows the volume of investment in research and development (R&D) by the business enterprise sector (BES), i.e. non-financial corporations and general government (G). The dashed line shows the trend in R&D, BES and R&D-G.

Figure 32: Slovenia's investment in smart growth and digital transformation under the Cohesion Policy and the RRP, expressed as a percentage of GDP, is one of the lowest among the Eastern and Southern European countries – the share of smart growth funding should be significantly increased to achieve a leapfrog development



Sources: EC (2023d), and Darvas et al. (2022); calculations by IMAD. Notes: The graph on the left shows the amount of funding under the Cohesion Policy (CP), as a percentage of GDP in 2021, earmarked for smart growth (for Policy Objective 1) and under the Recovery and Resilience Plan (RRP), earmarked for digital transformation, in line with Breugel's classification of all purposes involving digital transformation. In the right graph, the ordinate shows the same funding as a percentage of GDP, while the abscissa shows the share of total funding available under the CP and the RRP. "SI14_20" shows Slovenia's share of Cohesion Policy funding for smart growth in the 2014–2020 financial framework, while "SI_development" simulates how much funding as a percentage of GDP Slovenia would allocate to smart growth and digital transformation if the share for these purposes were the same as for Ireland and Finland in the previous framework. The dashed line represents the average allocated for Southern and Eastern European countries.

Southern European countries. However, the volume of smart investments as a percentage of GDP in Slovenia will be lower than in other less developed or more crisis-affected countries due to the higher aid intensity: only the Czech Republic, Malta and Cyprus will invest less as a percentage of GDP than Slovenia, while Slovenia will spend 0.8% p.p. of GDP less on smart growth than the average of the countries of Eastern and Southern Europe. If Slovenia were to maintain the same share of available EU funding for smart growth as in the 2014–2020 period (code "SI14_20", Figure 32), it would allocate the same share of GDP to smart growth as the average of the Eastern and Southern European countries, and the leap in development would have to follow the example of the leading countries, i. e. Ireland and Finland, which allocated 41% of the available funding to smart growth in the previous financial framework (code "SI_development", Figure 32).[72]

[72] This is less than Germany's allocation for digital transformation in this framework (44%). For the shares in the previous financial framework, see also the IMAD (2022d) analysis.

As regards the transition to a smart economy, Slovenia's investment in education and other softer forms of intangible capital is insufficient. In education, investment in secondary[73] and tertiary[74] levels is particularly problematic, with the gap with the innovation leaders at each level amounting to 0.6 p.p. of GDP. Moreover, too little attention is paid to intangible capital in the business sector, both in terms of business investment in training (reflected in low training intensity) and in terms of improving organisation and business processes, where Slovenia ranks only 24th in the EU according to the EIB (2022) (IMAD, 2022d).

[73] Secondary education in Slovenia comprises the third triad of basic education and upper secondary education.

[74] Public and private expenditure on educational institutions is taken into account.

2 Learning for and through life

The educational structure of Slovenia's population has improved over the past two decades and compares favourably by international standards. Early school leaving rates remain low, but children and young people from vulnerable groups face greater barriers to education. Young people's performance in mathematical and scientific literacy is relatively high, but more attention should be paid to the development of transversal skills. There are gaps in different types of adult literacy relevant to different areas of life (financial, digital, health, etc.). Adult participation in lifelong learning changed significantly in 2021 after years of negative trends, but promoting greater inclusion and accessibility of education and learning for people with low levels of education, older people and other vulnerable groups remains a challenge.

About one-third of employees are affected by education-job mismatch. Although the number of graduates in health, natural sciences and technology (including ICT professionals) has increased over several years, it still remains insufficient to meet the growing needs of the labour market. Moreover, with a general shortage of labour due to demographic change, the skills already acquired by the population often do not match the needs of the labour market, which further restricts employment. In addition to formal education and in the face of rapid social, environmental and economic change, the continuous upgrading of existing knowledge and skills is also crucial, requiring the strengthening of adult education and (re)training (including through active employment policies). This should also be promoted in companies, which too often neglect this aspect, either because of the high costs and resulting absence of employees or because of

a lack of appropriate training. In this context, it is crucial to put in place a system for forecasting skills needs and to make such education and training more attractive to employees. Investment in human resources for innovation-driven green growth also needs to be stepped up, together with migration and integration policy measures and the proactive inclusion of vulnerable population groups (certain groups of young people, people with disabilities, the long-term unemployed). Public investment in formal education is low in comparison with other countries; public investment in human resources for research and development and adult learning has made only modest progress in recent years, and investment by companies has not contributed sufficiently to the promotion of lifelong learning.

The supply of and attendance at cultural activities has rebounded from the epidemic's decline, but in 2021 (latest data available) it was still below pre-epidemic levels. Artistic and cultural activities contribute to the development and preservation of the Slovenian language, and activities related to the development of language resources and technologies are becoming increasingly important. For many years, publishing and the general library sector have experienced mostly negative developments, but they have been increasingly digitised. Slovenia is well involved in international cultural cooperation and the challenge is to make the most of the some of the upcoming major international events (the Frankfurt 2023 and Bologna 2024 international book fairs, the 2025 European Capitals of Culture Nova Gorica and Gorizia) to promote both culture and economic development.

2.1 Education

Knowledge and skills for quality life and work (Development Goal 2):

The aim is to promote high-quality and accessible lifelong learning to improve economic competitiveness and social well-being. This will be achieved by promoting lifelong learning for the entire population, by encouraging participation in education by people with low educational attainment and other marginalised groups, by improving functional literacy among young people and adults, by ensuring the efficiency and quality of education, by linking the education system to the economy, and by developing skills to improve employability. Achieving this goal is essential for an active and healthy life, which the SDS addresses in Development Goal 1, for an inclusive labour market and quality jobs, which are addressed in Development Goal 7, for a decent life for all, which is addressed in Development Goal 3, for the competitiveness and digital transformation of the economy, which is addressed in Development Goal 6, and for sustainable development, which is addressed in Development Goals 8 and 9.

SDS 2030 performance indicators for Development Goal 2:

	Latest data		Target value for 2030
	Slovenia	EU average	
Participation in lifelong learning, in %	18.9 (2021)	10.8 (2021)	19
Share of population with tertiary education, in %	40.3 (2021)	3.4 (2021)	35
PISA results, ranking among EU Member States	Mathematical literacy: 5th place Scientific literacy: 4th place Reading literacy: 9th place (2018)		Ranked in the top quarter of EU Member States

The educational structure of the population continues to improve, with long-standing high participation in upper secondary and tertiary education. The participation rate of children in basic education has been above the EU average for many years, and youth participation rates in upper secondary and tertiary education are among the highest in the EU.[75] As a result, the share of the population with (at least) upper secondary education is increasing and is well above the EU average.[76] However, some social groups are less likely to achieve this level of education (45–64 age group, immigrants, Roma) and are therefore more likely to be at risk of social exclusion. The share of adults with tertiary education is also above the EU average and for the second year above the SDS target (35%), but it still lags behind a number of economically more developed countries (Indicator 2.1), most of all in the 25–34 age group. A large supply of highly educated young people, if mobilised in a more effective way, could provide an opportunity to accelerate the transition to innovation-driven green economic growth and achieve faster social progress. At the same time, the share of tertiary-educated persons in employment is also increasing.

Vulnerable groups of children and young people (those with special needs, Roma and immigrants) face greater barriers to accessing education than their peers and are therefore more likely to drop out of school. Pupils from lower socio-economic backgrounds are more likely to perform worse at school than their peers (Cankar, 2020) and are therefore also more likely to enrol in education programmes that lead to low-paying jobs (OECD, 2022g). A number of measures are in place for learners with special needs,[77] who still face obstacles,[78] including a lack of adequate quality of professional support (Košnik, 2021). Immigrant pupils, whose numbers are increasing,[79] are hampered by poor knowledge of the Slovenian language, as are Roma pupils, who are more likely than their peers to be absent from school (unexcused) (Knez et al., 2021). Teachers' self-assessments show that they lack the knowledge to work with more vulnerable groups of children,[80] who, as a result, also underperform their peers and are more likely to drop out of school early. The proportion of young people (aged 18–24) with no more than basic education who are not enrolled in education or training[81] is therefore higher among vulnerable groups

[75] In 2020, the participation rate of young people (aged 20–24) in tertiary education stood at 43.9% (EU: 35.2%) (Eurostat, 2023).

[76] In 2021, 94.2% of 20–24-year-olds (EU: 84.6%) and 91.3% of 25–64-year-olds (EU: 79.3%) attained at least upper secondary education (Eurostat, 2023).

[77] In the 2021/2022 academic year, 6.1% of primary school pupils had a disability (SURS, 2023h).

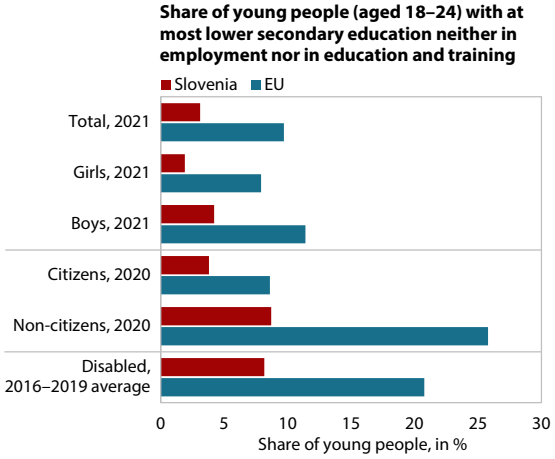
[78] For example, people with disabilities face physical barriers in schools (Human Rights Ombudsman, 2022, Advocate of the Principle of Equality, 2022), and the rights of deaf people are often not adequately guaranteed (Advocate of the Principle of Equality, 2021b).

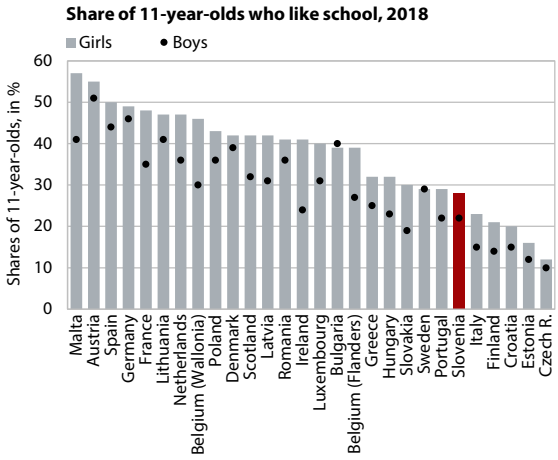
[79] In the 2021/2022 academic year, 14,136 immigrants attended basic school (SURS, 2023h) and 5,159 upper secondary school (SURS, 2022b).

[80] According to the TALIS 2018 survey, in Slovenia, 23.2% of teachers in lower secondary education (the third triad of primary school in Slovenia) reported the need for additional skills to work with pupils with special needs, and 14.3% of teachers reported the need for additional skills to work in classrooms with immigrants and people from different cultures (OECD, 2019d).

[81] The share of 18–24-year olds with no more than basic education who are not enrolled in education or training is one of the indicators used to monitor the implementation of the European Pillar of Social Rights (EC, 2021b).

Figure 33: The share of early school leavers is low but not negligible for some of the groups (left); low percentage of pupils who like school (right)





Sources: Eurostat (2023) and OECD (2022b) (left) and WHO (2020a) (right).

(Roma[82], pupils with disabilities and immigrants) than among their peers. In 2021, they accounted for 3.1% (EU: 9.7%), which is the lowest share in the last ten years (Eurostat, 2023) (Figure 33, left), but on average they were more likely to be excluded from the labour market or to be employed in lower-paying jobs, which increases the risk of social exclusion. Their lower inclusion may also mean a loss of potential labour force resource (see Section 2.2).

Education quality indicators for children and young people are good by international standards according to the latest available data, but some skills need to be improved. The quality of early childhood education has a positive impact on children's personal and cognitive development and prepares them for primary school. In Slovenia and 10 other EU Member States, pre-school teachers are required to complete tertiary education (EC et al., 2022). A better pre-school teacher/child ratio than the EU-22 average allows for higher quality early childhood education (OECD, 2022c), while the kindergarten curriculum needs to be updated (Marjanovič Umek, 2021). Some other programmes also show good results: according to PISA 2018 (the most recent data available), 15-year-olds' scores in reading, mathematics and science, an indirect indicator of the quality of education, were above average[83] in international comparisons. The SDS target (by 2030) of being in the top quarter of EU Member States was met in mathematics and science literacy, but not in reading literacy (Indicator 2.4). Various analyses show that education should also promote tolerance, inclusion, multiculturalism and critical thinking among learners, as well as develop their social skills and creativity – all of which are increasingly important to address current and future societal challenges (IMAD, 2021a). Entrepreneurship[84] and ICT are less well represented in education than in most other EU Member States, as computing and IT are not compulsory subjects in primary schools (EACEA, 2022). Due to poorer computer facilities in schools, 15-year-olds spend less time using the internet in class than their EU peers (OECD, 2019c).[85]

The percentage of children and young people who like school is relatively low. The attitudes to learning that children and young people develop during their education are important for the development of a culture of lifelong learning and for their attitudes to education and training in later life. Negative experiences during regular schooling can discourage them from lifelong learning and the acquisition of new knowledge and skills. According to the Health Behaviour in School-Aged Children survey, around a quarter of 11-year-olds and 12% of 13-year-olds liked school, the lowest level since 2002 (Jeriček Klanšček et al., 2019).[86] In 2018, the proportion of girls and boys who liked school was among the lowest in the EU (see Figure 33, right, for 11-year-olds); they were more stressed than their peers in most EU Member States by having to work for school[87] and they rated support from teachers poorly, though support from their classmates better. The quality of relationships with teachers and classmates and their support have an impact on young people's well-being and their overall life satisfaction. The percentage of children who like school is higher among secondary school pupils than basic school pupils[88] and among the highest in the EU for both girls and boys (WHO, 2020a).

[82] The Ninth Report of the Government of the Republic of Slovenia on the Status of the Roma Community in Slovenia highlights the problem of early school dropout among Roma (Government of RS, 2022b).

[83] In Slovenia, 15-year-olds are generally enrolled in upper secondary schools.

[84] In 2021, Slovenia ranked 18th among the 19 EU Member States included in the GEM survey in terms of the presence of entrepreneurship content in basic and secondary education, with only Poland ranking worse than Slovenia (GEM, 2021).

[85] According to the PISA 2018 survey, 15-year-olds use the internet for 58 minutes a week in class (EU: 71.7) (OECD, 2019c).

[86] Data have been available since 2022.

[87] In 2018, 35.0% of 11-year-olds and 57.9% of 13-year-olds reported that working for school was a burden (Jeriček Klanšček et al., 2019).

[88] In 2018, 37.6% of 15-year-olds said that they liked school (Jeriček Klanšček et al., 2019).

Box 2: Different types of adult literacy

According to the latest survey from 2015, functional literacy among adults is low in Slovenia.[1] Functional literacy is the foundation for the development of other types of literacy and is essential for adults to live and function successfully in society. The lack of data makes it difficult to assess progress in functional literacy in Slovenia, as the most recent data available are from the 2015 PIAAC International Survey. These show low levels of functional literacy among adults by international standards.[2] Several projects have been implemented since the publication of these data, but they have not had a system in place to measure their impact. Under the auspices of the OECDA, a new cycle of the PIAAC survey is being conducted from 2018 to 2023, in which Slovenia is not participating, so up-to-date data on functional literacy will not be available (Court of Audit of the Republic of Slovenia, 2022b).

The digital, health, financial and other literacy skills of adults, which are essential for healthy and active living, need to be improved. According to the 2021 data,[3] the share of the population aged 16–74 *with at least basic digital skills* was below the EU average and far from the average of innovation leaders, entirely due to lower advanced skills[4] (Figure 34, left). The low digital skills of the people with low educational attainment, older people (aged 55–74), immigrants, the unemployed and the inactive stand out, so they may find it more difficult to cope with the challenges of digitalisation. Media and information literacy also requires more attention. In terms of *foreign language* skills, the share of adults who say they do not know any foreign language was lower than the EU average in 2016 (latest data available) (Slovenia: 15.9%, EU: 31.8%). With the increasing number of immigrants and the presence of members of different cultures, as well as the negative attitudes of the majority population towards these social groups,[5] more attention needs to be paid to the development of adults' *intercultural skills*. An active and healthy lifestyle (Section 3.2) is linked to *health literacy*, which is low in Slovenia. In 2020, 48% of the population (aged 18 and over) had limited health literacy.[6] There are no major differences between socio-economic groups, but low literacy is more pronounced among people with low educational attainment and those aged 70 and over. Various education, information and awareness-raising activities on sustainable development are available for adults (IJS, 2022), but in view of the insufficient sustainable behaviour of the population[7] and environmental, climate and current energy crises, there is a strong need to strengthen such education, including energy literacy. Efficient energy management helps people to alleviate energy poverty and to spend their income in a more efficient way. The latter is also important for financial literacy, which is low in Slovenia by international standards[8] and even lower in the other EU Member States surveyed. The constant need to acquire knowledge and skills requires adults to develop *the learning to learn competence,*[9] which needs to be developed especially in people with learning difficulties. *Social and civic competences and creativity* also need to be developed in the context of active life and social inclusion.

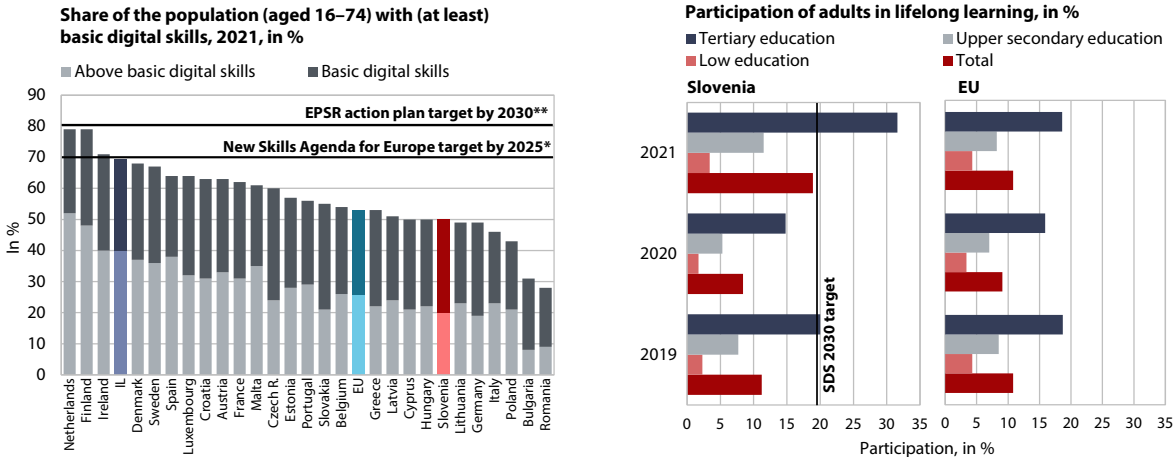
[1] Functional literacy in the International Survey of Adult Skills (PIAAC) includes literacy and numeracy skills (OECD, 2017c).
[2] In 2015, 400,000 adults in Slovenia had low literacy and numeracy skills, below the functional literacy threshold, according to the international PIAAC Adult Skills Survey (OECD, 2017c). Literacy and numeracy skills are below the average of the 19 EU Member States that are members of the OECD (2016b).
[3] In 2021, the methodology for the calculation of the indicator changed (Eurostat, 2023).
[4] In 2021, 50% of Slovenia's population aged 16–74 had at least basic digital skills (EU: 54%); of these 30% had basic digital skills (EU: 27%) and 20% had advanced digital skills (EU: 26%) (Eurostat, 2023).
[5] According to the Slovenian Public Opinion 2022/1 survey, 4.1% of respondents are in favour of Slovenia not allowing people of other nationalities to immigrate, 73.4% are in favour of allowing some or very few to immigrate, 42.3% would not want a Roma as a neighbour, 19.1% would not want a Muslim as a neighbour, 12.9% would not want an immigrant or a foreign worker as a neighbour, and 12.6% would not want a person of another race as a neighbour (Hafner-Fink et al., 2022).
[6] In the 2020 WHO International Adult Health Literacy Survey (18 years or above) conducted in Slovenia by the National Institute of Public Health (NIPH), individuals could score between 0 and 100 points. Individuals with limited health literacy scored a maximum of 66 points (Vrdelja et al., 2022).
[7] More people in Slovenia are taking action against climate change than the EU average, but at the same time 61% strongly or fairly agree that their consumption habits have a negative impact on the environment (Eurobarometer, 2021a).
[8] Financial literacy is measured by the OECD using the OECD/INFE scoring methodology and measures a set of basic financial skills, behaviours and attitudes. Scoring the maximum of 21 points effectively means that an individual has acquired a basic level of understanding of financial concepts. On average, adults in Slovenia scored 14.7 points. 14 EU Member States participated in the survey (OECD, 2020b).
[9] The learning to learn competence is the ability to learn and persist in learning, to organise one's own learning. This includes good management of time and information, both individually and in groups (SIAE, n.d.).

Many pupils experience personal distress because of school, which, among other factors, has a negative impact on their mental health (see Section 3.1).

Adult participation in lifelong learning turned positive in 2021 after years of decline, but the participation of vulnerable groups remains low. After several years of decline, adult participation in lifelong learning approached the SDS 2030 target in 2021 (Indicator 2.6). The strong increase was mainly due to the dramatic expansion of online education, the acceleration of publicly funded training, which had stalled after the outbreak of the 2020 epidemic, and the large number of free training courses on offer. The new figure also differs slightly due to a methodological change.[89]

[89] In the Active and Inactive Population Survey, which is the source of data for the calculation of the adult participation in lifelong learning

Figure 34: Digital skills gap in the population (aged 16–74) for most EU Member States (left) and strong increase in adult participation in lifelong learning in 2021, but with modest progress for those with low educational attainment (right)



Source: Eurostat (2023). Notes: * Objective of the European Skills Agenda for sustainable competitiveness, social fairness and resilience by 2025. ** Objective of the European Pillar of Social Rights Action Plan by 2030.

In terms of activity status (employed, unemployed and inactive), adult participation in lifelong learning in 2021 increased most among those in employment, which is a positive development after a marked stagnation in 2020. However, the participation of people with low educational attainment and older people, the inactive and immigrants, who were already less likely to participate in education before the epidemic, increased less than that of other groups (for people with low educational attainment, see Figure 34, right). This may be due to their (on average) less developed digital skills and poorer ICT equipment. The many gaps in adult literacy (Box 2) also highlight the need to develop (additional) education programmes, including online, and to encourage adult participation. More attention is also needed to ensure adequate quality of education. Slovenia ranks below the EU average in this respect (Eurofound, 2022a). The culture or attractiveness of lifelong learning also needs to be improved because, according to the 2015 PIAAC survey, almost half of adults who have not participated in education also do not wish to do so (OECD, 2017a).

2.1.1 Knowledge and skills mismatches

In addition to growing labour shortages due to demographic reasons, knowledge and skills mismatches are further hampering the availability of (adequate) human resources to address social, environmental and economic challenges. High economic activity and demographic changes have led to an increasing number of employers again facing a shortage of (suitable) staff for employment from the second half of 2020 onwards (see Figure 35, left, and Chapter 1). The supply of human resources is also limited by mismatches in education or skills and competences.

For many years, employers have been facing a shortage of workers with upper secondary vocational and professional education,[90] as well as a shortage of tertiary-educated workers.[91] However, there is an oversupply in some occupations, such as occupations in sales, delivery, purchasing, etc., graduates in the arts and humanities, and some social science graduates (ESS, 2022c). The surplus of occupations requiring tertiary education therefore requires more careful consideration in terms of their employability. In particular, job candidates lack greater transferability of competences,[92] job-specific and digital skills, and foreign language skills (ESS, 2022b).

Tertiary education is too slow to respond to the needs of social, environmental and economic development. The employment rate of young people with tertiary education has mostly increased since 2015,[93] with the share of young people (aged 25–34) with tertiary education in occupations requiring at most upper-secondary education increasing over a longer period.[94] This suggests that there is a gap between tertiary enrolments and employers' needs, which has

indicator, the target population is all residents of private households in Slovenia from the first quarter of 2021 and all residents of Slovenia up to and including the end of 2020 (SURS, 2022c).

[90] Such occupations with secondary vocational and professional education include HGV drivers, welders, manual workers in manufacturing, cooks, bricklayers, waiters, cleaners, caretakers and domestic helpers in offices, hotels and other establishments, shop assistants, toolmakers, and warehouse workers (ESS, 2022a).

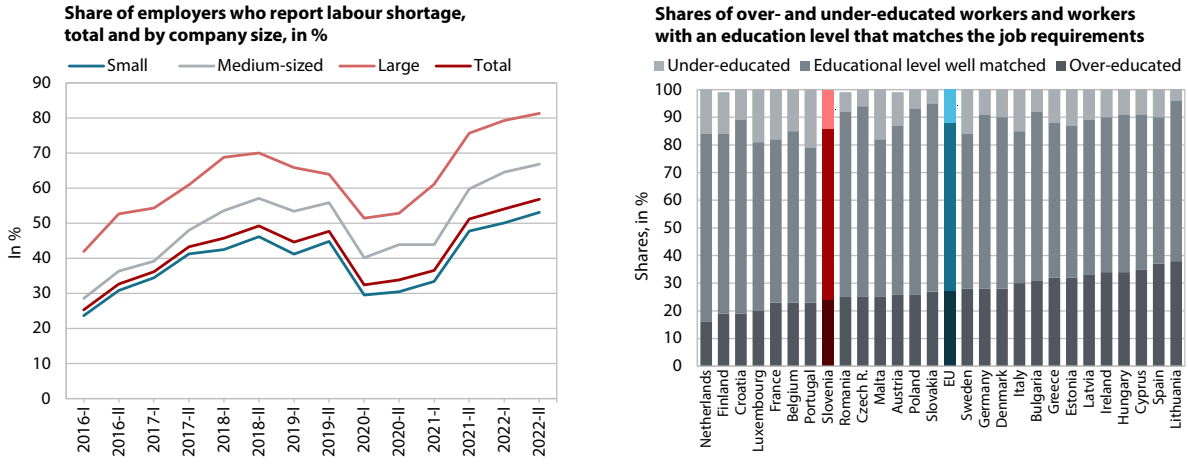
[91] According to the 2023 Occupational Barometer estimates, the shortfall in occupations requiring tertiary education includes in particular a lack of health and education professionals, ICT specialists and other engineers, and some social science graduates (e.g. lawyers) (ESS, 2022c).

[92] The greater the transferability of general competencies, the greater the employability. General competences include reading, writing, numeracy, foreign languages, computer skills, communication skills, problem solving, critical and analytical thinking, leadership, motivation, teamwork, lifelong learning, career planning, working under time pressure, planning and organisation, initiative, adaptability and flexibility, etc.

[93] The employment rate of young people (aged 20–34) with tertiary education within three years of leaving school was 88.7% in 2021, above the EU average (82.8%) (Eurostat, 2023).

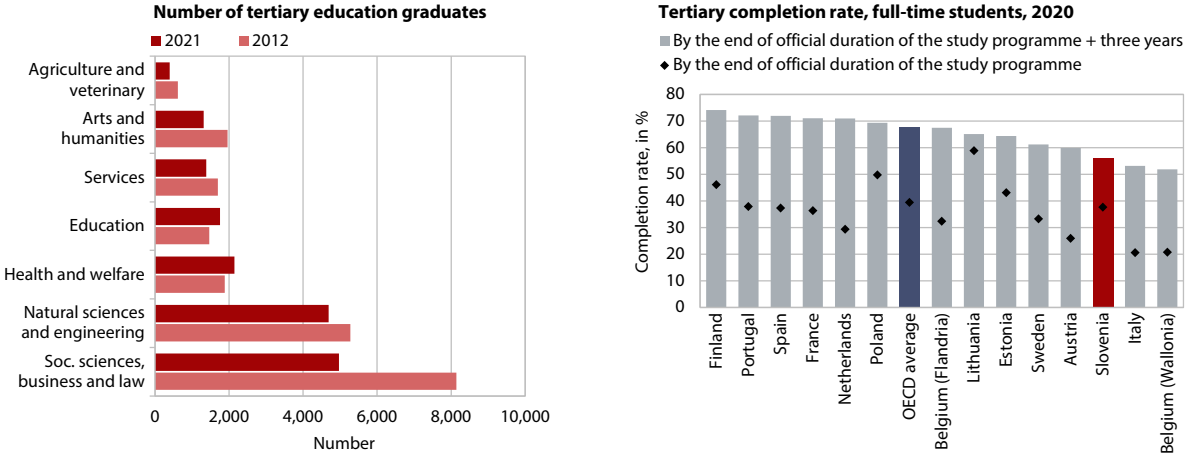
[94] It increased from 9.8% to 23.3% between 2008 and 2021 (SURS, 2023h).

Figure 35: In 2022, Slovenia had an unprecedented labour shortage (left); in 2021, around one-third of employees were over- or under-qualified for their job (right)



Sources: ESS (2022b) (left), CEDEFOP (2022) (right). Note: * According to the 2021 Cedefop 2nd European skills and jobs survey.

Figure 36: A decrease in the number of graduates in most fields of education (left) and low study performance in international comparisons (right)



Source: SURS (2023h) (left), OECD (2022c) (right). Notes: The tertiary completion rate is the percentage of students who enter tertiary education for the first time and graduate from it in a given number of years (SURS, 2023h).

also been observed among tertiary education students[95] and which has persisted despite many years of changes in the structure of students enrolled in tertiary education (Indicator 2.2) and, consequently, in the structure of graduates (Figure 36, left, and Indicator 2.3). Enrolment disparities are related to a lack of cooperation between higher education institutions and employers and the inadequate preparation of students for the labour market during their studies,[96] insufficient numbers of enrolment places in some study programmes, and a lack of interest among young people in some study programmes. Therefore, the strategic planning of (future) human resources development needs to be considered as a matter of priority. In addition to knowledge and skills mismatches, the labour market supply of graduates is negatively affected by long study times and high drop-out rates, which are reflected in low graduation rates (Figure 36, right). The internationalisation of tertiary education is also an opportunity to attract staff, with a positive shift in recent years, reflected in the increasing share of foreign students enrolled in tertiary education.[97] In view of the needs of the green and digital transitions and other factors, attention should also be paid to the development of lifelong learning programmes in higher education institutions. These programmes should enable higher education staff to acquire additional skills.

[95] According to the EUROSTUDENT VII 2018–2021 survey, almost one-tenth of those enrolled in tertiary education in Slovenia do not think they will get a job in their field of study, because they do not see job opportunities there, while 29.6% think they will get a job in their field but not immediately (PI, 2021).

[96] 23.5% of students consider themselves (very) poorly prepared for the Slovenian labour market (PI, 2021).

[97] The share of foreign students in total tertiary enrolments was 7.8% in 2020 (latest international figure) (EU-22: 8.2%) (OECD, 2022c), rising to 9.5% by the 2021/2022 academic year (SURS, 2023h).

Education and (re)training of employees also need to be strengthened to ensure adequate human resources. As with job applicants, there are mismatches in the educational background of employees. They are manifested in employment in occupations requiring lower or higher levels of education and may also be reflected in less use of employees' skills or in the need for additional education (Figure 35, right).[98] However, greater participation of employees in education and (re) training is also necessary in view of the rapidly changing needs for knowledge and skills, with a need to strengthen both job-specific and transversal skills (Domadenik et al., 2023). Moreover, companies often respond to a lack of suitable candidates by (re)training existing employees. According to the Employment Forecast, 22.3% of companies facing this type of problem in the second half of 2022 used this measure (ESS, 2022b). In 2021, the participation of persons in employment in lifelong learning increased significantly and was higher than the EU average (Indicator 2.6). However, companies are often discouraged by the high costs of engaging their employees in further vocational education and training, and many companies cannot afford to have their employees absent from work.[99] Employees who have had negative experiences during their regular training are often discouraged from training. It is therefore also important to develop a culture of lifelong learning in companies (Domadenik et al., 2023). Furthermore, the lack of supply of relevant education and training programmes discourages a significant proportion of enterprises from taking up education and training.[100] Particular attention should be paid to medium-term skills needs, for which a system of their monitoring and forecasting should be put in place. An example of such good practice is the career platforms developed by SRIPs (The Strategic Research and Innovation Partnership) (Bučar et al., 2022). However, such platforms cover only part of the business sector and do not provide a comprehensive picture of skills needs. An effective forecasting system for needs and skills would also allow for a more effective migration (including the return of Slovenian citizens) and integration policy, which plays an important role in addressing the shortage of adequate human resources.

Young people who are neither in employment nor in education and training (NEET), hard-to employ adult groups, and immigrant women are a potential source of labour. In 2021, the NEET rate (for those aged 15–29) has fallen to its lowest level in a decade, reflecting improved market conditions. With a high participation of young people in upper secondary and tertiary education, it is one of the lowest rates in the EU.[101] The NEET rate is higher for young people aged 20 and over, as young people tend to complete upper secondary and tertiary education and enter the labour market (higher for women than for men); therefore, the link between education and the labour market needs to be improved to speed up the transition from education to employment. In addition, the NEET rate remains higher for certain groups of young people (with low educational attainment, immigrants, especially immigrant women[102], and young people with disabilities[103]) who are therefore more likely to be at risk of social exclusion. It is therefore important to remove barriers to their participation in education, to improve the targeting of active employment policies and to strengthen lifelong career guidance. The unemployed and other jobseekers are also a source of labour force, albeit in decreasing numbers, and their participation in education and training programmes under active employment policy is low by international comparison.[104]

2.1.2 Human resources for the needs of a (long-lived) society and an innovation-driven green and smart transformation

The development of human resources for healthcare and long-term care lags behind the growing needs of a long-lived society and the problem will worsen if timely action is not taken. Demand for certain professions requiring upper secondary and tertiary education in healthcare and long-term care has been increasing for several years due to demographic reasons, and there is a shortage of suitable staff (ESS, 2022c). Among the *professions requiring upper secondary education*, the shortage of healthcare and nursing staff is particularly acute, which is linked to a general shortage of labour and employment opportunities in other professions, as well as to a decline in the number of young people with upper secondary education in healthcare and social services. Young people's enrolment in this field of education has declined for demographic reasons (smaller generations of young people), but also because of a decline in interest.[105] Among the *professions requiring tertiary education,* the shortage of graduates in

[98] In 2021, 24% of the workforce in Slovenia was employed in jobs requiring a lower level of education (EU: 27%) and a smaller but not insignificant proportion (14%) in jobs requiring a higher level of education (EU: 12%) (CEDEFOP, 2022).

[99] In 2020, 28.9% (EU: 22.7%) of companies in Slovenia did not provide continuing vocational education and training to their staff because the costs of education and training were too high and 21.0% (EU: 30.1%) because of high workload and limited time (Eurostat, 2023).

[100] In 2020, 11.6% (EU: 14.6%) of companies in Slovenia did not provide continuing vocational education and training to their staff due to a lack of suitable offers of education and training programmes (Eurostat, 2023).

[101] In 2021, the NEET rate in Slovenia (for young people aged 15–29), which is one of the leading indicators of the European Pillar of Social Rights Action Plan (EC, 2021b), was 7.3% (EU: 13.1%) (Eurostat, 2023).

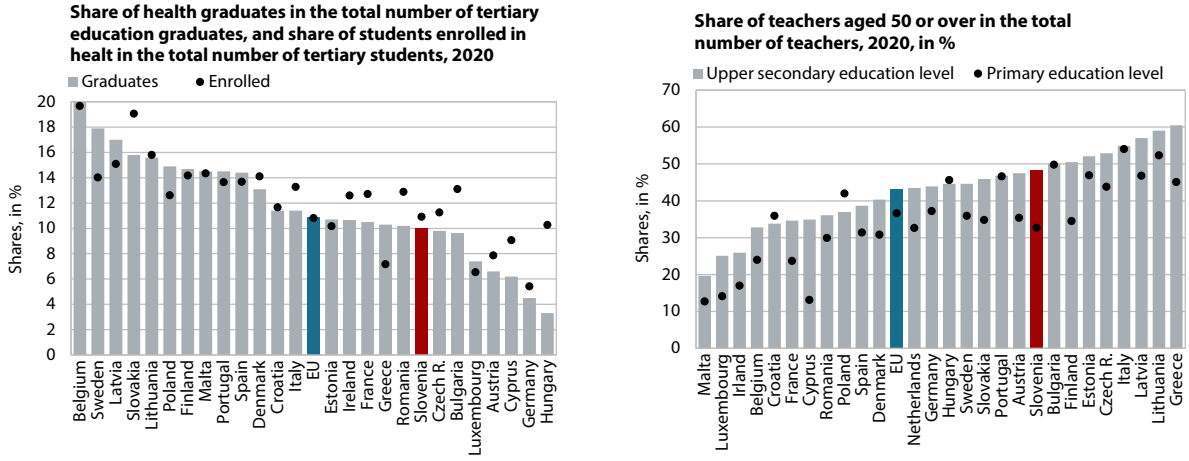
[102] In 2021, the NEET rate (for young people aged 15–29) was 25.0% for female non-citizens of Slovenia (female citizens of Slovenia: 7.2%) and 7.4% for male non-citizens of Slovenia (male citizens of Slovenia: 6.5%) (Eurostat, 2023).

[103] According to average data for the 2016–2019 period, the NEET rate in Slovenia for young people without disabilities was 7.3%, 33.3% for young people with severe disabilities and 11.9% for those with moderate disabilities (OECD, 2022b).

[104] In 2020, 4.6 participants per 100 persons wishing to work were enrolled in education and training programmes under active employment policy in Slovenia, which is lower than the EU average (8.4 participants) (Eurostat, 2023).

[105] In the 2020/2021 and 2021/2022 academic years, the share of young people enrolled in healthcare and social services was 7.6%, the lowest since the 2016/2017 academic year (SURS, 2023h).

Figure 37: A large gap in the share of health graduates and enrolments in tertiary health programmes with the best countries (left), and a high share of secondary school teachers aged 50 or over (right)



Source: Eurostat (2023). Notes: The data for primary education level (the first two triads of primary education) for Slovenia also include the third triad of primary education, which is otherwise included in the statistics for lower secondary education.

health programmes is particularly acute, their numbers having not changed significantly since 2017; the share of total graduates in 2020 (latest international figures) was the highest since 2013 but one of the lowest among the EU Member States (Figure 37, left). While enrolments in healthcare programmes have increased since the 2014/2015 academic year, there remains a significant staffing gap in the sector, given the growing needs of a long-lived society (Section 3.2). Given the long-standing strong interest of young people in medical and nursing studies (the number of applications for study programmes is much higher than the number of enrolment places), the challenge is to increase the number of enrolment places in medical sciences, in particular in medicine and nursing, psychology, etc. One step in this direction is to increase the number of enrolment places for the study of medicine at the Faculty of Medicine at the University of Maribor and the capacity of the Faculty of Medicine at the University of Ljubljana. A more proactive migration and integration policy will also be needed to attract workers from abroad in order to fill the gap in human resources.

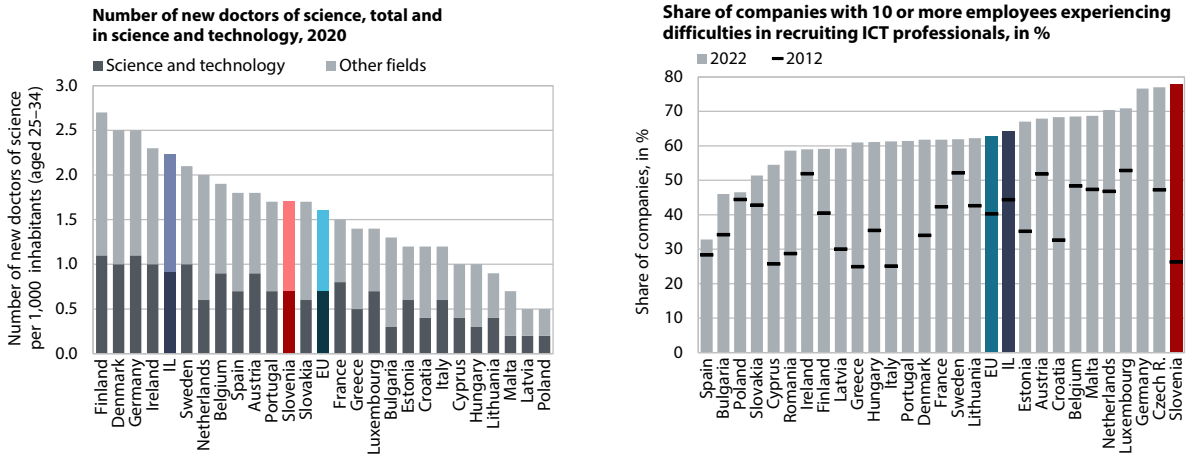
The lack of adequate human resources in schools is a constraint on the delivery of quality education. Kindergartens have been facing a shortage of pre-school teachers and assistants in recent years (ESS, 2022c), making it increasingly difficult to provide pre-school education according to standards and norms. There is also a shortage of teachers, specialists and other staff in primary and secondary schools. In addition to cyclical factors (high demand in the labour market provides ample opportunities for employment in occupations outside the education sector), the shortage of staff in the education sector and the general labour shortage for demographic reasons can also be attributed to the low prestige of the teaching profession,[106] larger generations of children and young people, and the increasing retirement of older teachers. All this leads to the recruitment of staff who do not fulfil the formal conditions for working in the education sector and to negative selection, which is extremely unfavourable in terms of ensuring the quality of education. This problem could be exacerbated in the coming years by the high proportion of teachers aged 50 or over (Figure 37, right) and the associated increase in the number of retirements, which calls for more attention to be paid to enrolments in teaching degree programmes. Greater attention should also be paid to increasing the attractiveness of the teaching profession (also for existing employees). This is suggested by the findings of the 2018 International Teachers Survey, according to which 27.7% of teachers (and 29.9% of young teachers with no more than five years of work experience) wonder whether they would be better off in another profession. Such measures have already been taken by several EU Member States facing similar teacher shortages as Slovenia (EC, 2022t). In January 2023, Slovenia took a positive step towards improving the income situation of pre-school teacher assistants,[107] and in 2023, for the second consecutive year, the Ministry of Education (MVI) provided scholarships to students of pedagogical studies to reduce the staffing gap in education (MIZŠ, 2022a; MVI, 2023).

Human resources development for R&D and innovation-driven green growth is too slow. The number of new PhDs has mostly fallen since 2014; expressed per 1,000 inhabitants (aged 25–34 years), it was slightly above the EU average in 2020 but lagged well behind the innovation leaders (Figure 38, left)

[106] According to the 2018 TALIS International Survey, only 5.6% of teachers in lower secondary education (Slovenia's third triad of primary education) think that the teaching profession is valued in society, which is significantly lower than the average of the 23 EU Member States (including the UK) that were OECD members in 2018 (17.7%); the share was lower only in Slovakia (OECD, 2019d).

[107] See Annex to the Collective Agreement for the Education Sector in the Republic of Slovenia (2023).

Figure 38: The number of new PhDs lags behind innovation leaders (left); Slovenia's share of enterprises having difficulties in recruiting ICT specialists is the highest among EU Member States (right)



Source: Eurostat (2023).

(see Indicator 2.3). Despite largely positive trends since the 2016/2017 academic year, the number of students enrolled in doctoral programmes in 2021/2022 was still far from the peak reached in the 2011/2012 academic year. The number of young researchers invited by the State has increased since 2018 (ARRS, 2023). Particular attention needs to be paid to the development of future researchers to step up research for green transition (see Section 1.2.2). The share of science and technology graduates, which is important for boosting innovation activity in enterprises, has remained roughly the same since 2019 (just over 28%) and is higher than in 2012,[108] but their number is far from the 2012 peak and, like the number of science and technology enrolments (Indicator 2.3), is not keeping pace with demand (IZS, 2022).

Faster development of human resources is a prerequisite for the green transition. In order to increase the competitiveness of the business sector and generate higher value added, we also need to accelerate the supply of experts for the development of green technologies and eco-innovations (see Section 1.2.2) and new occupational profiles. Furthermore, the introduction of new technologies and changes in many areas in enterprises (design, manufacturing, etc.), which are a prerequisite for a successful green transition, will require employees in many occupations to acquire additional skills. There is also a growing need for education and (re)training, especially for those working in occupations that will be phased out as a result of the green transition, for redeployment to other occupations and for new jobs (CEDEFOP, 2021). In Slovenia, various activities have contributed to the development of employees' competences for the green transition in recent years (the activities of the SRIP – Circular Economy[109] and of the Competence Centre for Circular Economy[110], the LIFE IP CARE4CLIMATE programme[111]), but given the high demand for such skills, the provision of such education and training programmes needs to be further strengthened.

The development of ICT specialists and other digital professions lags behind the major needs of the digital transformation. The business sector is facing a growing shortage of ICT specialists: in 2022, 78% of companies faced this problem (Figure 38, right), the highest share among EU Member States. The lack of adequate staff or skills, which is the most common problem in business digitalisation,[112] is linked to the insufficient number of ICT graduates. In 2020, the share in the total number of tertiary education graduates was 4.1%, close to the EU average but lower than in the innovation leaders. Although the number of ICT enrolments has increased since the 2017/2018 academic year (SURS, 2023h), this does not guarantee that the estimated needs for the coming years will be met. The estimates show an increase in the business sector's needs for ICT specialists and other digital professions (DIH, 2021), as well as an increase in the public sector's needs.

Given the urgent need to strengthen human resources, the level of investment in education and training is insufficient. *Public expenditure on formal education* has fluctuated at low levels since 2017, after several years of decline. In 2019 (the latest international data), it lagged not only behind the innovation leaders, but also behind the EU average, most notably at tertiary

[108] Methodologically comparable data available since 2012 (Eurostat, 2023).

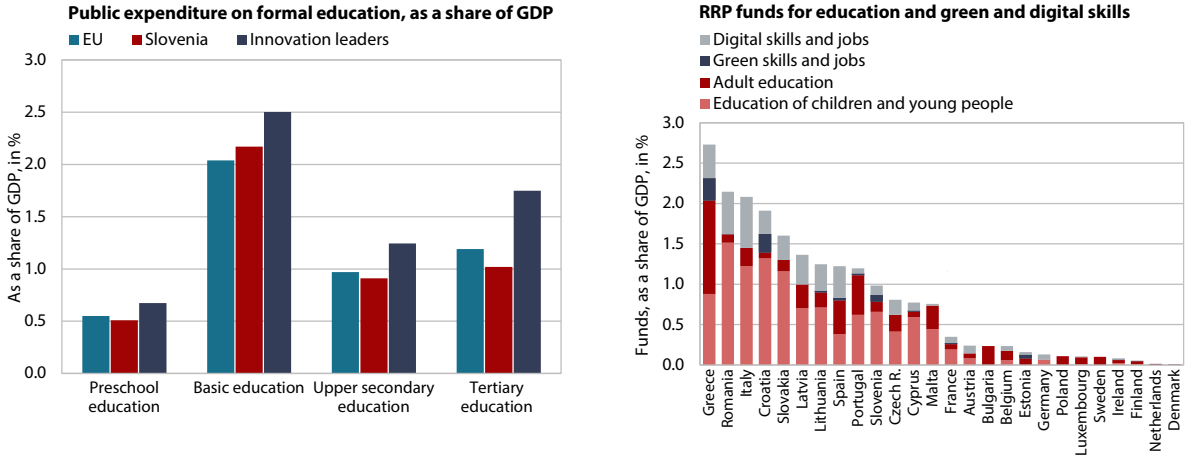
[109] SRIP – Circular Economy stands for the Strategic Research and Innovation Partnership – Networks for the Transition into Circular Economy. See SRIP-KG (2023).

[110] Competence centres are partnerships between enterprises and other organisations operating in a specific priority area of Slovenia's Smart Specialisation Strategy – S4. Their main purpose of networking is to raise the competences of the employees in the partner enterprises and to acquire new competences.

[111] Life IP CARE4CLIMATE is an eight-year integrated project that promotes the implementation of measures to achieve the greenhouse gas (GHG) reduction target more effectively through awareness-raising, education and training of key stakeholders (MOP, 2023).

[112] About a third of enterprises reported this problem in 2020 (SURS, 2023h).

Figure 39: In 2019, public expenditure on education lagged behind innovation leaders and the EU average (left), with additional funds for strengthening human resources foreseen under the Recovery and Resilience Plan, in particular for the education of children and young people (right)



Sources: Eurostat (2023) (left) and EC (2021d), EC (2023e) and EC (2022w) (right). Notes: The figure on the right does not include data for Hungary.

level (Figure 39, left), which is unfavourable for the quality of education. As regards *public investment in the development of (future) R&D human resources*, progress has been made since 2018 in terms of expenditure on the programme for young researchers, but this still lags behind its 2010 peak.[113] *Public investment in adult* education remained relatively flat over the 2018–2021 period,[114] and public expenditure on education and training for the unemployed and those in active employment has been low for many years,[115] failing to meet the growing need for lifelong learning. Another shortcoming is the inconsistency and uncertainty of funding for adult education, which is largely based on the availability of European funding (Court of Audit of the Republic of Slovenia, 2022b). *Investment by enterprises* in the continuing vocational education and training of employees, which was above the EU average in 2015 but significantly below it in 2020 (the latest data), also does not contribute sufficiently to boosting lifelong learning, meaning that enterprises made much less use of the time during the epidemic to strengthen their human resources.[116] In the coming years, Slovenia will also use the funds from the Recovery and Resilience Plan (RRP) to support the development of education for children, young people and adults and the development of digital and green skills and jobs (Figure 39, right).[117]

[113] In 2020, expenditure on the programme for young researchers amounted to EUR 26.2 million, a decrease of 17.3% compared to 2010 (ARRS, 2023).

[114] Annual expenditure on adult education was between 0.14% and 0.15% of GDP (SIAE, 2021, 2022).

[115] In 2020, expenditure on education and training for the unemployed and employed through AEP measures in Slovenia amounted to 0.05% of GDP (EU: 0.17% of GDP) (Eurostat, 2023).

[116] In 2020, enterprises in Slovenia spent on average EUR 481 per person employed (in PPS) on continuing vocational education and training (EU: EUR 618, PPS) (Eurostat, 2023).

[117] Slovenia will allocate 13.9% of total RRP funds to the education of children and young people, around 2.6% (EC, 2021d) to adult education, around 1.8% to the development of green skills and jobs (EC, 2023e), and 2.4% to the development of digital skills and jobs (EC, 2022w).

2.2 Culture

Culture and language as main factors of national identity (Development Goal 4):

The goal is to preserve and develop the national culture and Slovenian language as factors of national identity, the country's visibility, and social and economic progress. The achievement of this goal will be supported by the promotion of participation in culture, the development and preservation of culture and cultural heritage, the protection of cultural diversity, the connection with Slovenians abroad, the strengthening of cooperation between businesses and culture, and promotion of creativity and creative sectors. In addition, the SDS 2030 also identifies digitalisation as an important factor for the preservation and development of the Slovenian language, as well as access to culture and international cultural collaboration as a means of increasing the country's visibility. Cultural participation contributes to the development of functional literacy, which is addressed in Development Goal 2, and to achieving a healthy and active lifestyle, which is addressed in Development Goal 1.

Performance indicators for Development Goal 4:

	Latest data		Target value for 2030
	Slovenia	EU average	
Visit to cultural events, number per capita	2.0 (2020)	n/a	8
Share of cultural events performed abroad, in %	3.4 (2021)	n/a	3.5
Open source language resources and tools, number	494 (2022)	n/a	153

In 2021, while some containment measures were still in place, the attendance at cultural events was well below the levels before the outbreak of the COVID-19 epidemic. After a relatively favourable trend prior to 2020, the organisation of exhibitions and cultural events declined sharply due to the outbreak of the COVID-19 epidemic and, as a consequence, the number of visitors fell dramatically due to the containment measures. With the relaxation of the containment measures, more cultural events took place in 2021, but fewer than before the epidemic. Of the performing arts events, most were musical (Figure 40, left). There were also more opportunities to participate in amateur activities, which allow individuals of all ages to actively engage in cultural activities, develop creativity and encourage intergenerational cooperation (Section 3.2). All these factors contributed to an increase in attendance at cultural events in 2021, though this was much lower than before the epidemic (Indicator 2.7). On the other hand, the supply and attendance of e-exhibitions and e-events, which filled a gap in the cultural scene during the period of containment measures, decreased in 2021.[118] By organising events free of charge, performing arts institutions increase the interest and access of citizens to the arts and culture. More such activities were organised in 2021 than in the 2016–2020 period. To this end, museums and galleries organise free days for all residents (e.g. 8 February, Summer Museum Night in June) and free visits for vulnerable groups.[119] However, access to performing arts institutions and museums for people with reduced mobility or sensory disabilities remains inadequate.[120] In addition to educational institutions, museums and galleries also play an important role in education. The supply of education programmes increased before the epidemic but was curtailed in 2020 and 2021, resulting in the lower participation of children, young people and adults in these programmes.[121] The recent inscription of beekeeping and the Lipizzaner horse breeding on the UNESCO Representative List of the Intangible Cultural Heritage of Humanity is of great significance for the preservation and visibility of cultural heritage (MK, 2022a, 2022b). Culture has the potential to develop local tourism and attract foreign visitors,[122] but this potential is largely untapped and there is a lack of integration with other sectors (cultural and creative sector, tourism, etc.) (Murovec et al., 2022). Given the growing importance of digital technologies, there is also a great need to digitise cultural heritage.[123]

[118] In 2021, museums and galleries organised 123 virtual exhibitions with 526,132 virtual visits, while performing arts institutions organised 3,597 virtual events with 1,402.363 virtual visits (SURS, 2023h).

[119] In 2021, museums and galleries issued 328,613 free tickets, which was 40.2% less than in 2019. In 2021, performing arts institutions held 96.7% more free events than the year before and more than before the epidemic (SURS, 2023h).

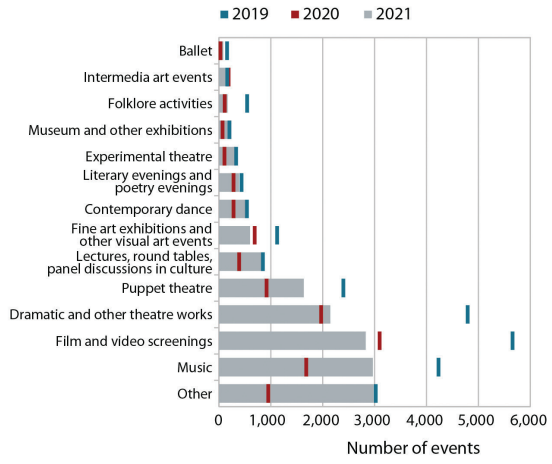
[120] In 2021, 25.5% of museums and galleries were fully accessible to people with reduced mobility and 6.4% to sensory impaired people, while 57.9% of institutions with performing arts activities were fully accessible to people with reduced mobility and 7.4% of them for sensory impaired people (SURS, 2023h).

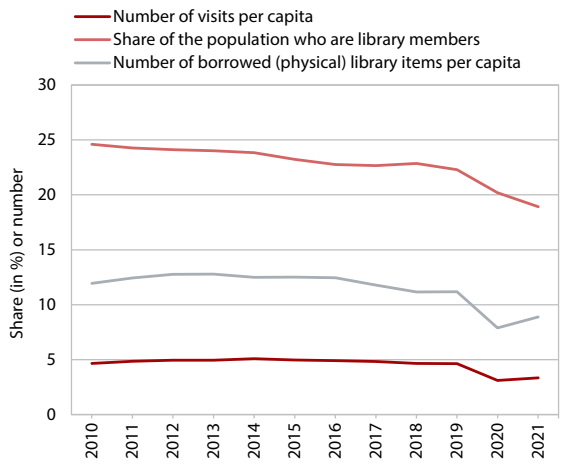
[121] In 2021, the museums and galleries for which data are available organised 63.4% more education programmes compared to the previous year (but 35.3% fewer than in 2019) and recorded 59.0% more visits by children and adolescents (45.3% fewer than in 2019) (SURS, 2023h).

[122] In 2021, museums and galleries recorded 216.794 visits by foreigners, which was 16.7% of total visits. At 30.3% in 2019, this share was even higher before the epidemic (SURS, 2023h).

[123] The extent of digitisation of Slovenika (the core national collection of the written heritage of the Slovene people) was behind schedule in 2021 (NUK, 2022a), and there is a great need for digitisation of cultural heritage in museums (Murovec et al., 2022).

Figure 40: In 2021, the number of events in performing arts institutions was still below pre-epidemic levels (left); trends in general libraries were mostly negative (right)





Sources: SURS (2023h) (left) and NUK (2023) and SURS (2023h) (right).

Trends in publishing and general libraries are unfavourable, but there are ongoing activities to develop language resources and technologies that contribute to the development and preservation of the Slovenian language. For many years, general libraries, which enable people to develop their personal culture, access information for work and everyday life, and organise various activities to help people spend their leisure time creatively, have shown mostly negative trends. In 2021, after the easing of measures to contain the epidemic, the number of visits to general libraries and the average number of items borrowed (in physical form)[124] increased but was still below pre-epidemic levels (Figure 40, right). In addition to lending library materials, general libraries organise a wide range of activities and represent basic cultural institutions, especially in small towns. It is therefore very important to encourage greater membership of libraries and greater use of library services, which are available to the whole population, and to involve people with low reading literacy (see also Section 2.1) in reading activities. The NUK II project, which is of national importance for the library sector, was launched in 2022 and is due to be completed by 2026 (MIZŠ, 2022b). For many years now, the publishing sector has also been showing unfavourable trends. The number of book titles published and their average print run in 2021 fell to the lowest level in a decade (NUK, 2022b). Several projects are underway to develop language resources and technologies,[125] and the multi-year project entitled "Development of Slovene in a Digital Environment" ended in 2022. The number of open available language resources and tools in the national CLARIN repository increased, reaching 494 at the end of 2022, far exceeding the 2030 SDS target (153). Activities were also carried out to develop communication skills in Slovenian sign language and for people with adapted communication methods.[126]

International cultural activities, which had been severely curtailed by the outbreak of the epidemic in 2020, resumed but did not reach pre-epidemic levels in 2021, as some measures to contain the epidemic were still in place. The promotion of culture abroad contributes to the country's international visibility, cooperation and the profile of the country, bearing in mind that culture plays an important role in diplomacy and international relations. The share of cultural events held abroad, which is an indicator of the promotion of culture abroad and an indirect indicator of its quality, increased with the relaxation of the measures to contain the epidemic in 2021 but has not yet reached the level of 2019. It also fell short of the SDS 2030 target (Indicator 2.8). The strengthening of international cultural activities[127] continued in 2022. On a global scale, Slovenia's participation in the World Expo in Dubai from October 2021 to March 2022 was important for the international visibility of Slovenian culture. Preparations continued for Slovenia's participation as Guest of Honour at the Frankfurt International Book Fair in 2023 (and at the Bologna Children's Book Fair in 2024), which is a great opportunity to promote and raise the profile of Slovenian literature and authors and may have a positive

[124] The borrowing of library materials (in physical form) is increasingly influenced by e-borrowing.

[125] Language resources are a collective name for language manuals (dictionaries, grammars, spelling books, etc.) and language collections (corpora and linguistic databases) that speakers use on a daily basis for independent and effective communication. In recent years, many language resources have been created or digitised, which has made them more widely available. Language technologies, often invisible as part of complex computer systems, help to find information through online search engines, check spelling and grammar, review product recommendations in online shops, listen to spoken instructions in in-car navigation systems or instructions of the message readers in household appliances, translate websites with online translators, and analyse and manage large amounts of textual data (MK, 2023).

[126] For more details, see Report on the implementation of the Resolution adopted in 2021 on the National Programme for Language Policy 2021–2025 (The Inter-Ministerial Working Group for Monitoring the Implementation of Slovenia's Language Policy, 2022).

[127] Through a joint fund, the Ministry of Foreign Affairs and the Ministry of Culture co-financed 122 cultural and artistic projects, as well as projects of the Slovenian Presidency of the Council of the EU (MZZ, 2022c).

impact on the publishing sector in the medium term. In addition, preparations were made for Nova Gorica and Gorizia to share the title of European Capital of Culture 2025, creating opportunities for cultural and tourism networking in the wider region and for the development of international economic cooperation. However, improvements are still needed in the exercise of the linguistic rights of the Slovenian minority in Austria and Italy (Janežič, 2021; Kavčič, 2021; MZZ, 2022b).

Despite an increase in real terms in 2021, expenditure on culture as a share of GDP remains at one of the lowest levels of the last decade; the number of people employed in culture increased in 2022 for the second consecutive year. After a one-year transitory decline, government expenditure on culture increased in real terms in 2021, most notably on cultural services but much less so on radio, television and publishing services. Despite the increase and strong economic growth, expenditure in 2021 remained at the same level as in the previous year (1.0% of GDP)[128] and among the lowest in the last decade (in 2020 in the EU: 0.7% of GDP). After growth in 2018 and 2019, private consumption on culture fell significantly in 2020 due to the restrictive measures related to the epidemic and, despite an increase, it was still much lower in 2021 than before the epidemic.[129] The contribution of cultural activity[130] to economic activity, expressed as a share of value added in gross domestic product (GDP), was 1.1% in the 2014–2019 period, falling to 1.0% of GDP in 2020 and 2021[131] (SURS, 2023f). In addition to its direct impact on economic growth, culture is also a driver in local development and supports the development of other parts of the economy (e.g. tourism) and the creative sector (see Section 1.2.2). Culture also creates jobs. The number of people employed in culture increased in 2022 for the second consecutive year and was the highest in the last ten years.[132] In the future, the development of culture and the strengthening of its impact on other activities will also be supported through European Cohesion Policy funds for 2021–2027 in the amount of over EUR 55 million (MK, 2022c; SVRK, 2022) and through funds from the Recovery and Resilience Plan in the amount of EUR 56.9 million, which represents the seventh largest share of the total plan expenditure among EU Member States (2.3%; it is highest in Slovakia, at 3.5%) (EC, 2022v) and the sixth largest share in terms of GDP.[133]

[128] Expenditure on culture comprises expenditure on cultural services and expenditure on radio, television and publishing. Expenditure on cultural services amounted to 0.7% of GDP in 2021, while expenditure on radio, television and publishing amounted to 0.3% of GDP (Eurostat, 2023).

[129] In 2021, a resident of Slovenia spent an average of EUR 204 on culture (2020: EUR 177) (SURS, 2023f).

[130] Cultural activities as defined by SURS include publishing, activities related to film, video, etc., radio and television activities, cultural and entertainment activities, and libraries, museums, archives, etc. SURS (2021b).

[131] In calculating the contribution of culture to GDP, pure cultural activities without indirect effects on other activities were taken into account (SURS, 2023f).

[132] In 2022, there were 30,400 persons in employment in the cultural sector, a good 10% more than ten years ago, due to an increase in the number of self-employed (SURS, 2023h). Data on the active working population are presented according to Eurostat's 2018 definition of culture (Eurostat, 2018).

[133] Calculated to GDP in 2021 (Eurostat, 2023).

3 An inclusive, healthy, safe and responsible society

The material and social well-being of the population has improved in recent years despite the epidemic. In 2021 and with the cost-of-living crisis in 2022, some indicators have worsened, but the values are still above the EU average. Over the years, increases in labour force participation and household gross disposable income have reduced income inequalities and the at-risk-of poverty or social exclusion rate and increased life satisfaction and trust in people. Against the backdrop of a rapid recovery in economic activity and a shortage of workforce on the labour market, employment in 2022 reached unprecedented levels, with a sharp rise in the employment of foreigners and an increase in the employment of the people with low employability. The high growth of the minimum wage in the 2018–2022 period has led to one of the highest minimum/average wage ratios in the EU, which is also reflected in the high concentration of employees slightly above the minimum wage. While Slovenia has performed better than the EU average on some aspects of job quality (support from colleagues, length and organisation of working time, etc.), there are still challenges in terms of working time flexibility, implementation of occupational health and safety measures, and reconciliation of work and family life. There has been a slight increase in the at-risk-of poverty rate and some inequalities, but most indicators have remained well above the EU average, and persistent at-risk-of poverty rate has decreased. The most vulnerable groups in society (pensioners, especially older women and low-educated adults, the unemployed, single-person households, people with various types of disabilities, tenants, immigrants, and various other vulnerable groups) have seen their living conditions deteriorate the most and their situation remains worse than the EU average. These groups have been facing low income and

various forms of disadvantage for many years and would therefore need targeted measures in the context of social policy reform with transparent and verifiable eligibility criteria, thus preserving the dignity of the most vulnerable in society. The long-term trend of improving the health of the population was also interrupted by the onset of the epidemic. Reduced access to health services as a result of the epidemic has hit patients with chronic non-communicable diseases the hardest and has exacerbated health inequalities. Waiting times have increased, and the share of out-of-pocket expenditure in household consumption has risen.
The prevalence of mental health problems in the population in Slovenia and other developed countries had already increased over the last decade, and even more so with the epidemic. Interim and mid-term measures to improve the resilience of the healthcare system and long-term care were also adopted and supported with increases in the expenditure from the state budget. In the long term, it will be essential to ensure sufficient staff and sustainable financing for both systems.

3.1 An inclusive labour market and quality jobs

An inclusive labour market and high-quality jobs (Development Goal 7):

The goal is to create an inclusive labour market that will provide high-quality jobs with high value added (see also Development Goal 6). The introduction of the concept of sustainable working life and the adjustment of jobs to demographic changes will help increase the labour force participation of older workers and improve their health. Improving the system of flexicurity and promoting the employment of both genders in gender-atypical professions will contribute to the increased inclusion of under-represented groups in the labour market.

Performance indicators for Development Goal 7:

	Latest data		Target value for 2030
	Slovenia	EU	
Employment rate (20–64 years), in %	76.1 (2021)	73.1 (2021)	> 75* (79.5**)
At-risk-of-poverty rate of persons in employment (aged 18 and over), in %	5.0 (2021)	8.9 (2021)	< 5

Notes: * The employment rate of 75% is the target of the SDS 2030, which Slovenia has already exceeded. ** The employment rate target of 79.5% is the target of the National Reform Programme 2022.

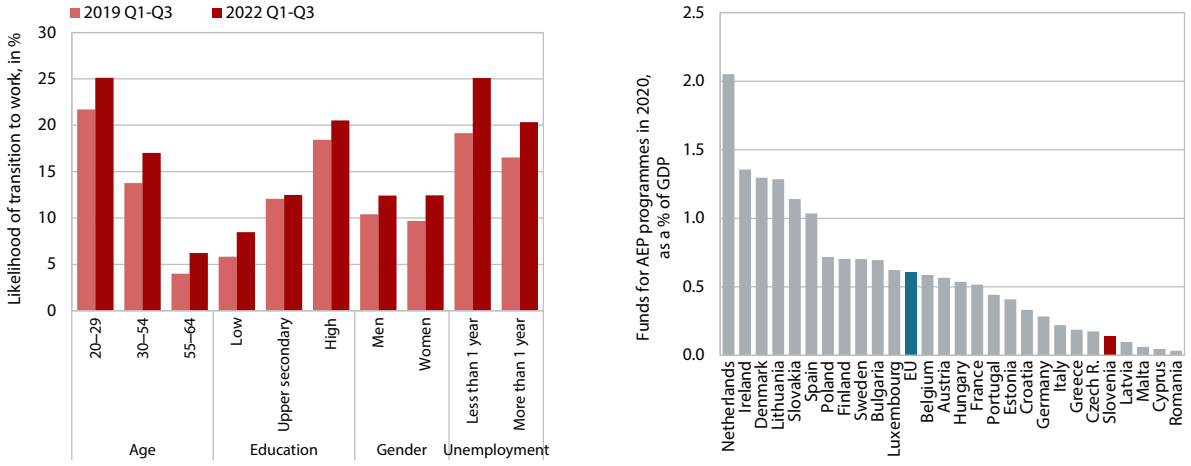
At the end of 2022, labour market participation and employment were at historical highs and unemployment at historical lows, reflecting the rapid recovery in economic activity after the epidemic. The epidemic put an end to several years of favourable labour market trends, but the adoption of intervention job-retention measures largely mitigated the impact of the economic downturn on the labour market. The strong recovery in economic activity after 2020 and the labour shortage, which was already high before the epidemic, led to a quick recovery in the labour market. Employment in the third quarter of 2021 thus already surpassed the level of the end of 2019. At the end of 2022, the number of persons in employment was at an all-time high, while the number of registered unemployed was at an all-time low. Employment growth was also strongly depended on the recruitment of foreign workers, which coincides with a decline in the number of unemployed people available for employment and increasing labour shortages.[134] Compared to the pre-epidemic period, the employment rate of young people (aged 20–29), whose employment opportunities have been most affected by the epidemic, is lagging behind. The employment rate increased to 76.1% by 2021 (latest annual data), i.e. above the SDS 2030 target (see also Indicator 3.1),[135] with the highest increase among older people (aged 55–64), where it also increased during the epidemic. This is largely related to the increase in employment in the 55–59 age group due to the increase in the retirement age and higher income incentives to work longer. Above all, it is because of the high labour demand and the recruitment from all segments of the population in the face of general labour shortages. Nevertheless, the employment rate of older people (aged 55–65) remains low compared to other EU Member States, reflecting the low employment activity of the 60–64 age group. In addition to creating the conditions for extending working lives (e.g. by adapting workplaces to older employees and by taking measures to maintain employees' health), the issue of prolonging working life should also be addressed through pension reform, which can help improve the fiscal sustainability of the pension system and the dignity of pensions.

Despite strong labour demand and low unemployment over the past three years, some population groups need incentives and additional measures to improve their job opportunities. Among the more difficult to employ are, in particular, people with low levels of education, young people (up to 29 years of age), first-time job seekers, people over 55 years of age, the long-term unemployed, people with health and other disabilities, and foreigners. It is often a combination of barriers (such as age and/or disability and/or poor health and/or dependency and/or social exclusion) that makes it more difficult for many to access quality and secure employment, and they are more likely to be underpaid and/or to become unemployed than other groups of employees.

[134] At the end of last year, foreign nationals accounted for almost 80% of the year-on-year growth in the total number of persons in employment.

[135] At the beginning of 2021, the activity and employment rates were also affected by the change in the methodology used in the Labour Force Survey, which provides internationally comparable data on the labour market situation. The change in the methodology is related in particular to a change in the definition of persons in employment in relation to temporary lay-offs. According to the change in the methodology at the beginning of 2021, persons whose duration of the layoff was longer than three months or is expected to be longer than three months are now excluded from the total number of employed persons. They are included either in the category of the unemployed (if they are actively seeking work) or in the group of inactive persons. The methodological change had an impact on the number of persons in employment mainly in the first half of 2021, due to the increased participation of employed persons in the measures, and thus mainly on the activity and employment rates.

Figure 41: Older and low-educated people are less likely to find employment (left); the level of spending for active labour policy was among the lowest in the EU in 2020 (right)



Sources: Eurostat (2023), SURS (2023h). Note: The probability of moving into employment refers to the percentage probability of moving from unemployment or inactivity into employment in a given quarter. The quarterly average of this probability over the given period is shown.

This reduces their income security, social inclusion and quality of life. The epidemic initially worsened the labour market situation above average for those who have difficulties in finding jobs, especially young people and those working in certain sectors.[136] However, as before the epidemic, labour shortages have contributed to companies choosing to employ people with less relevant skills, thereby improving their employment prospects (Figure 41, left). This is also reflected in the lowest ever level of long-term unemployment (see Indicator 3.3).[137] Empirical analyses show that active labour market policy (ALP) measures can also help to accelerate activation and transition to employment,[138] but over the years Slovenia has received low funding compared to most EU Member States (Figure 41, right). During the epidemic, the level of funding was further reduced. This is still the case in the plans for 2023.[139] More effective integration of vulnerable groups into the labour market will require adjustments of measures and funding for ALP measures, better integration with social assistance services, increased investment in education and training, and retraining.

The volume of overtime work has returned to high levels after falling during the epidemic, also due to labour shortages. According to the Employment Forecast Survey, in the second half of 2022, more than half of all companies in Slovenia reported labour shortages (see Section 1.1 for the reasons), and among larger companies, this percentage reached almost 80% of all companies (ESS, 2022a). The share of employees who had to work overtime returned to high levels after the epidemic, also due to labour shortages (Figure 42, left), and almost 70% of employees who worked overtime assessed that they would not be fully paid for it.[140] Long-term work overload also has an impact on employees' preferences regarding working hours; the proportion of employees who would like to work more hours than they normally do has been steadily declining, with a marked increase in the proportion of those who would like to work fewer hours than usual, particularly in the post-COVID 19 period. In our view, the latter could be related to: (i) the heavy workload imposed on certain occupations during the epidemic, (ii) a change in and the value of leisure and (iii) a desire for more flexible working time arrangements. In the face of severe labour shortages, the employment of foreign nationals is increasing, and their share has risen sharply in some sectors in recent years (Figure 42, right).[141] The vast majority of foreign workers come from other

[136] The worsening of the labour market situation of people with low educational attainment was due to the pronounced sectoral and occupational dimension of the coronavirus crisis, as the sectors most affected by closures and reduced activity were accommodation and food service activities, tourism and, at least initially, retail trade, and sectors in which employees are predominantly female and salaries are below average. Due to the high exposure to temporary forms of work (especially student work), young people were severely affected at the beginning of the epidemic, as some businesses decided to downsize the number of employees by not extending or terminating temporary employment contracts and by significantly reducing the volume of student work, despite the rapid adoption of emergency measures to retain jobs.

[137] The long-term unemployed are people who have been unemployed for more than 12 months. The long-term unemployment rate (the share of long-term unemployment in the active population, i.e. the employed and unemployed together) stood at 1.8% in the first three quarters of 2022, which is 0.2 p.p. lower than in the same period of 2019.

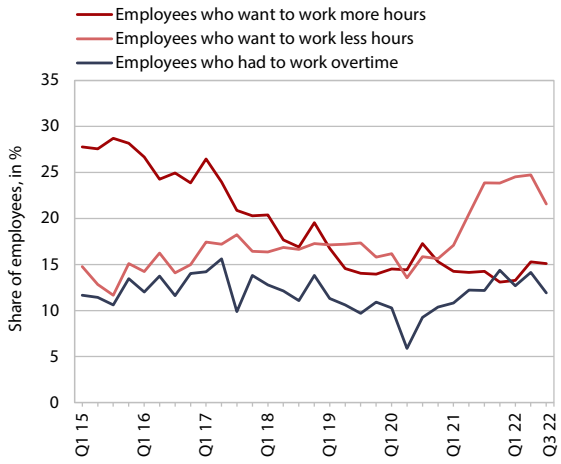
[138] For an analysis of whether participation in ALP measures improves the employment prospects of the unemployed in Slovenia, see Laporšek et al. (2017).

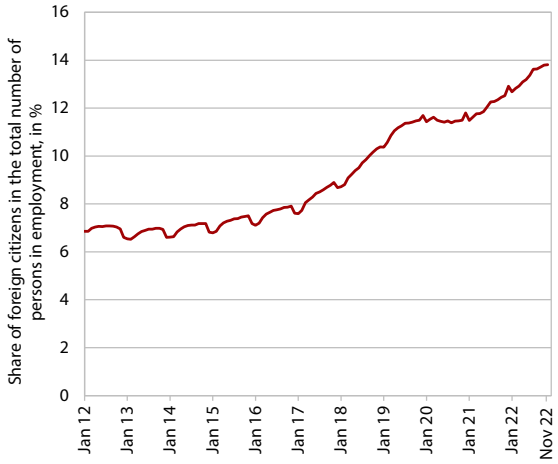
[139] A total of EUR 90.8 million was earmarked for ALP measures and of this amount, EUR 71.2 million was spent in 2021. For 2022, EUR 67.8 million was earmarked in the ALP measures implementation plan; the figure for 2023 is EUR 47.7 million. In 2024, the amount of earmarked funds will increase to EUR 67.8 million due to an increase in the funds received from the European Social Fund within the financial perspective 2021–2027 (MDDSZ, 2022a, 2022b).

[140] This share is usually highest in labour-intensive industries such as construction, transport and accommodation and food service activities.

[141] From December 2019 to December 2022, their number increased by around 24,000 and their share in the total active labour force by around 3 p.p. to almost 14%.

Figure 42: Over the period 2020–2022, there was a sharp increase in the share of employees who wanted to work less hours (left); with labour shortages, employment and thus the share of foreign nationals in employment is increasing (right)





Source: SURS (2023g); calculations by IMAD.

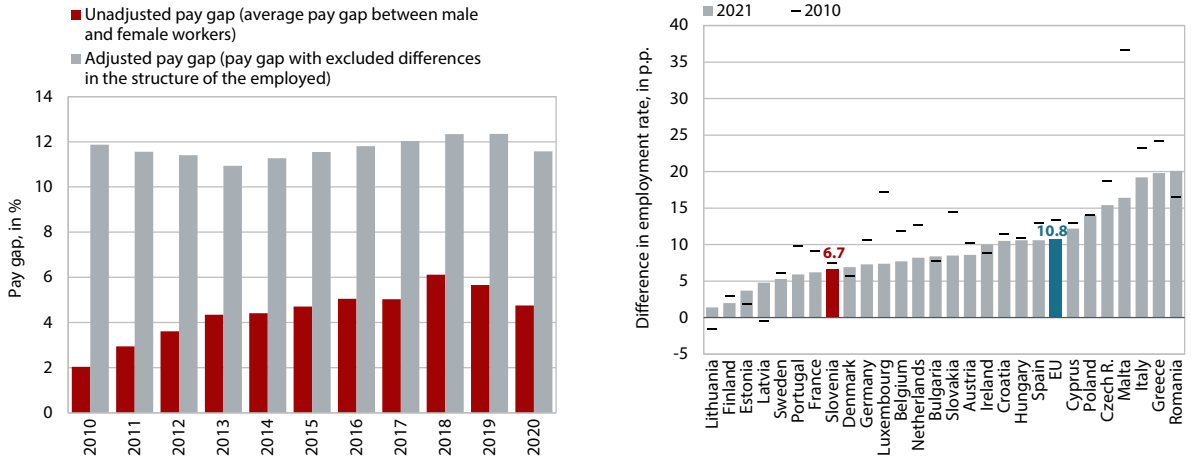
countries of the former Yugoslavia and other countries of the Balkan Peninsula, which for the time being remain a possible potential source of labour, but their availability there is gradually declining as well. At the same time, in attracting foreigners, Slovenia is also competing with other countries where working conditions and wages may be better. An appropriate migration strategy is therefore needed to address current and future challenges.

In Slovenia, gender gap in employment rates is relatively small. The gender gap in employment rates was consistently among the smallest in the EU over the period 2010–2021. In 2021, it amounted to 6.7 p.p., while the average in the EU was 10.8 p.p. The small gap in Slovenia is driven by the high employment rate among women, which is the highest in the EU for the 30–54 age group (86.9%). In addition to high levels of formal education, policies and measures that enable women to reconcile work and family life, such as access to early childhood education and care, maternity leave and legal possibilities to work part-time in the event of parenthood, contribute significantly to women's high employment rate in Slovenia (see Section 3.2). Although these are rooted in women's historical struggles for equal participation in society, politics and the labour market, women's high labour force participation in Slovenia is influenced not only by history and tradition, but also by household economic needs. Despite all the advantages, women are still more exposed to temporary employment and find it more difficult than men to find permanent and full-time employment. This is also the reason why they are more likely than men to work part-time and why they are also more likely to provide care for children and extended family members.

The gender pay gap has been lower than the EU average over the last decade and has not changed significantly. In Slovenia and in other countries, men's average wages are higher than women's. The *adjusted* gender pay gap[142] was consistently around 12% over the period 2010–2020 (Figure 43, left). The model decomposition of the gender pay gap shows that differences in the average wage between men and women in Slovenia are largely explained by differences in demographic and employment structure. These are differences in attained educational level and occupational and sectoral structure, which narrow the gap, as women have on average completed a higher level of education than men, which leads to higher wages, and are employed in occupations where the average wage is relatively high. On the other hand, the industry structure, i.e. the structure of activities, increases the gender pay gap, as men are employed in sectors where relatively higher wages prevail. However, a relatively large part of the gender pay gap remains unexplained (see IMAD, 2021), which implies that other factors that cannot be precisely identified in a statistical analysis also influence wage inequality between men and women; these may include various social and cultural factors, temporary exits of women from the labour market due to childbirth and family creation, other patterns of labour market functioning, and discrimination (see Indicators 3.8 and 3.17).

[142] The internationally comparable data for identifying the pay gap are taken from the Structure of Earnings Survey (SES), which is conducted every four years. There are two kinds of gender pay gap – the *unadjusted* and the *adjusted gap*. The unadjusted pay gap is the difference between average earnings of men and women, while the adjusted pay gap is the difference between average earnings of men and women from which the differences in demographic and employment structure between the two genders are excluded using regression analysis. The adjusted gender pay gap is thus the gap showing what the difference in the pay between genders would be if the demographic and education structure were the same in both genders. The gender pay gap adjusted in this way gives a clearer insight into pay differences between genders, as the differences in the demographic and employment structure between the two genders which are present in the unadjusted pay gap can distort the picture of the pay gap. At the same time, this approach also gives an insight into how particular factors in the demographic and employment structure contribute to the gender pay gap.

Figure 43: The adjusted pay gap between men and women, which takes into account differences in demographic and employment structure, has been similar over the last decade (left), while the gender gap in employment rates has been narrowing and is among the lowest in the EU (right)



Sources: SURS (2023d, 2023e); calculations by IMAD; Eurostat (2023). Note: The unadjusted pay gap is the difference in the average pay between men and women, expressed as a share of men's pay. When the gap is positive (negative), the average pay among women is lower (higher) than among men. The values for the unadjusted gap (gender differences in average wage) differ slightly from those published by SURS, since in our case we logarithmically transform wages and only then average them. The adjusted pay gap is the gap excluding differences in the structure of the employees and is a regression estimate. The regression estimate was made by merging micro-data from the Statistical Register of Employment (SRDAP) and income tax assessment/control data. The explanatory factors in the regression analysis were working time (permanent/not permanent, full-time/part-time), marital status, disabled status, nationality, age, four enterprise size classes, educational level (21 levels), occupational level (according to the Standard Classification of Occupations (SKP) at level 4), activity (according to the Standard Classification of Activities (SKD) at level 5), and sector (according to the Standard Classification of Institutional Sectors (SKIS) at level 5). For each year, the estimate included around 550,000 employees who were with the same employer and in the same occupation for the whole year and who received at least 90% of the annual minimum wage.

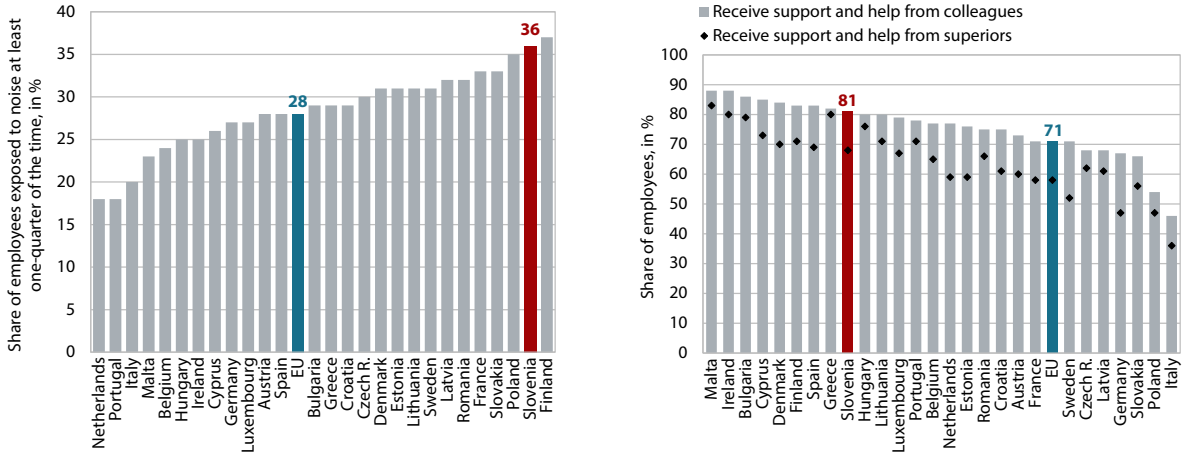
The survey on working conditions shows a high level of physical demands but a supportive social environment in companies. The most recent European Working Conditions Survey[143] shows similar results to those of the past decade (Eurobarometer, 2018a; Eurofound, 2016a, 2016c; ISSP Research Group, 2017). Physical strain and demands at work in Slovenia tend to be higher than the EU average, which is probably contributed to by the much higher share of employees in manufacturing (processing) activities than the EU average. Physical strain remains an important characteristic of workplaces in EU Member States, particularly in jobs involving the carrying of heavy loads (EU: 32%; Slovenia: 30%) and noise exposure, where Slovenia had one of the highest shares in the EU in 2021 (see Figure 44, left). Employees in Slovenia also very frequently work at a higher-than-average pace and often in their free time, which may reflect poorer working conditions. In terms of the working environment (social support and employee relations), working conditions in Slovenia are relatively good, with significantly fewer employees exposed to different forms of intimidation than the EU average.[144] The good social environment in companies is reflected in the above-average proportion of employees who are supported and helped by their superiors and the proportion of employees who are helped and supported by their colleagues (Figure 44, right). Employees in Slovenia also continue to rate their opportunities for promotion above average.

Employees are well informed about health and safety risks at work but more frequently than in other countries feel that work has a negative impact on their health. The vast majority of employees are informed about health and safety risks at work (93%; EU: 90%) (Eurofound, 2023), but they are less likely than in other Member States to be involved in the development of occupational health and safety measures (EU-OSHA, 2022). In 2022, 38% of employees believed that work had a negative impact on their health (EU: 25%), which could be due to more frequent physical and psychological strain on employees than the EU average and to companies being less responsive than the EU average to various risk factors and to taking preventive action in line with health and safety at work (EU-OSHA, 2022). As regards physical strain, in addition to the aforementioned exposure to noise and work at high pace, we also have higher-than-average proportions of employees performing work with repetitive movements, in tiring or painful postures, and exposed to low temperatures (EU-OSHA, 2022). A number of psychological strains are also above the EU average, notably emotional discomfort at work (experienced all the time by 10% of employees;

[143] The European Foundation for the Improvement of Living and Working Conditions (Eurofound) focuses on eight areas: (i) physical environment, (ii) work intensity, (iii) organisational characteristics of work, covering the opportunities for employees to participate in decisions about how they work, (iv) working time arrangements, covering flexibility of working time and working at less acceptable times (nights, weekends and holidays), (v) job prospects, covering career advancement, job insecurity, and training and education opportunities, (vi) intrinsic job features, covering opportunities for development and self-expression and rewarding such progress, (vii) social environment, and (viii) outlook on working life (Eurofound, 2022b).

[144] Intimidation includes verbal abuse, unwanted sexual attention, and bullying, harassment or violence (Eurofound, 2022b).

Figure 44: Employees in Slovenia are exposed to noise more often than in other countries (left) but enjoy above-average support and help from their colleagues and superiors* (right)



Source: Eurofound (2023). Note: * This is the proportion of employees who answered that they are always or most of the time supported and helped by their colleagues or superiors.

EU: 5%) (Eurofound, 2023) and experiencing stress and daily worry (Gallup, 2022; ISSP Research Group, 2017). Employees are also significantly more likely than the EU average to worry about work even when they are not working (18%; EU: 14%) (Eurofound, 2023). All of these may be reasons for more frequent sickness absence (see Indicator 3.6).

The duration and organisation of working time, which are important for job quality, are relatively good in Slovenia; however, the flexibility of working time, which affects employees' well-being and their opportunities to reconcile work and family life, could be improved. In Slovenia, as in other EU Member States, working hours are in most cases set by the company, with no possibility of changes (60%; EU: 56%). The relatively good organisation of working time in Slovenia is supported by the data that employees are less likely than in other countries to be required to come to work at very short notice[145] and are more likely than the EU average to be given enough rest time between shifts. However, employees in Slovenia are more likely than the EU average to work on shifts, nights and weekends, which is probably due to the higher-than-average share of employees in manufacturing. On the other hand, working time flexibility is lower in Slovenia than in other countries, which can make it more difficult to reconcile work and family life.[146] Another important indicator of working time flexibility is the possibility for employees to take one or two hours off during working hours to deal with personal or family matters (60%; EU: 65%) (Eurofound, 2022b).

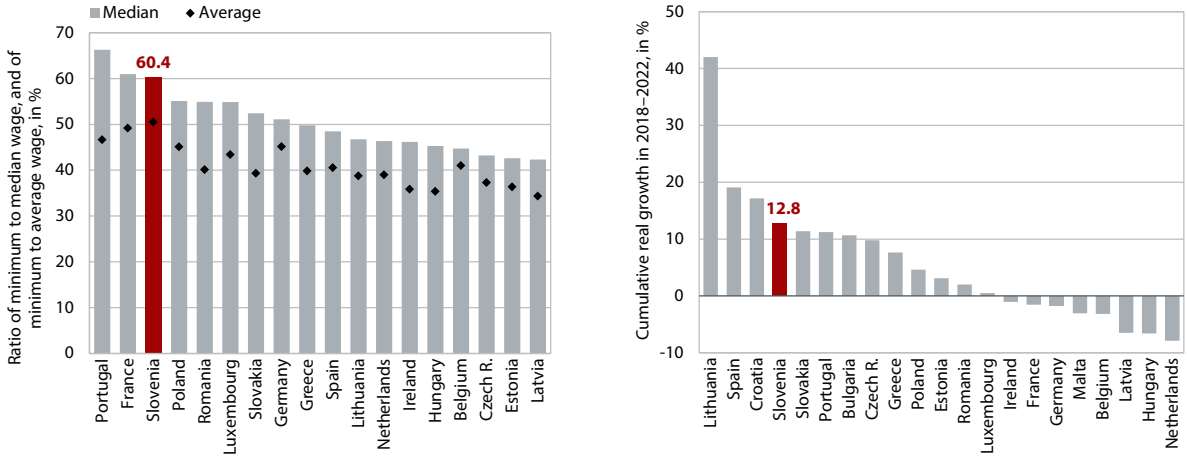
Better living and working conditions, including adequate wages, contribute to the quality of life. With rising minimum wages, labour shortages and a number of agreements with public sector unions, wage growth was getting stronger over the period 2015–2021 (see also Section 1.2). In October 2022, a directive was adopted that sets minimum requirements and procedural obligations at European Union level for the adequacy of statutory minimum wages and improves workers' effective access to minimum wage protection in the form of a statutory minimum wage. In discussions on the appropriate level of the minimum wage, two criteria emerged, among others: 60% of the median wage or 50% of the average wage. According to the latest available data on wage distribution for 2021, most countries do not meet these criteria for minimum wage adequacy. In 2021, the minimum wage reached 60% of the median wage in only three countries (Figure 45, left), and exceeded 50% of the average wage only in Slovenia. Over the period 2018–2022, the minimum wage increased the most in real terms in Lithuania, with Slovenia also experiencing one of the highest increases (Figure 45, right). At the beginning of 2023, the minimum wage in Slovenia increased by 12% to EUR 1,203.36 gross, one of the highest increases ever. This is because the minimum wage was brought in line with inflation and increases in the minimum living costs.[147] From the point of view of decent pay, it is certainly appropriate to provide by law that the minimum wage should be at least 20% above the minimum cost of living. However, given the current structure of employment and the economy, exceptionally high increases in the minimum wage lead to high compression among low wage earners, which can reduce the motivation to work. It can also cause spill over into other wage increases (to maintain wage ratios) and worsen competitiveness if wage increases are not accompanied by sufficient productivity gains. From a decent pay for work perspective, it would make sense to carry out calculations of minimum cost of living

[145] 65% of respondents answered that their employer never asks them to come to work at very short notice (EU: 61%) (Eurofound, 2023).

[146] A significantly smaller proportion of employees in Slovenia than the EU average can adjust their working hours within certain limits.

[147] Amendments to the Minimum Wage Act, which were adopted in 2018, stipulated that the minimum wage must exceed the calculated minimum cost of living by at least 20% and not more than 40%.

Figure 45: The ratio of the minimum wage to the median wage in Slovenia in 2021 was among the highest (left), as was the total real increase in the minimum wage in the period 2018–2022 (right)



Sources: OECD (2023b), Eurostat (2023); calculations by IMAD.

more frequently than hitherto,[148] which might also help to avoid occasional very high minimum wage increases.

Wage distribution in Slovenia is characterised by a concentration at its low end, with the share of minimum wage earners gradually declining over the period 2010–2021. Gross wage distribution by level shows that a large number of employees in Slovenia are concentrated at the low wages end, mainly around the minimum wage (Figure 46). This asymmetric distribution resulted in around 65% of employees receiving below-average wages in 2021. At the same time, it is estimated that around 11% of all employed persons, or around 85,000 persons, received a wage within a ±10% range of the minimum wage.[149] We estimate that the share of these earners has declined slightly over the years, reflecting a gradual increase in the lowest wages and in the share of employees paid around the minimum wage.

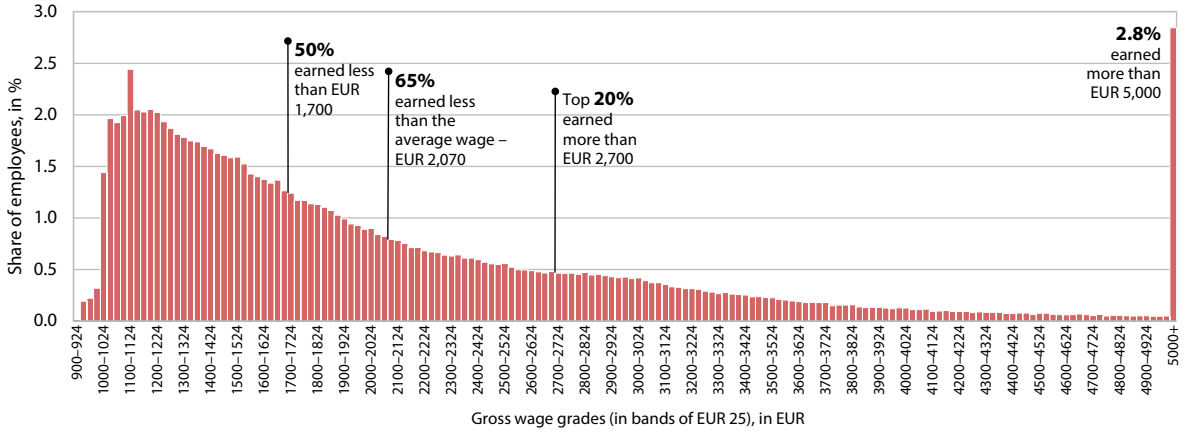
Increased teleworking and digitalisation, in addition to an ageing population, bring new challenges for health and safety at work, although they can also make an important contribution to a more environmentally sustainable development. Demographic change requires longer working lives, which also means longer exposure to workplace risks. The growing number of older workers requires workplace adaptations and, as pointed out by the OECD (2021), faster participation of employers in vocational rehabilitation in the event of occupational injuries and illness. High exposure to physical risks also calls for better prevention to ensure healthy ageing and sustainable working lives for all employees. Teleworking during the epidemic affected working time and the distribution and length thereof. Eurofound (2022b) finds that employees were more likely to work more hours at home than at the workplace and outside their normal working hours. On the one hand, teleworking increases working time flexibility and autonomy at work, saves commuting time for employees and thus has a lower impact on the environment (e.g. reduced traffic emissions), and can facilitate work-life balance. However, like digitalisation, it can also increase stress and isolation in the workplace, which can have a negative impact on employees' mental health (see also Section 3.2).[150] In July 2022, the European Parliament adopted a Resolution on mental health in the digital world of work, which for the first time calls for legislation to prevent the psychosocial risks associated with the digitalisation of work, to regulate teleworking and the right to disconnect, and to recognise mental health disorders as occupational illnesses (European Parliament, 2022).

[148] According to the law, the basic amount of the minimum income (BAMI) is determined every six years based on data older than six years (see also Section 3.3).

[149] When estimating the number of minimum wage earners, it should be borne in mind that few employees receive the exact amount of the minimum wage at any one time, so it is more appropriate to use a range around the minimum wage. As the range increases, the high concentration of wages also leads to a sharp increase in the number of employees on such wages. The estimated share of minimum wage earners is based on a merger of micro-data from the Statistical Register of Employment (SRDAP) and income tax returns. The data are for the period 2010–2021, with the 2021 income tax data being provisional. In our case, an employed person is someone who has been employed for a full year by a legal or natural person, by the same employer, has not changed occupation, has had a full-time permanent or fixed-term job, has not been on maternity leave or long-term sick leave, and has received at least 90% of the minimum wage. The sample for each year averaged around 570,000 persons. The estimated number and share of employees around the minimum wage in the sample was then applied to all employees employed by legal and natural persons, which, according to SURS data, amounted to around 804,000 in 2021. The estimated share of minimum wage earners may differ from estimates from other sources, such as the Structure of Earnings Survey (SES), which is internationally comparable, or the Living Conditions Survey (EU-SILC). Differences may be due to different coverage of the observation units. Estimates of minimum wage earners have also been made from the two additional sources and are similar to those from the first source.

[150] Data show that more than half of lost working days in the EU are due to work-related stress (Ferrandis and Ruiz, 2022).

Figure 46: The distribution of gross wages is highly concentrated at the low wages end (2021)



Source: SURS (2023d, 2023e); calculations by IMAD. Note: The data in the figure are estimates based on the sample used and differ minimally from the data published by SURS in the framework of the structural statistics on wages (according to provisional data) for 2021. The minimum wage in 2021 was EUR 1,024.24, so the concentration of employees' wages is highest around this amount.

3.2 A healthy and active life

A healthy and active life (Development Goal 1)

The content of the goal is to ensure quality of life for all generations by promoting healthy and active life. Achieving the goal will require raising awareness of the importance of a healthy lifestyle and mental health, preventing risky behaviour, strengthening prevention, reducing health risks from environmental pollution and climate change, and promoting sustainable consumption, intergenerational cohesion and gender equality. In the face of demographic change, maintaining sustainable social protection systems that provide adequate pensions and high access to health and long-term care and contribute to reducing health inequalities will represent an even greater challenge. Creating the conditions for all generations to live in dignity is also important for achieving the goal, as addressed in Development Goal 3.

Performance indicators for Development Goal 1:

	Latest figure		Target value for 2030
	Slovenia	EU average	
Healthy life expectancy at birth, number of years	Male: 63.9 years; 82.1% of life expectancy at birth (2020)	Male: 63.5 years, 81.9% of life expectancy at birth (2020)	Male: 64.5 years (80% of life expectancy at birth)
	Female: 66.3 years; 79.6% of life expectancy at birth (2020)	Female: 64.5 years, 77.6% of life expectancy at birth (2020)	Female: 64.5 years (75% of life expectancy at birth)
Gender Equality Index, index	67.5 (0–100) (2022)	68.6 (0–100) (2022)	> 78

The long-term trend of improving population health was interrupted by the 2020 epidemic. Key population health indicators such as life expectancy, healthy life years, self-perceived health, avoidable mortality and others had been improving for many years leading up to the outbreak of the epidemic, driven by advances in medicine and quality in healthcare, and a range of other factors such as rising incomes, rising educational levels and better informing of the population. According to the latest data, in 2020, the average person in Slovenia could expect to live 65.1 years in good health, which is above the EU average (64 years) and also above the SDS 2030 target[151] (Indicator 3.7). Life expectancy at birth, which increased by 1.8 years between 2010 and 2019, decreased by one year in the first year of the epidemic but recovered by four months in 2021 alone (see Indicator 3.9). The number of COVID-19-related deaths per million population exceeded the EU average in each year of the epidemic (by almost 60% in total), and by the end of 2022, 4,216 deaths per million population had occurred,[152] which was exceeded only in Bulgaria and Hungary (compared to an EU average of 2,684). As a result, excess mortality in 2020–2022 was among the highest in the EU (Indicator 3.7). Self-perceived health improved in 2021, with 69% of the population reporting that their health was good or very good (EU: 69%), which is significantly higher than in 2020 (67%).

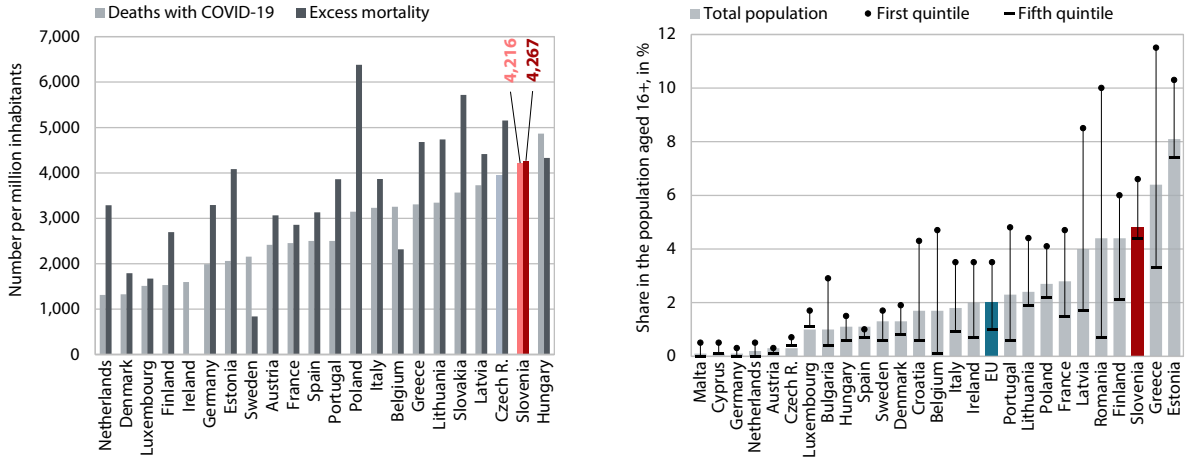
The poorer access to health services due to the epidemic hit chronic patients the hardest. Unhealthy lifestyles and risky behaviour are the major causes of chronic diseases such as cancer, circulatory diseases, diabetes and alcohol-related diseases (OECD/EOHSP, 2021a). In 2019, 290 people per 100,000 population died of cancer in Slovenia (EU: 247), a higher figure being recorded in only four other EU Member States, and cancer was the second most common cause of death. Cardiovascular mortality and the prevalence of diabetes are also higher than the EU average, which is linked to the high proportion of overweight and obese adults (see Indicator 3.8), excessive drinking, and poor eating habits.[153] Patients with chronic non-communicable diseases were the most affected by the impeded access to health services during the epidemic, as they could be at risk of complications if not treated in time and were also more likely to die from COVID-19 (OECD and EU, 2022; WHO, 2020b). In the first wave of the epidemic in 2020, almost 40% of patients suffering from chronic diseases and aged 50 years or older in Slovenia reported that they did not receive healthcare when they needed it, compared to 27% of those without chronic diseases (37% and 26% in the EU, respectively) (Börsch-Supan, 2022; Börsch-Supan et al., 2013). Similarly to other EU Member States, the epidemic in Slovenia led to a decrease in the

[151] The analysis by SURS (2019) showed that the very low values of the healthy life years indicator and the self-perceived health indicator (according to the EU-SILC survey) in Slovenia in the past years were mainly related to inadequate translation and the method of surveying, which was then partially corrected in 2019 and fully in 2020. The SDS target, which was set in 2017 on the basis of lower indicator values, was already exceeded in 2020, mainly for this reason.

[152] In 2020, 2,882 people died with COVID-19 in Slovenia, in 2021, a further 3,272, and in 2022, 2,712 persons, with almost equal numbers of women and men. By the end of 2022, a total of 8,866 had people died.

[153] Only 5% of adults eat fruit or vegetables at least five times a day (WHO recommendation: 5 a day), which is less than in most EU Member States, and 31% do not eat any fruit or vegetables at all.

Figure 47: The number of deaths with COVID-19 in Slovenia from March 2020 to the end of 2022 (cumulatively) was among the highest in the EU, almost entirely reflected in excess mortality* (left); unmet needs for medical treatment in 2021 were among the highest in the EU (right)



Sources: OECD (2023a), Eurostat (2023). Notes: Figure on the left: * Excess mortality is shown in the figure as the difference in the number of deaths from all causes of death per million population in 2020, 2021 and 2022 compared to the average for the period 2015–2019 (conversion of the number of deaths is from the OECD weekly data to the average of the population on 1 January in 2020, 2021 and 2022 according to Eurostat). EU Member States which are also OECD members are shown; there are no data on excess deaths for Ireland. Countries are ranked according to the number of deaths with COVID-19 per million population. Reported deaths with COVID-19 depend on countries' ability to capture and monitor infections and are shown alongside excess deaths in the figure. In some countries, there are significant differences in excess deaths and deaths with COVID-19, which may also be due to fewer excess deaths due to the lockdowns in a particular country (e.g. fewer car accidents, work accidents) or more excess deaths due to lack of access to health care, and may also be due in part to the changing population structure. Figure on the right: Unmet needs for medical treatment refer to the EU SILC survey question "Was there any time during the last 12 months when you personally, really needed a medical examination or treatment for a health problem but you did not receive it because the care was too expensive, waiting times were too long or the distance to travel was too far?"

number of cancer diagnoses in the last three years,[154] and the consequences are expected to be felt in the coming years (Institute of Oncology, 2022), which is also addressed in the European Cancer Action Plan (ECAP). Long-term COVID-19, which most often causes fatigue, memory and concentration problems, pain in various parts of the body, insomnia and diarrhoea or nausea, is also a health concern for the population.[155] Moreover, the SI-PANDA survey showed that just over half of those surveyed had recovered from COVID-19 by November 2022: around 60% still experienced some problems even after three months and 20% even after six months. The problems affected their leisure activities, relationships, work, and care of home and family (NIJZ, 2023c).[156]

According to several indicators, health inequalities decreased between 2007 and 2019 but have since then increased again as a result of the COVID-19 epidemic. Between 2007 and 2019, the health gap in relation to education narrowed in some indicators (e.g. life expectancy at age 20, premature mortality, men's self-perceived health, smoking prevalence, suicide mortality) and widened in others (e.g. lung cancer mortality and depressive disorders) or remained unchanged (NIJZ, 2021). The epidemic most affected the people in socially deprived settings, those with lower income and lower education, and various other vulnerable groups who lived in poorer living conditions, had poorer basic health, were less responsive to testing and vaccination, and faced various barriers to accessing healthcare (OECD, 2021e). Remote consultations and other digital health tools are less widely used by the elderly, the less educated and the socially vulnerable, and the gap in access to health services between different population groups has widened as a result of the epidemic (Indicator 3.10) (OECD, 2023a). Since October 2019, a project has been implemented to raise health literacy and facilitate patients' navigation through the health system, which will be the basis for the development of a national health literacy strategy (MZ, 2022b). Indeed, the first Slovenian health literacy survey showed that 48% of adults have limited general health literacy (Berzelak et al., 2021) (see Section 2.1).

The prevalence of mental health problems had already increased in Slovenia and other developed countries in the last decade, even more so with the COVID-19 epidemic. According to the European Health Interview Survey (EHIS), 5.5% of the population in Slovenia reported symptoms of depressive disorders in 2014, rising to 7.5% in 2019[157] and, according to a national survey, already to 13.4% of the population in 2021.[158] Even

[154] The number of new cancer diagnoses was 6% lower year-on-year in 2020, 3% lower in 2021 and 8% lower in the first half of 2022.

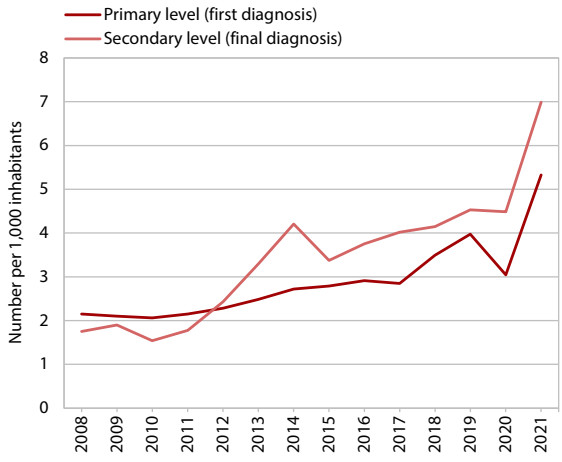
[155] According to the WHO data, 10–20% of persons infected with the SARS-CoV-2 virus are expected to experience some health problems for at least two months after infection, and 10% of these persons even after 12 weeks (Rajan et al., 2021).

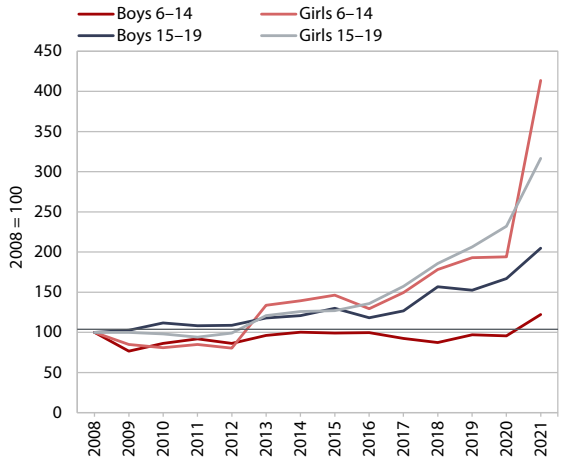
[156] In June 2022, the EC launched "Healthier Together", an initiative aimed at improving the medical treatment of several chronic non-communicable diseases such as cardiovascular diseases, diabetes, respiratory diseases, neurological disorders and mental health.

[157] On average, 6.5% of the EU population had symptoms of depression in 2014 and 7.0% in 2019.

[158] The data for 2021 were obtained from the National Survey on Attitudes to Mental Health, which uses a slightly different methodology than the international EHIS (Vinko et al., 2022).

Figure 48: Treatment of children and adolescents (6–19 years) for anxiety or depression (left) and the number of issued prescriptions for antidepressants and anxiolytics (right) have increased markedly over the last decade and especially in 2021





Source: NIJZ (2023b).

before the epidemic, anxiety disorders, panic attacks, obsessive-compulsive disorders, eating disorders and behavioural problems were already increasing among young people, affecting personal development, social relationships, and performance at school or in studies; mental distress can also have important consequences in adulthood (poorer employment prospects, difficulties in interpersonal relationships, mental health problems) (Jeriček Klanšček et al., 2018). International research over the last decade has also warned that the prevalence of mental health problems among young people is increasing due to rising competition, social inequalities, social isolation, digital addiction (video games, social networks, internet) or other non-chemical addictions (eating, sexuality, etc.; NIJZ, 2023a). However, several international studies have shown that the mental health of children and adolescents deteriorated markedly during the epidemic (OECD, 2023a). In some EU Member States, the proportion of young people with anxiety symptoms is reported to have doubled during the epidemic (Belgium, Finland, France).[159] In Slovenia, almost 50% more adolescents were treated for suicide attempts and 50% more children and adolescents with an eating disorder at the UKC Ljubljana Paediatric Clinic alone in 2020 than in the previous year (Government of the RS, 2022a). In 2021, the number of emergency admissions and hospital admissions increased further. Outpatient treatments for anxiety and depressive disorders in children and adolescents were 50% higher in 2021 compared to 2019 (combined primary and secondary levels), and the number of prescriptions for antidepressants and anxiolytics was 53% higher, which was particularly pronounced in girls (Figure 48). However, the proportion of young people receiving medical treatment remains very low,[160] as the data only capture those who seek help for their problems, which is why survey data are also important to gain insight into self-assessed feelings of depression and anxiety. These show that in 2019, 10.5% of young people aged 15–24 in Slovenia reported symptoms of depression in the last 12 months, which is significantly higher than the proportion of young people who received medical treatment. The difference shows that the health system does not cover the majority of young people suffering from feelings of depression and anxiety, usually because they do not seek help or because it is difficult to access.

In recent years, Slovenia has taken several important steps to improve the mental health of its population, and this will intensify in 2023, but the shortage of psychologists, psychotherapists and psychiatrists remains an acute problem. In addition to the higher prevalence, the large increase in the number of young people with mental health problems receiving treatment in the 2019–2021 period may be partly due to a reduced stigma and a greater awareness of mental health problems in society. Increased accessibility may also have contributed to this, as a result of the Resolution on the National Mental Health Programme 2018–2028 – MIRA Programme (hereinafter: the MIRA Programme) (NIJZ, 2019), which established a network of 19 Child and Adolescent Mental Health Centres in 2020–2021, introducing additional and new services covered by compulsory health insurance. From 2020, a network of 14 Adult Mental Health Centres has been gradually established. Moreover, additional capacities have been set up in hospital settings, both in paedopsychiatry and adult wards, and during the epidemic, a network

[159] In Belgium, the proportion of young people (18–29 years) with an anxiety disorder increased from 12% in 2018 to 28% in 2022 (Sciensano, 2022). Also in Finland, the proportion of students (14–20 years) with moderate or severe anxiety symptoms increased sharply, from 12.6% in 2019 to 19.2% in 2021 (Finnish Institute for Health and Welfare, 2022; Finnish Institute for Occupational Health, 2022); in France, from March 2020 to September 2022, on average one-third of young people (18–24 years) reported symptoms of anxiety (OECD and EU, 2022).

[160] In the 6–19 age group, the percentage increased from 0.9% in 2019 to 1.2% in 2021; the percentage of young people on antidepressants in the 15–19 age group increased from 6.6% in 2019 to 9.7% in 2021 (NIJZ, 2023d).

of psychological support in healthcare centres and various other institutions, accessible by telephone to the entire population, was set up. The Action Plan for the Implementation of the MIRA Programme for 2022 and 2023 is being carried out and is upgrading the measures to shift the focus of mental health services to the primary healthcare level (Government of the RS, 2022a). However, there is still a severe shortage of psychiatrists and clinical psychologists in Slovenia to help people with major problems, which is the biggest challenge for the implementation of the MIRA Programme (NIJZ, 2020).[161] Slovenia has 15 psychiatrists per 100,000 inhabitants, which is almost half the number in Germany (27.5) and less than the EU average (17.5). In 2015, Slovenia had 15 psychologists per 100,000 inhabitants working in the public sector; in Western European EU Member States the number is between 100 and 150, while in Eastern European countries it is mostly below 50 (Eurostat, 2023). 2023 has been declared the Year of Mental Health in Slovenia, which represents a further commitment by the Government to the implementation of the mental health goals set out in the adopted documents (the Resolution, the MIRA programme and the Action Plan) (MZ, 2023b).

Air-pollution-related premature mortality[162] in Slovenia has decreased by a quarter in ten years. Pollution-related health risk factors are improving, but air pollution, which is the major health risk in developed countries (respiratory diseases, lung cancer, cardiovascular diseases), in Slovenia exceeds the limit of what is still acceptable according to the WHO guidelines (see Indicator 4.13 and Section 4.2) (OECD, 2017b). In 2019, an average of 39.7 deaths per 100,000 inhabitants in Slovenia (EU: 38.3) were attributable to $PM_{2.5}$ air pollution (Health Effects Institute, 2022; OECD, 2023b). According to estimates by the European Environment Agency (2021), premature mortality due to environmental air pollution decreased by 24% in the period 2009–2019, i.e. from 91 to 67 deaths per 100,000 inhabitants, which is about the same as the EU average (23% or 69 deaths) (González Ortiz et al., 2021).

Avoidable mortality rates[163] declined over the period 2011–2019 but rose sharply in 2020 due to the epidemic, though still less than the EU average. In 2020, there were 23 more avoidable deaths per 100,000 inhabitants in Slovenia than in 2019 and 28 more than the EU average. The deterioration in 2020 in all EU Member States was due to deaths from COVID-19 that could have been avoided with timely policy interventions and also to indirect consequences caused by disruptions in the functioning of healthcare. In Slovenia, mortality from causes that could have been prevented through primary prevention and public health measures remains higher than the EU average, mainly due to the prevalence of unhealthy lifestyles. However, fewer deaths from causes that could be prevented through treatment or prevention programmes occur in Slovenia than in the EU average, reflecting relatively effective healthcare in terms of medical treatment, especially in the light of lower health expenditure (relative to GDP) than in countries with comparable results (see Indicator 3.11).

Affordability of healthcare and financial protection of the population remain better in Slovenia than in most EU Member States, but the share of out-of-pocket expenditure on health in total household expenditure increased significantly in 2020. In Slovenia, the very broad health benefit package[164] is financed from compulsory and complementary health insurance. The coverage of the population with compulsory insurance is almost 100%, and 95% of persons liable for co-payment are included in the complementary insurance scheme. The complementary health insurance premiums for socially disadvantaged people (approximately 100,000 people) are covered by the State. In 2018 (latest available data), only 0.8% of the population had dangerously[165] high out-of-pocket expenditure, which is the least among EU Member States (6.5%). Direct out-of-pocket expenditure[166] as a share of total health expenditure is also among the lowest in the EU (see Indicator 3.12). However, the share of health expenditure in total household expenditure increased from 1.9% in 2019 to 2.4% in 2020, while the EU average remained stable (3.3%) (OECD and EU, 2022).

The COVID-19 epidemic further reduced the accessibility of healthcare but also boosted the use of e-health services. The measures to increase the capacity to care for COVID-19 patients caused slowing down or temporarily suspending some non-urgent outpatient and hospital treatments in the three

[161] According to the EHIS survey, in Slovenia in 2019 13.5% of those surveyed had consulted a psychologist, psychotherapist or psychiatrist for what they considered to be serious mental health problems (EU: 16.2%), compared to only 6.9% in 2014 (Eurostat, 2023).

[162] The age limit for premature death is set by agreement at 64.99 years. Deaths before the age of 65 are classified as avoidable (NIJZ, 2022).

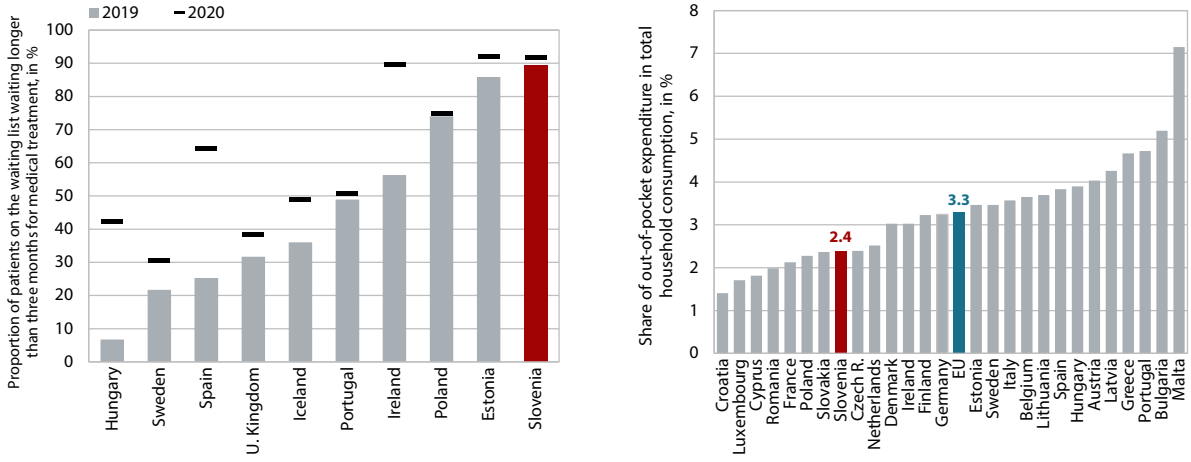
[163] Avoidable mortality includes diseases and conditions that can be prevented or successfully treated. In 2019, the methodology for calculating the *avoidable mortality* indicator, which is used to assess the performance of the healthcare system and consists of two indicators, was changed: *1. Mortality rates that can be avoided by preventive examinations* (preventable mortality) and 2. *Mortality rates due to treatable causes* (treatable (amenable) mortality).

[164] The benefit package includes services at the primary, secondary and tertiary levels, medicinal products, medical devices, sick pay for sick leave of over 20 days, and certain travel expenses. Full (100%) coverage is provided for the services related to cancer, communicable diseases, family planning, emergency treatment, long-term medical care in hospitals and other settings, and services for children/students up to 26 years of age. Costs of other services are divided, this between 10% and 90% of the costs, which are covered from complementary health insurance (for more details, see IMAD, 2021).

[165] Out-of-pocket health expenditure represents a risk to a household when it exceeds 40% of the household's capacity to pay above the minimum cost of living, or above the basic necessities basket, which includes not only food but also other essential consumption items and housing costs (Thomson et al., 2019).

[166] Out-of-pocket expenditure relates to direct payments for services not included in the obligatory health benefit package and not covered from the compulsory and complementary health insurance. The greatest share of these (34%) is spent on non-prescription or "white prescription" medicinal products, followed by medical devices (corrective glasses), self-pay outpatient services, including physiotherapy and alternative medicine, dental services, etc. According to WHO recommendations, direct out-of-pocket expenditure is still acceptable until it accounts for around 15% of health expenditure; in Slovenia, it accounted for 11.8% in 2021 (see Indicator 3.12).

Figure 49: Waiting times were among the longest in Slovenia even before the epidemic, but in 2020 they increased further (left); affordability of healthcare was good in 2020 (right)



Source: OECD (2023). Note: The left figure shows the countries with available comparable data.

epidemic years. In spring 2022, unmet healthcare needs for epidemic-related reasons continued to be reported by 18% of the population, the same proportion as in 2021 and the same as the EU average (Eurofound, 2022a). In order to mitigate the effects of poorer accessibility on public health, the volume of remote consultations has increased greatly in the last three years, and e-prescriptions and e-referrals have become the predominant form of treatment in the last two years (see Box 3). In addition, during the epidemic, the availability of specialist reports in the Central Patient Data Register, set up within the framework of the eHealth project, was significantly improved, so that patients no longer have to physically bring their reports to outpatient clinics (MZ, 2023c). On the other hand, relatively high digital literacy is required to consult and make an appointment via email and to use the zVEM portal,[167] which has reduced the accessibility of healthcare for populations with poor digital skills. At the secondary level, the number of first and follow-up examinations in specialised outpatient services still lagged behind in 2022 compared to 2019, but there were more diagnostic imaging and other services, so that the total number of treatments increased. In the hospital sector, 4.5% fewer services were provided in 2022 than in 2019, which further increased long waiting times. According to the NIJZ, on 1 January 2023 there were 117,358 people waiting beyond the acceptable waiting time, or one-third more than on 1 January 2022 (88,233 people). To increase accessibility and reduce waiting times, a law was passed in 2022 (Government of the RS, 2022d), which stipulates that from 1 September until the end of 2024, service providers will be paid by results for all services provided and will receive an allowance for the increased volume of work for special workloads (HIIS, 2023).

Access to healthcare is compromised by a shortage of family doctors and long waiting times at the secondary level. Access to healthcare has been deteriorating in Slovenia for several years and the epidemic has exacerbated the situation, especially at the primary level due to a shortage of healthcare staff and at the secondary level due to a shortage of nurses and long waiting times. The deterioration in accessibility is reflected in the high unmet needs for medical examination, which increased sharply in 2021, mainly as a result of waiting times (Indicator 3.10).[168] At the primary level, the number of people without a personal doctor of their choice increased by almost a quarter in 2022 (132,185 people at the end of 2022).[169] These problems are particularly severe in Ljubljana, where 25% of insured persons were without a doctor of their choice as at 30 November 2022, while in other branches of the Health Insurance Institute of Slovenia (HIIS), this share was for the most part less than 3% of insured persons (MZ, 2023c). As a temporary solution, in October 2022, the Government of the Republic of Slovenia, through an intervention act (Government of the RS, 2022e), provided for the gradual establishment of 94 outpatient clinics for the people without a personal doctor of their choice, which started to be set up in January 2023. At the primary level, the situation became serious already in 2018 due to the lowering of the weighted capitation and doctors retiring or leaving the public healthcare network. According to the Medical Chamber of Slovenia's estimates, there is a shortage of 450 family medicine outpatient clinics in order to be able to meet the norm of a maximum outpatient clinic workload of around 1,200

[167] The zVEM portal is the entry point to eHealth services: referrals, making appointments, prescriptions, specialist reports and other documents (NIJZ and MZ, 2023). From 2019 to 2022, the number of users of the zVEM portal increased from around 44,000 to 450,000 (MZ, 2023a).

[168] At primary level, the number of visits to doctors is increasing every year due to the ageing of the population. After a decline in 2020, growth accelerated strongly in 2021 and 2022, averaging more than 9% in both years (2013–2019: average 3% per year) (HIIS, 2023). Expansion of the primary level network has been only partially carried out, due to a shortage of personal doctors.

[169] The increase in 2021 was partly related to high employment growth, as among persons without a personal doctor of their choice, the share of foreign nationals with temporary residence in Slovenia increased the most.

registered persons. However, according to international comparisons on the coverage of the population by family doctors,[170] we would need 770 more (MZ, 2023c). Despite the guaranteed financial resources for the expansion of programmes in recent years,[171] they have only partly been carried out, due to the lack of suitable staff. Several measures were adopted in 2021 to address the situation at the primary level,[172] which were further supplemented in 2022.[173] The problem at the secondary level is overly long waiting times, in particular for some elective (non-urgent) surgical procedures. In 2019, the share of patients who had been waiting for some surgical procedures for more than three months was the second highest among the eight countries for which comparable data are available. In 2020, this share increased even further (Figure 49, left). The intervention act of July 2022 (Government of the RS, 2022d) made payment according to the outturn of the services provided free of any limitations, whereby providers were to be paid for all health services rendered, including those above the contractually agreed plan of the Health Insurance Institute of Slovenia (HIIS) and which had not been paid in the past due to limited financial resources. In order to provide as many healthcare services as possible, this act also allows healthcare providers to conclude additional work contracts with their employees if they provide healthcare services outside regular working hours.

The problems of long-term care were exacerbated by the epidemic, in particular due to the lack of staff in residential care homes for the elderly and poorly developed home care; despite rapid growth, public spending on long-term care still lags behind the EU average. In 2021, 14.3% of the population aged 65 and over reported having serious long-term difficulties in carrying out daily activities, which is lower than the EU average (15.9%) and significantly lower than self-assessments of disability in previous surveys.[174] In 2020, the participation of people aged 65 and over in formal long-term care in Slovenia was slightly higher than the average of OECD countries for which data are available, mainly due to higher participation in institutional care, but the participation in formal home care was still lagging well behind (OECD, 2021e).[175] In 2019, only 17% of people over 65 years who were severely handicapped in basic daily activities said that they received formal home care (EU: 34%) (Eurostat, 2023). Inadequately regulated long-term home care increases the burden on families and the pressures on institutional care and on the use of healthcare services (IMAD, 2021a). In 2020, the Government allocated additional funds for 620 new jobs in institutional care, primarily in residential care homes for the elderly (ZZUOOP, 2020). With the support of the REACT-EU fund, investments in improving the infrastructure of public residential care homes not aimed at increasing the capacity of institutions started in 2021, and additional concessions were granted to expand the network (MDDSZ, 2022c). Public spending on long-term care has been increasing rapidly since 2017, reaching 1.1% of GDP in 2020 (EU: 1.4%), of which 0.18% of GDP, or 16%, was spent on personal assistance (Indicator 3.13). A new Long-Term Care Act (ZDOsk) was adopted in December 2021 and amendments to this Act at the end of 2022, postponing the application of the Act to January 2024. The main reason for the adoption of the amendments to the Long-Term Care Act is to define the sources and modalities of public financing of long-term care, which were not regulated by the originally adopted act, while the key orientation remains the acceleration of the development of home care, deinstitutionalisation and a uniform assessment of eligibility for entry into the long-term care system.

For people with disabilities, the Personal Assistance Act (ZOA) has significantly improved the possibilities for independent living at home. The number of personal assistance users has been increasing steeply since the enactment of the Personal Assistance Act, with 3,368 in 2022 (38% more than in 2021), while public expenditure for this purpose has also been rising sharply (MDDSZ, 2023).[176] In the middle of 2021, amendments to the Personal Assistance Act were adopted, laying down additional conditions for assessing the eligibility to personal assistance and certain restrictions for service providers. Improving the availability and accessibility of social protection services and social protection programmes aimed at deinstitutionalisation remains one of the main objectives in the field of social protection. In 2020, the ratio between the users of community forms of social protection and users of institutional forms of social protection amounted to 1 : 1.17[177] (excluding

[170] In 2019, Slovenia had 68 family doctors per 100,000 inhabitants, compared to an EU average of 105. However, in many Member States, the role of paediatricians and gynaecologists is performed by family doctors at the primary level, so such comparisons are not the most appropriate.

[171] A special government project for rewarding teams at clinics with a surplus of registered patients at the primary level (exceeding the weighted capitation of 1,895), extending the network of family medicine clinics to 64.6 teams, introducing healthcare administrators in family medicine teams, and facilitating faster employment of doctors from abroad (MZ, 2022a).

[172] Salary supplements for specialty trainees for family medicine and more posts for specialisation, the expansion of competences of nurses, a three-month internship in family or emergency medicine, additional scholarships for medical and nursing students, increased enrolment in medicine and stomatology programmes, and easing language conditions for employing foreign doctors (MZ, 2022a).

[173] Salary supplements for young doctors to choose a specialisation in family medicine; possibility of making appointments by telephone at the primary care level throughout the clinic's working hours, with a call-back service for the patient provided (Government of the RS, 2022e).

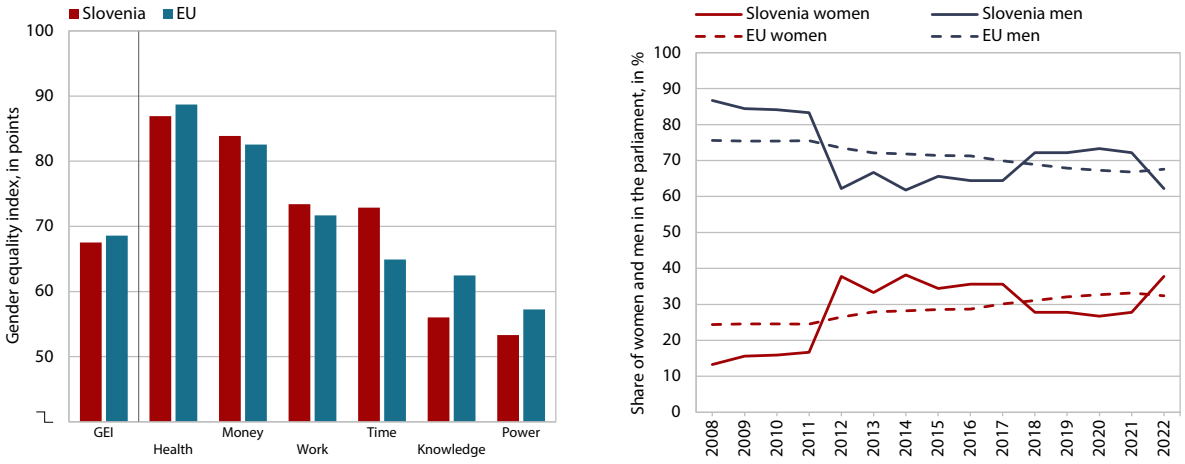
[174] This indicator is also used in the calculation of healthy life years, see Indicator 3.7.

[175] In 2020, 8.5% of the population aged 65 and over received formal long-term care, according to internationally comparable data (OECD: 9.9%). 4.6% of population were in institutional care (OECD: 3.6%) and 7.3% in home care (OECD-21: 10.4%). On average, in 2020, there were 68,183 recipients of long-term care in Slovenia, which is about 1,800 fewer than before the epidemic, and the decrease was mainly due to numerous deaths of residents in residential care homes for the elderly (SURS, 2022a).

[176] In 2020, 1,209 users of personal assistance were recorded; in 2021, the number was 2,472. Public expenditure on personal assistance has been rising sharply for four years: from EUR 3.8 million in 2018 to EUR 84.4 million in 2020, EUR 127.5 million in 2021 and EUR 173.5 million in 2022 (MDDSZ, 2023).

[177] The calculation used in ReNPSV13–20 also took into account personal assistance users, with the ratio reaching 1 : 1.08 in 2020, which was a

Figure 50: Slovenia was slightly below the EU average in the Gender Equality Index* in 2022 (left), while women's political representation increased and was again above the EU average in 2022 (right)**



Source: EIGE (2022c). Notes: * Index with a value of 1 means complete inequality and 100 perfect equality. The data for calculating the index for 2022 are mostly from 2020. ** Annual data are for the 4th quarter.

personal assistance, as it is implemented under disability legislation), with a target ratio by 2030 of approximately 1 : 1 (ReNPSV22–30, 2022).

Slovenia's progress in terms of the Gender Equality Index was faster than in most EU Member States until 2017 but has since stalled and has been slightly below the EU average in the last two years (see Indicator 3.8). In 2021 and 2022, gender inequalities were slightly higher in Slovenia compared to the EU, mainly due to widening power inequalities. Women's political representation was declining after 2017 but increased again in 2022, putting Slovenia above the EU average (EIGE, 2022c).[178] The share of women in managerial positions in the economy remains relatively small and below the EU average. Slovenia has been below the EU average in the knowledge domain throughout the monitoring period (since 2013), with a still higher share of women than men among tertiary graduates, and the unequal concentration of women and men in different study programmes remains a key challenge. In the domains of work and money, Slovenia is better than the EU average, with a narrowing of the gender gap in employment rates and an adjusted wage gap that has been around 12% for a long time (see Section 3.1). According to the latest data considered, Slovenia is also above the EU average in the time domain, but additional research shows that women still spend more time on caring responsibilities and unpaid domestic work than men.[179] In the health domain, Slovenia has again lagged behind the EU average since 2022: lifestyles of women and men worsened over the period 2014–2019, but health-related risk behaviours are more common among men.[180] Men more often than women consider that they are in good or very good health; still, women live almost 6 years longer than men on average.

The satisfaction with the work-life balance in Slovenia is slightly above the EU average, with women taking on care responsibilities more often than men. A good work-life balance has a positive effect on the health of employees and their satisfaction with work and life (Eurofound, 2018c; Humer et al., 2016). In 2018, more people were satisfied with their work-life balance in Slovenia than the EU average (Slovenia: 81%; EU: 78%) and men were more satisfied than women (Eurobarometer, 2018a). In addition to the length of working time, the organisation of working time (regularity and predictability and atypical working hours) and working environment also have a significant impact on the work-life balance.[181] In 2021, the proportion of employees in Slovenia who felt that their working hours fit family or social commitments well or very well was higher than the EU average (see Eurofound, 2022b). Although women in Slovenia do almost the same amount of paid work per week as men, they spend more hours on care responsibilities and unpaid housework than men. During the COVID-19 epidemic, significantly more women than men spent more than four hours a day caring for children and the elderly and doing household chores (EIGE, 2022a); women were faced with more problems in dividing their time between work and family than men (Eurofound, 2020, 2021b, 2022b). Fathers largely fail to make use of

remarkable improvement compared to previous years, due on the one hand to the high increase in the number of personal assistance users and on the other hand to the decrease in the number of residents in residential care homes during the epidemic (Smolej Jež and Trbanc, 2021).

[178] The latest available data is used to calculate the index (for 2022 it is mostly from 2020; for the power domain it is the average of 2019–2021).

[179] In the time domain, the index calculation still takes into account data from 2015 and 2016, which is why the EIGE conducted a survey on gender equality and the socio-economic impact of the COVID-19 pandemic in June and July 2021 (see Indicator 3.8).

[180] For the calculation of the 2022 index, 2019 data were available for the Healthy Behaviour patterns sub-domain after a five-year period.

[181] Very intensive work and related stress can have an adverse impact on private life, while the support of superiors and co-workers facilitates the balancing of work and private life (Eurofound, 2018c; IMAD, 2022e).

Box 3: Healthcare system resilience[1]

Healthcare system resilience is the ability of health systems not only to respond to and manage shocks, but also to minimise the negative consequences of such disruptions and recover as quickly as possible (OECD/EOHSP, 2021b). Better preparedness for urgent health situations requires long-term planning of labour force and increased investments in the healthcare system. Building a resilient health system also requires reliable data and analysis, evidence-based decisions on investment in healthcare, and careful redesign of health systems. It is important for countries to use the lessons learned from the three years of the epidemic as a guide for adapting health systems and building resilience. This is why the European Commission and the OECD have developed indicators to assess the resilience of a health system (OECD and EU, 2022):

1. **Slovenia has significantly fewer doctors than the EU average and lags far behind in the number of graduate nurses.** The ability to rapidly scale up intensive care capacity is important for the resilience of the health system, and this includes beds and other equipment as well as staff. For reasons of the critical shortage of intensive care capacity, Slovenia also responded by rapidly setting up temporary capacity and increasing the number of intensive care beds at the end of 2020. The use of digital technologies has improved coordination and the use of available capacities, but as in other countries, the increase in capacity has been limited by the human resources available. It will therefore be crucial for the resilience of the health system that enough doctors and nurses are trained in intensive care and that adequate staffing reserves are in place. The latter is also linked to having enough doctors and nurses throughout the health system. In 2020, Slovenia had 3.3 doctors per 1,000 inhabitants, which is much lower than the EU average (4.0). While the number of active nurses per 1,000 population exceeds the EU average (SI: 10.5; EU: 8.3), some estimates suggest that there is still a shortage of between 1,500 and 2,000 nurses (MZ, 2023c) and that the gap in the number of graduate nurses is also a problem (SI: 4.3; EU: 6.2) (Eurostat, 2023). The proposals for long-term addressing of healthcare staff shortage include preparing the model projections of labour force in healthcare with regard to both volume and structure, additionally training healthcare staff for work with new digital technologies, training staff for work with older multimorbid patients;[2] and improving conditions for work and introducing incentives to attract more young people into the profession (OECD/EOHSP, 2021b). The OECD estimates that about half of all new investment needed to strengthen the resilience of health systems should be devoted to improving working conditions to recruit and retain more healthcare workers (OECD/ILO, 2022).

2. **On average, Slovenia spent a higher share of GDP on healthcare investment than EU Member States in the 2016–2020 period.** Capital investments in healthcare facilities, diagnostic and therapeutic equipment, and information and ICT equipment have an impact on the ability to respond to the needs of the population and thus on the long-term resilience of the healthcare system. In Slovenia, the general government sector spent on average 0.34% of GDP on healthcare investment annually in the 2016–2020 period (EU: 0.28% of GDP), while in 2020, in most countries, including Slovenia, investment increased significantly (Eurostat, 2023).

3. **According to the latest long-term projections of age-related public spending, the increase in health and long-term care expenditure over the 2019–2070 period in Slovenia would be substantially higher than the EU average, with lower initial shares in GDP.** The EC's triennial projections of age-related expenditure show that, under current policies, public health spending can be expected to increase by 1.5 p.p. of GDP in the reference scenario (EU: 0.9 p.p. of GDP) and on long-term care by 1.3 p.p. of GDP (EU: 1.1 p.p. of GDP) in the coming decades (EC, 2021g). Potentially higher growth in public expenditure on healthcare and long-term care, taking further account of various non-demographic factors (the risk scenario[3]), would result in an even greater pressure on the long-term sustainability of public finances. However, expenditure levels in 2019 (the base year of the projection) were significantly lower than the EU average for both healthcare (5.9% of GDP; EU: 6.6% of GDP) and long-term care (1.0% of GDP; EU: 1.7% of GDP) (for more see IMAD, 2021).

4. **Slovenia has been successful in implementing e-health, but the main challenge is to complete the roll-out of the e-health record.** A digitalised information infrastructure that ensures timely and reliable sharing of clinical and other information can improve health outcomes and efficiency and also provide valuable data for researchers and system managers. In 2021, Slovenia was one of 10 countries out of a total of 14 EU Member States where e-health records were already 100% rolled out at the primary level and one of 12 countries where

[1] For more, see Development Report 2022 (IMAD, 2022e), Box 6.
[2] Patients with two or more chronic diseases at the same time.
[3] In addition to the effects of ageing and the assumption that half of the future gains in life expectancy are spent in good health, the risk scenario for health expenditures also takes into account income elasticity of 1.4 (dropping towards 1.0 by the end of the period) and hence gives greater weight to the pressure of technological progress. Long-term care expenditure takes into account demographic change and the assumption of the convergence of expenses and the increase in coverage of long-term care to the level of the EU average by 2070.

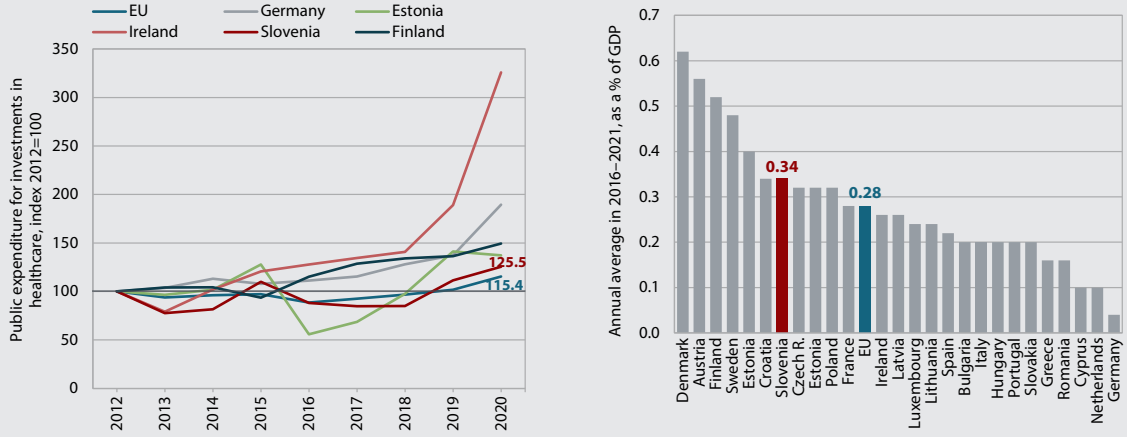
information on the medicines prescribed for each patient was already electronically available at all healthcare levels (OECD and EU, 2022). The final rollout of the e-health record, planned by the beginning of 2024, also implies the exchange of diagnosis data and all other relevant patient information between different providers at all healthcare levels (MZ, 2023c). In January 2023, the Strategy for the Digitalisation of Healthcare in Slovenia for the period 2022–2027 was adopted (MZ, 2023c), which is a fundamental document for the further digital transformation of healthcare.[4]

5. **Slovenia has a lower COVID-19 vaccination rate than most EU Member States.** Vaccination against COVID-19 successfully prevents the more severe course of the disease and reduces mortality (OECD, 2022d). Countries with a greater share of vaccinated population had a smaller share of patients hospitalised due to COVID-19 in 2021 and 2022, which helped maintain the accessibility and functioning of the healthcare system for other patients. By the end of 2022, only 68% of Slovenia's population was vaccinated with two doses, which is considerably below the EU average (73%) (ECDC, 2023).

6. **The introduction of remote consultations has been a success.** The HIIS introduced payment for remote consultations at the primary level in spring 2020 and at the secondary level in autumn 2020, helping to improve access to healthcare during the epidemic. At the primary level, the share of remote consultations reached 5.2% in 2020, the lowest among the 12 EU Member States (22%) (OECD, 2023b). However, the number of telephone and e-consultations at the primary level increased by 400% and reached 20% in 2021 and 18% in 2022 (MZ, 2023c; HIIS, 2023). The Eurofound survey (2021b) showed that in the first 12 months of the epidemic, 64% of Slovenia's population (EU: 53%) reported receiving a prescription via internet or telephone and 65% of population had remote consultations, which is the second highest share in the EU after Spain (EU: 45%).

7. **The capacity of national laboratories to test for Sars-Cov-2 virus was among the best in the EU.** In the event of an epidemic, a resilient health system must be able to rapidly increase laboratory testing capacity and then adapt to detect and monitor virus variants. This was particularly important in the COVID-19 epidemic, because different variants of the virus also influenced changes in viral transmissibility and thus the effectiveness of containment measures and vaccines. On average in 2021, Slovenia was the fourth best Member State in terms of the capacity of detecting positive samples in all samples tested, at 13%, compared to an EU average of 7% and only six Member States above 10%.[5] In addition, Slovenia was also among the countries that managed to maintain the recommended proportion of positive samples detected in most individual weeks in 2021 (Slovenia: 44 weeks; EU: 26). Despite the rapid expansion of capacity during the epidemic years, further improvements will be important for effective responses in the future (OECD and EU, 2022).

Figure 51: Public spending on health capital investment increased strongly in 2019 and 2020 (left) and was higher than in the EU (right) on an annual average over the period 2016–2020



Source: Eurostat (2023). Note: expenditure according to the COFOG methodology; the EU average is unweighted; there is no data for Belgium, so it is not included in the EU average.

[4] This includes the introduction of new digital services and the digitalisation of existing ones, faster access to and sharing of patient data, the use of modern information technology to communicate with patients and healthcare staff, the development of analytical systems to take and adapt healthcare actions in real time, and better planning of patient care.

[5] In January 2021, the European Commission recommended that countries achieve a positivity rate of between 5 and 10% (OECD and EU, 2022).

their parental rights,[182] which is why legal changes were adopted in 2022[183] to allow for a more equal sharing of care work between parents. The epidemic accelerated the shift to teleworking in Slovenia and on average in the EU, and employees who are able to telework would like to maintain this form of work (at least occasionally) in the future (strong preference for hybrid working arrangements)[184] (Eurofound, 2022a).

In Slovenia, more adults were physically active in 2022 than before the epidemic, but children's motor fitness is still worse than before the epidemic. In 2019, a third of adults in Slovenia were physically active for more than 150 minutes a week, about the same as the EU average (the highest in the Netherlands, Sweden and Denmark – 55%), and half were physically inactive (Eurostat, 2023). According to the most recent survey in 2022, however, the proportion of physically active people in Slovenia was much higher than the EU average, with 52% of respondents taking part in sport at least once a week (EU: 38%), similar to 2017, and significantly more taking part in other physical activity than in 2017 (63%; EU 50%). Women, older people and people on low incomes were less physically active (Eurobarometer, 2018c, 2022e), so there is a need to develop sporting activity programmes across the life course and to encourage greater participation, especially for less active population groups.[185] Participation in sporting activities is also too low among children and young people: in 2017/2018, only 18% of 15-year-olds (many more boys than girls) took part in at least one hour of moderate to vigorous physical activity per day, which is the minimum level of physical activity recommended by the WHO, although higher than the EU average (14%) (OECD, 2023a). In 2022, children's motor fitness improved slightly compared to 2020 and 2021, when it worsened dramatically due to the closure of schools and other activities during the epidemic, but still remained well below pre-epidemic levels. Negative consequences are also seen in the increase in the proportion of overweight children (Faculty of Sport, 2022) and, most likely, in the mental health of young people. After having been severely curtailed by the epidemic in 2020 and 2021 (IMAD, 2021b, 2022e), people's opportunities to engage in intergenerational, cultural and other social activities that enable an active life have increased with the lifting of containment measures in 2022.

[182] This includes paternity leave, parental leave and the right to work part-time for reasons of parenthood.

[183] The amended Parental Protection and Family Benefits Act adopted in November 2022 (ZSDP-1F, 2022) introduces, inter alia, 60 days of non-transferable parental leave for both parents, raises the ceiling for paternity and parental benefits, extends the possibility of part-time work due to parenthood, etc.

[184] In Slovenia, 52.5% of respondents wanted to telework at least a few times a month (EU: 64.7%) (Eurofound, 2021a).

[185] It would also be important to encourage adults to monitor their physical performance, for example through the SLOfit Adult and SLOfitsenior programmes (Faculty of Sport, 2022b).

3.3 A decent life for all

A decent life for all (Development Goal 3)

A decent life for all generations is based on creating the conditions in which all people will be able to realise their potential with dignity, equality and responsibility through activities in various areas. The main SDS guidelines to achieve this goal are aimed at (i) providing an appropriate level of income for a decent life and maintaining a low income and wealth inequality; (ii) creating sustainable systems of social protection and child protection and security; (iii) ensuring a good quality of the living environment; (iv) strengthening cooperation, solidarity and volunteerism; and (v) eliminating all forms of discrimination. A decent life is linked to an inclusive and healthy society, which is described in Development Goal 1.

2030 SDS performance indicators for Development Goal 3:

	Latest data		Target value for 2030
	Slovenia	EU average	
At-risk-of-poverty or social exclusion rate, in %	13.3% (2022) 276,000 persons	21.7% (2021)	<270,000 persons
Income distribution inequality, quintile ratio (S80/S20)	3.3 (2022)	5.0 (2021)	<3.5
Experience of discrimination, in %	9% (2019)	16% (2019)	<10

Note: * The at-risk-of-poverty or social exclusion rate has been measured using a new methodology since 2021 (see Appendix 1). The SDS target was valid until 2021, when the European Commission introduced a new measurement methodology at the EU level and, in line with the European Pillar of Social Rights Action Plan, coordinated with governments and line ministries in 2022 the new national targets for 2030 set for Slovenia in the ReNPSV22–30 (2022): to reduce the number of people at risk of poverty or social exclusion by 9,000 persons (including 3,000 children) compared to 279,000 in 2019.

The material well-being of the population in Slovenia slowly improved over the period 2015–2021, in line with the dynamics of economic development. The material well-being of the population is measured by the Actual Individual Consumption (AIC) per capita in PPS, which, in addition to a country's economic development (BDP per capita in PPS), also shows material well-being by taking into account the prices of the goods and services actually consumed by individuals (including public services and social protection). Over the last decade, Slovenia has consistently ranked around 18th among EU Member States, but in 2021, like Spain and the Czech Republic, it was still 15% behind the EU average (15th place).[186] In terms of GDP per capita in PPS, it was still 10% away from the EU average in 2021 (see Section 1.1 for more recent GDP per capita data), similar to Lithuania and Cyprus (Figure 52). At the same time, the gap between the two indicators was among the smallest in the EU, which could point to more coherent development, especially when taking into account other social and societal indicators, as the employment rate and gross disposable household income increased and income inequality and the risk of social exclusion decreased over the period 2015–2021. Some of the other quality of life indicators discussed in this chapter have also gradually improved, but the material and social situation of very low-income households and the situation of other vulnerable groups in society remain challenges that are not sufficiently addressed.

Government measures to mitigate the effects of the epidemic and rising prices contributed to the growth of gross disposable household income in 2020–2021[187] and mitigated its real decline in 2022. After the decline during the global financial crisis,[188] gross disposable income increased again from 2014, due to the revival of economic activity, and in 2016 it exceeded the 2008 level for the first time. Its growth continued during the epidemic, when the deterioration in the labour market situation was mitigated by the adoption of emergency job-retention measures. These, together with various other anti-corona measures and measures to help the population (see IMAD, 2022b, 2022a) supported further growth in gross disposable income in 2020 and 2021.[189] In 2021 and 2022, the economic recovery

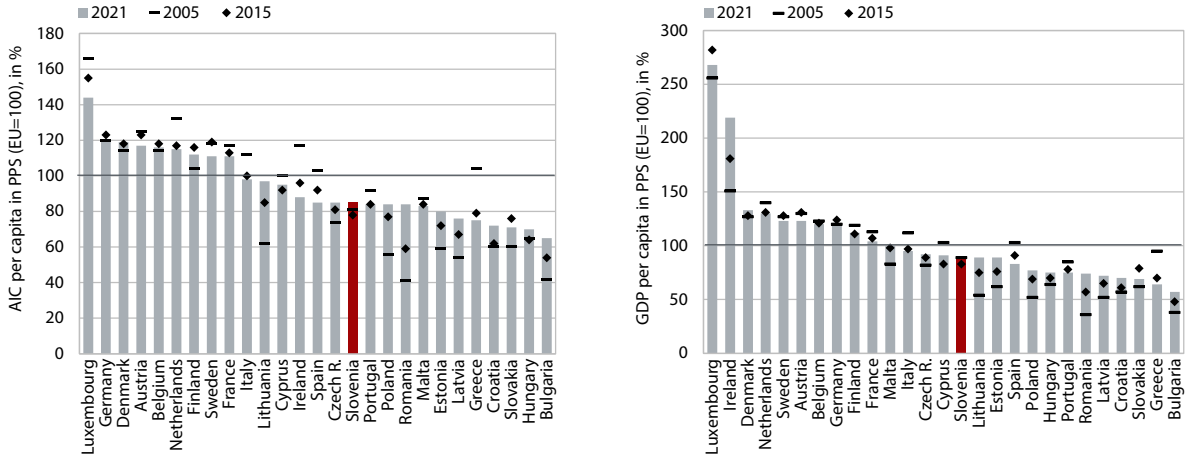
[186] In 2021, Slovenia was overtaken by Lithuania, with Malta, Portugal and Ireland lagging behind. In recent years, Poland and Romania have come very close to Slovenia; along with the Baltic countries, they have been the fastest approaching the EU average over the last two decades.

[187] Gross disposable income of households and non-profit institutions serving households comprises gross household income from employment, social benefits in cash, operating surplus, and mixed income and property less contributions and taxes.

[188] Due to the global financial crisis, compensation of employees, which account for the largest part of income, decreased markedly in 2009–2013 and, in addition to the decline in social benefits since 2012, had a significant impact on the decline in gross disposable income.

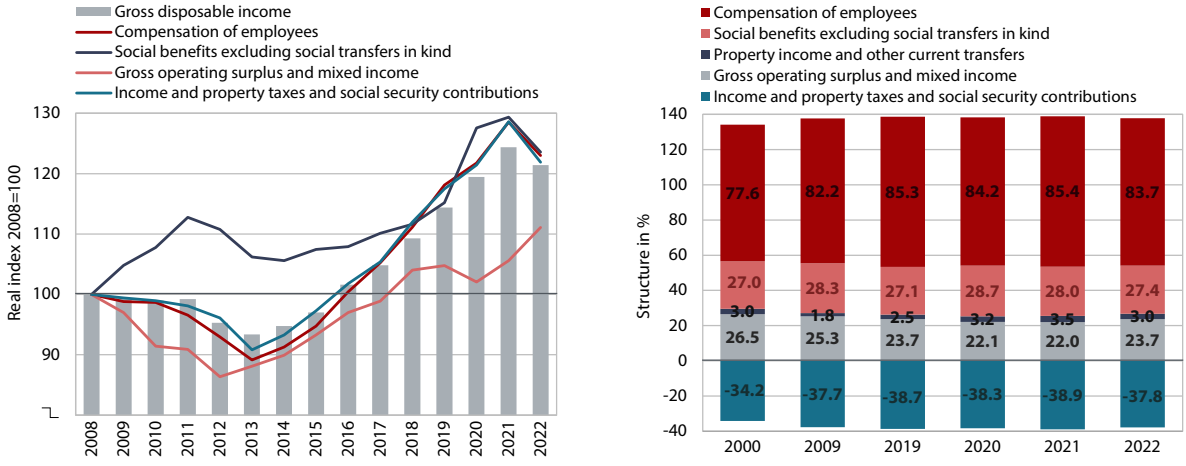
[189] In 2021, the net disposable household income per capita increased in real terms by 3.9% (according to the last available data). It increased above average in the Gorenjska (6.5%), Osrednjeslovenska (5.4%) and Koroška regions (4.1%) – in all three regions it was much higher than the average for Slovenia – and it was above average in Jugovzhodna Slovenija, despite a significant decrease in 2021.

Figure 52: Actual Individual Consumption (AIC) per capita in PPS and GDP per capita in PPS are slowly approaching the EU average



Source: Eurostat (2023). Note: For comparability between the two figures, the same years are shown (2005, 2015 and 2021), although for GDP per capita there are already data for 2022 available, putting Slovenia at 92% of the EU average (see Section 1.1 and Indicator 1.1 for more details).

Figure 53: Government measures had a significant impact on gross disposable income in 2020–2022



Source: SURS (2023h); calculations by IMAD.

also improved labour market conditions, which had a positive impact on nominal growth in compensation of employees;[190] however, in the face of high inflation, gross disposable income declined slightly in real terms in 2022 (by 2.4%, up by 9% in nominal terms). A further decline was prevented by government measures to mitigate the effects of the epidemic[191] and rising prices[192], mainly reflected in social benefits paid out, which increased further in nominal terms over the next two years after growing by more than 10% in 2020.[193] Gross operating surplus and mixed income also increased more strongly, after declining in 2020.[194] The growth in disposable household income affected the stronger growth in median equivalised disposable income, which reduced the lag behind the EU average, while a bigger lag is still present in people aged 65 or more and in people with tertiary education (see Indicator 3.18).

Income inequality has remained one of the lowest in the EU and, according to the criteria of wealth inequality, Slovenia ranks around the middle of the EU Member States that are members of the OECD. Slovenia is among the countries where income inequality rates are among the lowest in the EU and

[190] In 2021, the number of employed people fell by 12.6% and in 2022 by further 23.8%, while the average gross wage was higher by 6.1% in nominal terms in 2021 and by 2.8% in 2022.

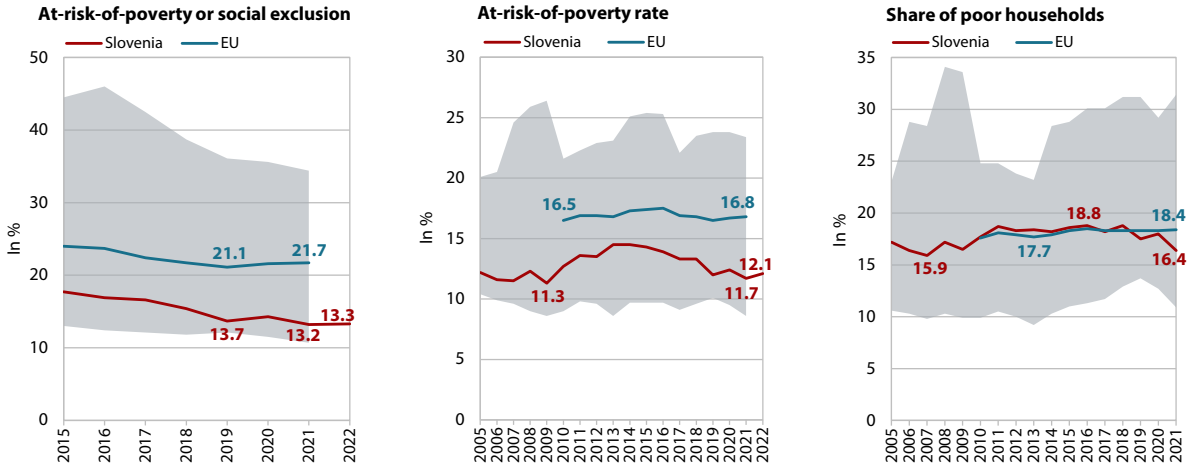
[191] Extension of the deadlines for redemption of tourist vouchers and 2021 vouchers and reimbursement of refunds due to quarantine or force majeure.

[192] Energy bonus for the poorest households, inflation allowance for families with children and a pensioner allowance.

[193] In 2022, social benefits, while declining in real terms at a nominal growth rate of 6.7%, were 7.3% higher in real terms compared to the pre-epidemic level (2019), the highest growth among all components of gross disposable income.

[194] Growth was influenced by high price increases (of residential property, which affects the growth of imputed income from housing, and services provided by sole proprietors) and by some of the intervention measures still in force in 2022.

Figure 54: The AROPE rate and at-risk-of-poverty rate are among the lowest in the EU, with the share of poor households* ranking 10th among EU Member States in 2021, after a significant reduction**



Sources: Eurostat (2023) and SURS (2023h), EU-SILC 2022 survey (based on 2021 income). Note: * share of households below the at-risk-of-poverty threshold. ** Eurostat estimates apply to the EU average. The shaded area shows the range between the EU Member States with the lowest and the highest values.

are gradually decreasing. The ratio between the lower and upper quintile population groups was 3.3 in 2022 (based on 2021 income) and thus within the SDS 2030 target for the sixth consecutive year. Low income inequality is ensured by low wage inequality, a system of progressive income taxation and, to some extent, social transfers. Low income inequality is also reflected in the Gini coefficient,[195] which in 2021 was the second lowest in the EU (Indicator 3.16). Wealth inequality[196] is higher than income inequality in most OECD countries, and the share of wealth held by higher income classes is much higher than the share of their income. Data for 2017 (the latest year available) showed that in OECD countries, the wealthiest 10% of households owned about half of the wealth in the country, which is twice as much as is the case for disposable income. In Slovenia, the wealthiest 10% owned 44% of wealth and 19.5% of income (OECD, 2023b; Eurostat, 2023).

Although Slovenia had one of the lowest at-risk-of poverty or social exclusion (AROPE) rates in the EU in 2019–2022,[197] certain vulnerable groups were more exposed to this risk than the EU average. According to the EU-SILC 2022 survey, which takes into account 2021 incomes (these reflect the impact of the epidemic but not the cost-of-living crisis), the AROPE rate has risen slightly year-on-year (Figure 54, left): the risk-of-poverty rate[198] has risen (by 0.4 p.p.), as has the very low work intensity[199] rate (by 0.2 p. p.), while the rate of severe material and social deprivation has decreased[200] (by 0.4 p. p.). 276,000 people were at risk of poverty or social exclusion, around 3,000 fewer than in 2019, the base year for the national target under the European Pillar of Social Rights for 2030 (i.e. at least 9,000 people, including 3,000 children). The AROPE rate for children in Slovenia was the lowest in the EU in 2019–2021, while the risk for children of less educated parents has been steadily increasing over the last three years and is above the EU average. The AROPE rate for single-person households and older people, especially women, also remains above average, reinforcing the age-related risk gap.

The at-risk-of-poverty rate continued to fall until 2021 but slightly increased in 2022 (based on 2021 income); the share of poor households and of the population just above the at-risk-of-poverty threshold remains high. The at-risk-of-poverty rate was gradually declining over the period 2016–2021 and was among the lowest in the EU, while according to EU-SILC data for 2022 (based on 2021 income) it slightly increased: 251,000 people lived below the at-risk-of-poverty threshold[201] and the persistent at-risk-of poverty rate[202] has significantly decreased (from 123,000 to 100,000 people). However, some population groups are still more likely to be at risk of poverty than the EU average, in particular one-person households, retired persons (and those aged 65+), the low-educated, people

[195] The Gini coefficient is a measure of statistical dispersion based on comparing the cumulative shares of the population with the cumulative shares of the income they receive; it has values between 0 and 1, where 0 means perfect equality and 1 means perfect inequality (OECD, 2021d)

[196] Wealth inequality is measured by the ratio of the average net wealth to the median net wealth or by the share of wealth owned by the wealthiest (10%, 5% or 1% of the wealthiest) (OECD, 2018c)

[197] See Appendix 1 for the new EU-SILC measurement methodology for 2020–2030.

[198] The share of persons living in a household with an equivalent disposable income of less than 60% of the median equivalised disposable income (EDI) of all households, using the so-called OECD adjusted equivalence scale.

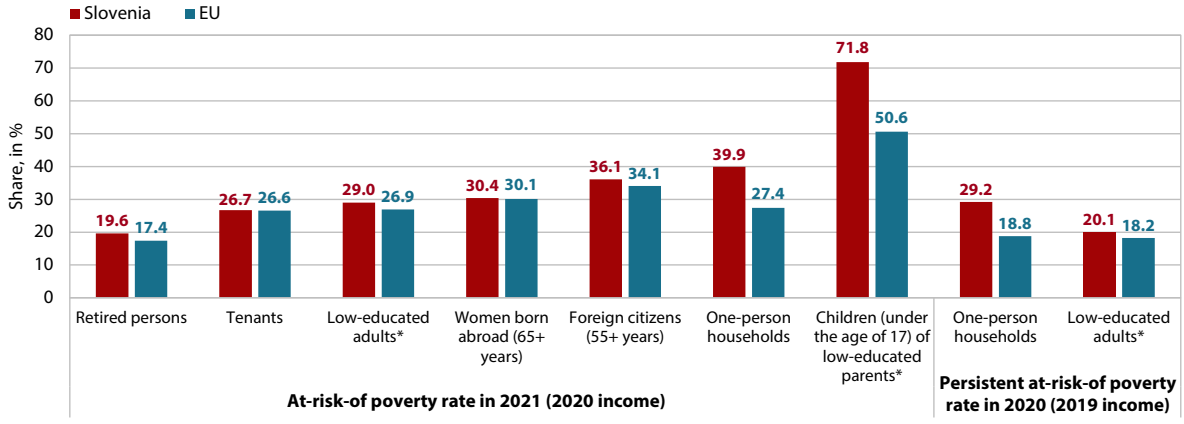
[199] The very low work intensity households rate is the percentage of persons aged up to 64 living in households whose adult members (i.e. 18–64 years old) worked less than 20% of their available working time in the income reference year (Stare et al., 2022).

[200] See Indicator 3.22 and Appendix 1 for more details.

[201] In 2022 (based on 2021 income), people living below the at-risk-of-poverty threshold were those whose net disposable income per equivalent adult was below EUR 827 per month. The threshold for a two-member household without children was set at EUR 1,241 per month, see Intihar (2023).

[202] Share of persons who lived below the at-risk-of-poverty threshold in the current year and at least two out of three preceding years.

Figure 55: Some vulnerable groups in Slovenia are more exposed to the risk of (persistent) poverty than the EU average (latest comparable international data)



Source: Eurostat (2023). Note: * with less than primary, primary and lower secondary education (levels 0–2). For data reliability and comparability, see Appendix 1.

with disabilities, etc. (see Indicator 3.15 and Figure 55). The share of poor households,[203] which was above the EU average in 2010–2018, also decreased significantly in 2021 (Figure 54 right), which is likely to have been driven by the Government's actions during the epidemic. Single households and households without dependent children have been in a worse position than the EU average for many years. The Court of Audit of the Republic of Slovenia (2021c), Human Rights Ombudsman (2021), Social Protection Institute of the Republic of Slovenia (2021) and different professional analyses (EAPN, 2022; Korpič-Horvat et al., 2022; Kump and Stropnik, 2022) point to the high at-risk-of poverty rate of certain social groups, in particular people with disabilities and other handicaps, elderly women, single-parent families, certain groups of foreign nationals (e.g. foreign posted workers), migrants, tenants, etc. They also point to the intergenerational transmission of deprivation, hidden poverty (homeless, Roma, non-citizens), energy poverty, and insufficient monitoring and targeted action by the State. The last three years have seen an increasing concentration of people with incomes 10% above the at-risk-of-poverty threshold[204] (around 150,000 people per year), so a sudden increase in household costs due to a cost-of-living or other crisis could quickly push a large share of the population below the at-risk-of-poverty threshold.

In Slovenia and on average in the EU, rates of (severe) material and social deprivation (MSD)[205] were declining for a long time and reached their lowest level in 2022, but absolute poverty remains acute.[206] Over the last six years, (severe) MSD rates have fallen more than the EU average, which has also significantly improved Slovenia's ranking relative to other Member States[207] (Indicator 3.22). The EU-SILC 2022 also shows a further decrease in severe MSD (by 0.4 p.p.). Despite encouraging trends, many people remain trapped in living below minimum conditions of subsistence (absolute poverty), which the State mitigates with cash and material assistance: on average in 2022, around 105,000 people were eligible for financial social assistance (FSA) and pension support (PS), and around 150,000 people, mainly women and children up to the age of 15, received material assistance in the form of food and clothing (MDDSZ, 2022d, 2023).[208] Eligibility for financial benefits and the amount of assistance (census) depend on the value of the minimum basic income (MBI), which is determined by law every six years.[209] After each new determination of the BAMI, its value is generally further away from the minimum cost of living and the at-risk-of-poverty threshold year after year, so in the year of high inflation and rising prices, the gap was even wider than otherwise.[210] Adequate levels of

[203] Share of households with a disposable income of less than 60% of the median equivalised disposable income of all households.

[204] Share of persons living in a household with a disposable income of more than 60% of the median and less than 70% of the median equivalised disposable income of all households.

[205] According to the new definition (see Appendix 1), the calculation of MSD now includes persons who are deprived in at least 5 of the 13 items, and the calculation of severe MSD includes persons who are deprived in at least 7 of the 13 items measuring the ability to pay expenses, adequate food, clothing and footwear, and a decent standard of living.

[206] Absolute poverty means living below the minimum conditions of subsistence, determined on the basis of nutritional needs and other basic necessities for basic survival. It is prevented by curative policies (cash social assistance programmes, pension support, etc., food and clothing aid distributions, social assistance services, etc.) (see ReNPSV22–30, 2022, for more detail).

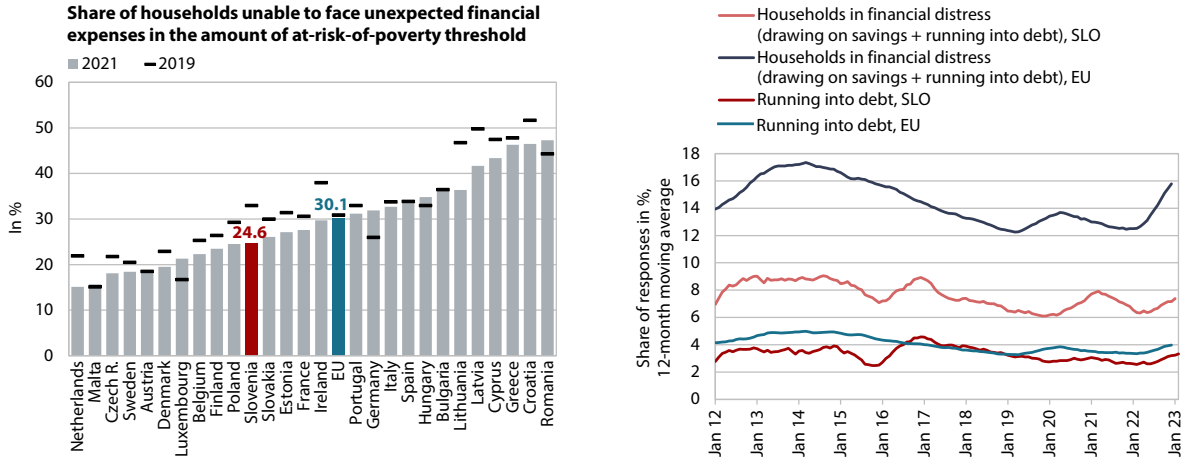
[207] The exception was 2020, when severe MSD grew slightly in Slovenia and the EU. In recent years, Slovenia has ranked around 10th in both indicators, but in 2021 it ranked 3rd in severe MSD and 5th in MSD (Eurostat, 2023).

[208] The new Programme for the Elimination of Material Deprivation 2021–2027 provides annual continuous assistance in food to around 164,000 people with the highest at-risk-of-poverty rate (MDDSZ, 2022d).

[209] The appropriate level of the MBI is important, as it determines eligibility for the FSA and the PS and the amount of assistance. According to the latest calculation from October 2022, the FSA was EUR 488.58 per month, but EUR 421.89 per month was paid until April 2023 and EUR 465.34 from 1 April.

[210] In 2022, MBI (including the housing transfer) only reached 32% of median EDI in the case of single unemployed persons and 44% of median EDI in the case of families with two dependent children and two non-working adults (OECD, 2023b).

Figure 56: Households' financial position improved more than the EU average in 2021 (left), while households' financial difficulties strengthened in 2022 but did not reach the peak levels of 2017 and 2021 (right)



Sources: Eurostat (2023) and EC (2022k), left: EU-SILC 2021 (based on 2020 income); right: Consumer Opinion Survey. Note: For Slovakia (left), the latest figure is for 2020; for the EU, it is the average of Eurostat (left) and the EC (right).

social transfers aimed at the survival of those who, for a variety of reasons, are unable to provide for themselves, are important for preventing absolute poverty and preserving human dignity.

In the period 2010–2021, social transfers were more successful than the EU average in reducing the at-risk-of-poverty rate, but too often they also led to unequal treatment of beneficiaries of social benefits, which should be tackled by a comprehensive reform of social policy. Without social transfers to the poorest households, the at-risk-of-poverty rate would have been twice as high in 2022 (21.2%; 26.7% in the EU in 2021). Social transfers eliminated it by as much as 44.2% on average over the period 2010–2021 (EU: 33.4%). Despite the important impact of social transfers in preventing exclusion, disadvantage and poverty, many experts and institutions conclude that (i) social legislation in Slovenia is extremely complex, outdated and in need of comprehensive reform; (ii) the information system (ISCSD2), despite upgrades, is poorly functioning and targeted, which also leads to discrimination;[211] (iii) social work centres (SWCs) have been understaffed for a decade,[212] and SWC staff are poorly trained.[213] In addition to the legal, procedural and technical anomalies of the social system, all of the above calls into question equality before the law, proportionality, personal dignity, and the effective coverage of beneficiaries with financial and material benefits (the enabling principle) (Korpič-Horvat et al., 2022; MDDSZ, 2022c; Court of Audit of the Republic of Slovenia, 2021c; IMAD, 2021a). More frequent and transparent regulation of the determination of the level of the FSA and greater effectiveness of this instrument of redistribution and solidarity could make an important contribution to tackling severe MSD and persistent poverty, as it is the only one that takes into account the income and material situation of households. Some of the measures taken during the cost-of-living and other crises of the last three years have bypassed it, leading to injustices and discrimination. A comprehensive reform of social policy, setting transparent and verifiable criteria also for potential beneficiaries, should be complemented by measures to increase intra- and intergenerational mobility[214] and policies to desegregate, deinstitutionalise and/or reintegrate the most vulnerable groups and individuals in society.[215]

Despite the epidemic and rising prices, the financial situation of poorer households has remained more stable than the EU average and has been worsening from autumn 2022, but less than the EU average. The share of households unable to cover unexpected costs at the poverty risk threshold in 2021 was lower than the EU average and improved more than the EU average in comparison to 2019 (Figure 56, left). The financial situation of households worsened slightly in 2020–2022 due to the epidemic and rising prices amid the higher inflation during the energy crisis but remained better than in 2010–2017 and better than the EU average.

[211] It often does not reflect the actual material situation of the beneficiaries, leaving many in need without assistance or too late to receive it (MDDSZ, 2021).

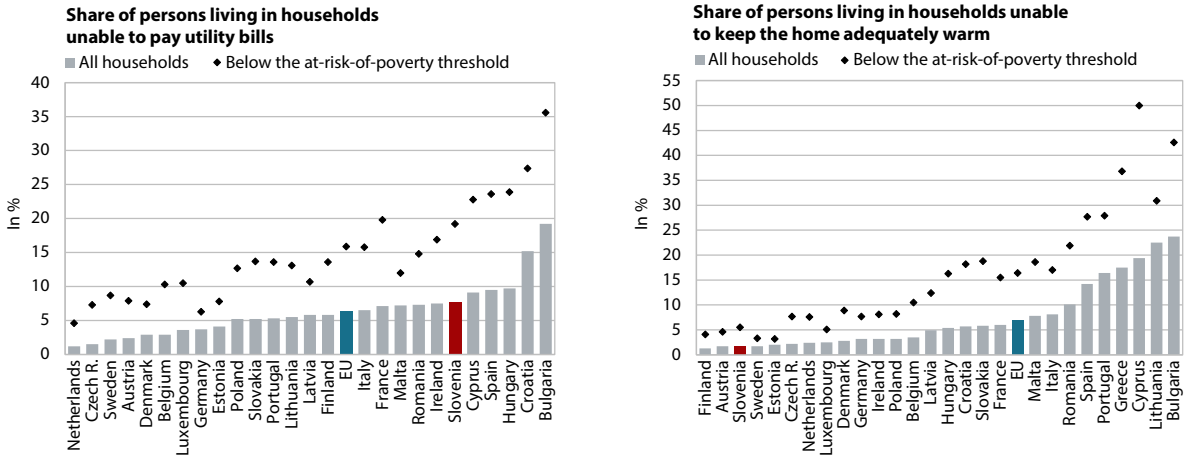
[212] In 2021 (the latest data available), the social work sector employed 2.2% of all employees in Slovenia, which is lower than the EU average (4.6). Scandinavian countries have the highest shares (more than 8%) (Eurostat, 2023).

[213] As pointed out by various institutions (MDDSZ, 2021; Court of Audit of the Republic of Slovenia, 2021; Human Rights Ombudsman, 2022; Korpič-Horvat et al. 2022).

[214] Intragenerational mobility is the ability of a person to move between socioeconomic classes within their lifetime, while intergenerational mobility is the ability of a family to move on the socioeconomic ladder in one or several generations (Eurofound, 2021c; OECD, 2018a).

[215] In particular, the desegregation of Roma children in settlements where the proportion of children who have completed primary school is still negligible. Deinstitutionalisation of care and protection for the elderly, disabled and other persons with impairments, refugees, asylum seekers and international protection seekers and their immediate integration into all aspects of economic, social, cultural and social life; reintegration of the erased, homeless, addicts, etc., who remain on the margins of society. For the latter group, only estimates of the number of persons are available, and they are also not included in the statistics (see IMAD, 2021a).

Figure 57: Arrears with utility bills were more frequent than the EU average in 2021 (left), while problems with adequately heated housing were among the lowest in the EU (right)



Source: Eurostat (2023). Note: Break in the series for Luxembourg and Portugal and preliminary data for Poland. For Slovakia, the figure is for 2020 (left).

Despite rising prices, the share of households with financial distress in the lowest income quartile did not increase significantly in 2022, with government measures contributing significantly. By summer 2022, 34% of respondents in Slovenia reported having received financial support from the State, significantly higher than the EU average (19%) and 75% were satisfied with their financial situation at the beginning of 2023 (EU: 69%) (Eurobarometer, 2023a). Various surveys show that households' financial difficulties[216] have been increasing from autumn 2022 onwards and have been overcome by drawing on savings, and the share of households in debt is also increasing slightly, but both indicators remain below 2017 levels and below the EU average (Indicator 3.22).

Housing cost overburden and severe housing deprivation are prevalent in economically weaker households living in poor quality housing. The housing cost overburden rate[217] is relatively low in Slovenia due to the high share of owner-occupied housing. It is highest among people living in households below the at-risk-of-poverty threshold, as they are often housed in poor, energy-inefficient housing. People living in households below the poverty threshold, especially single persons with dependent children, are more likely than the EU average to be in arrears with utility bills.[218, 219] Rising energy prices also affect the inability of poorer households to afford adequately heated housing, which in Slovenia has been below the EU average for many years.[220] In 2020, as many as 30% of persons in households below the at-risk-of-poverty threshold lived in dwellings of poor quality,[221] which also contributed to higher energy expenses. Poor housing conditions are also one of the main causes of the high level of housing deprivation, which is among the highest in the EU (see Indicator 3.21). The quality of housing is gradually improving with energy renovation,[222] as shown by the latest data for 2022.[223] In 2021, the housing overcrowding rate[224] was relatively low in Slovenia (10.9%; EU: 17%) and, as a consequence, severe housing deprivation was also low,[225] the main cause of which remains the poor quality of housing. Overcrowded dwellings were mainly occupied by tenants, who pay rent at market price and households below the at-risk-of-poverty threshold, more often in urban than rural settings.

Energy poverty was reduced by a third between 2014 and 2021 and rose slightly in 2022 (based on 2021 income). The energy-poor households are those below the at-risk-of-poverty threshold who are at the same time (i) either in arrears with their housing costs and energy services, (ii) unable to afford adequately heated housing, or (iii) living in inadequate housing conditions. Since 2014, the share of energy-poor households has

[216] Households responding in the Consumer Opinion Survey that they have to draw on savings or run into debt to cover current expenses.

[217] The housing cost overburden rate is the percentage of people living in households where housing costs are higher than 40% of total household disposable income (Intihar, 2022).

[218] The data refer to arrears for heating, electricity, gas, water, etc. by persons in households in the last year before the survey due to financial difficulties of the household.

[219] The share of persons in all households with arrears was 7.7% (EU: 6.4%); the share of people in households below the at-risk-of-poverty threshold was 19% (EU: 15.9%); the highest share was in single-person households with dependent children (30%; EU: 23.5%) (Eurostat, 2023).

[220] The share of persons in such households increased from 1.7% in 2021 (EU: 6.9%) to 2.6% in 2022 (SURS, 2023h).

[221] They had problems with roof leaks, damp walls, foundations, floors or with cracked window frames or floors (Intihar, 2022).

[222] In addition to energy renovation, functional and, in some cases, earthquake-resistant housing renovation will continue to be needed (UIRS, 2021).

[223] The share of all households with poor-quality housing fell by 2 p.p. in 2022 (SURS, 2023h).

[224] The share of persons living in dwellings with an insufficient number of rooms with regard to the number, gender and age of household members (Intihar, 2022).

[225] The percentage of population living in the dwelling which is considered as overcrowded, while also exhibiting at least one of the housing deprivation: (i) poor housing conditions, (ii) having neither a bath, nor a shower in the dwelling, (iii) not having indoor flushing toilet for the sole use of their household, and (iv) considering their dwelling as too dark (Eurostat, 2023).

gradually but steadily decreased due to improvements in all factors affecting energy poverty.[226] The level was lowest in 2021 (6.5%), rising to 7.2% year-on-year in 2022 (Intihar, 2023a), as the share of households below the at-risk-of-poverty threshold and the share of households that were financially unable to afford adequately heated housing increased.

Housing affordability can be improved by increasing the supply of public rental housing, renovating and activating unoccupied and under-occupied housing. Housing affordability is poor in Slovenia due to the low supply of public rental housing and housing on the market, resulting in high prices of dwellings. The share of rented housing is growing slowly, standing at 9% in 2021.[227] Housing is less affordable to households with low income and young people, who leave their parents' household later than the EU average.[228] In addition to building new housing, the supply could be increased by renovating and activating unoccupied housing, which in 2021 comprised almost one-fifth of the entire housing stock; half of it was either old, built before 1945, or lacking a basic infrastructure element.[229] An unutilised source of housing supply and higher housing mobility are under-occupied dwellings.[230] In 2021, slightly over one-third of the population lived in such dwellings, which is near the EU average. 5,000 new public rental dwellings are planned to be built by 2026 and their positioning requires strategic consideration in line with the long-term development orientations of the regions and the country (see also Chapter 4). However, given the residential immobility that characterises Slovenian residential culture, it would be worth considering lifetime housing (Šeme and Kerbler, 2022) in the construction of new dwellings, which should take into account changing housing needs over the life course.

Life satisfaction remains well above the EU average and trust in people is higher than in previous years. At the beginning of 2023, 92% of respondents in Slovenia were satisfied with their life (EU: 83%) (Eurobarometer, 2023b), which is the highest share ever (Indicator 3.19), as in 2017 and 2019. The Slovenian Public Opinion Survey also shows high satisfaction with life (7.7 on a ten-point Likert scale, but with a slightly different methodology) (CJMMK, 2022) and EU-SILC 2021 (SURS, 2023h). Since 2014, trust in people has been increasing, but according to the latest data from 2020,[231] it was still lower than the average of the 19 EU Member States (CJMMK, 2022; ESS-ERIC, 2020). In 2020, 27% of respondents felt that most people could be trusted, which is the most in 2002–2020. Trust in people's honesty and their readiness to help was also higher. The majority of respondents (95%) had at least one person in their lives to talk to about personal matters, which is important with regard to social support and inclusion. Slightly more people than in previous years had frequent contacts with relatives, friends or co-workers (at least once a week) (see IMAD, 2022e).

Access to education is better than the EU average, but some groups still face serious barriers. *Participation in early childhood education and care* in 2021 increased for children under 3 and decreased for children aged 3 and over, but both remain above the EU average. The inclusion rate for children at risk of social exclusion remains low and the gap in inclusion between these children and the rest of the population is larger than the EU average (EC, 2022h). *The participation in basic and upper secondary education* has been above the EU average for many years; however, some groups face various barriers to their participation (see Section 2.1). Children and young people who have poorer learning conditions at home[232] drop out of school early;[233] many also faced additional barriers due to the temporary closure of schools during the COVID-19 epidemic (Advocate of the Principle of Equality, 2021a). The accessibility of tertiary education is ensured by tuition-free study in the first and second cycles and a favourable ratio between the number of available places and the number of applications in higher education programmes; still, young people without tertiary-educated parents are less likely to go to university (Educational Research Institute, 2021). Adult participation in education rose sharply in 2021 after years of decline (see Section 2.1), but just over 30% of adults (EU: 36%) consider access to education to be insufficient (Eurofound, 2022a). E-learning boomed during the epidemic but has remained inaccessible to populations that are on average less well equipped with ICT equipment and have poorly developed digital skills.

Leisure activities remain less accessible to the population than before the epidemic; volunteers do more hours of volunteer work than in the majority of EU Member States. In 2015 and 2016, the share of the population[234] that did not have access to leisure activities fell considerably and remained at more-or-less the same level in 2016–2020 (around 45%). After increasing in 2021, it decreased again in 2022 but still stood at 57%, which was higher than before the epidemic. For some

[226] The share of households in arrears with housing costs fell by around two-thirds, the share of households living in inadequately heated housing fell by half, the share of households living in inadequate housing conditions fell by 41% and the share of households below the at-risk-of-poverty threshold fell by around 2%.

[227] The actual share of rental housing is probably higher than official statistics due to unregistered renting.

[228] In 2021, the average age was 29.6 years (EU: 26.5 years) (Eurostat, 2023).

[229] Around 27,000 unoccupied dwellings did not have a house number, which is a basic condition for registering a residence. These included about 12,000 one- and two-dwelling houses built after 1970, which had all the basic infrastructure (i.e. toilets, bathrooms, heating, electricity and water supply) (Miklič, 2022).

[230] An under-occupied dwelling is too large for the needs of the household members living in it (Eurostat, 2023).

[231] The European Social Survey was, due to the epidemic, conducted in two stages: from 18 September to 19 October 2020 and from 1 June to 31 August 2021 (CJMMK, 2022).

[232] 11% of children from households below the at-risk-of-poverty threshold and 3% of children from households above the at-risk-of-poverty threshold did not have adequate space to study or do homework in 2021 (SURS, 2022d).

[233] 2.5% of 15-year-olds in 2020 (EU: 2.9%) (Eurostat, 2023). The indicator is a criterion of educational poverty (EACEA and EC, 2022).

[234] The indicator measures the share of the population aged 16 years or older who have no access to leisure activities.

population groups (low-educated, unemployed and pensioners), these activities are harder to access. In 2021, 90% of households with children could afford to spend at least one week of holiday a year away from home (for financial and other reasons), similarly to 2014. The affordability of holidays increased in all income groups, but 9% of households on the lowest incomes could not afford a holiday (SURS, 2023h). Volunteering makes an important contribution to improving the quality of life of citizens, but volunteering experiences also have an impact on volunteers and their social environment. Slovenia's share of the population who regularly perform unpaid volunteer work exceeds the EU average.[235] The volume of voluntary work was also relatively high during the epidemic compared to other EU Member States (Eurofound, 2020).

According to international data from 2019, exposure to various forms of discrimination in Slovenia was among the lowest in the EU. However, the data of the Advocate of the Principle of Equality show that it increased in 2017–2020. Long-term exposure to discrimination has a negative impact on the discriminated person or group and can lead to social exclusion; it increases the costs of healthcare services, contributes to the neglect of available resources, and reduces productivity and social well-being (Kogovšek and Petković, 2007). According to an international survey, in 2019, 9% of respondents in Slovenia (EU: 16%) experienced discrimination or harassment (Eurobarometer, 2019a). National surveys, which are not comparable to international ones, recorded a rise in discrimination in 2017–2020[236] (see Indicator 3.17). Greater exposure to discrimination is related to the situation during the COVID-19 epidemic and the measures to contain the virus. These disproportionately affected vulnerable groups that were already disadvantaged due to a personal circumstance (children from vulnerable families, older people, Roma, non-nationals, people with disabilities, socially disadvantaged people, women and other groups) (Dalli, 2021; ECRI, 2021; Marouda, 2021; Šimonović Einwalter, 2021; Advocate of the Principle of Equality, 2021c).

Domestic and partner violence is more often experienced by women and often remains unreported. Any violence, be it physical, sexual, psychological or/and economic, is a violation of the victim's human rights, dignity and, at worst, the right to life (EC, 2021a). In Slovenia, 22.5% of women and 16.3% of men have experienced physical (including threats) or sexual violence since the age of 15 (SURS, 2023h).[237] Men most often experience violence in a public space and women at home, which has significant consequences for the victims.[238] Almost a third of women (28%) and a fifth of men (20%) have experienced violence in a partner relationship.[239] Women are more likely than men to be victims of recurrent violence of this kind and to report physical injuries and psychological consequences as a result of the violence (Kontelj, 2022). According to the most recent international data available, fewer women experienced violence from their partners in Slovenia than the EU average.[240] Women are also three times more likely than men to experience domestic violence.[241] This is a serious and often long-term and hidden social problem and one which has a negative impact on the emotional, economic and social well-being of the entire family (EP, 2021). Due to the changes in the way of life during the COVID-19 epidemic, many countries reported an increase in the number of domestic violence cases (EC, 2021a; IMAD, 2021a). There were more criminal offences of domestic violence in 2020 than before the epidemic, but in 2021 and 2022, fewer domestic violence cases were reported, though the number of female victims of crime (domestic violence and sexual violence) was again significantly higher than the number of male victims (Police, 2022c). The rate of reporting violence to the police and other institutions is low in Slovenia, as the violence and its consequences are dealt with by victims themselves or with the help of friends and family. Violence is still seen as a private matter (FRA, 2014, 2020; Kontelj, 2022), so the data recorded by the authorities often do not reflect the actual scale of violence in the country (EIGE, 2021).

[235] 34% of respondents (EU: 32%) performed unpaid volunteer work, 12% of them on a regular basis (EU: 10%) (Eurofound, 2016b).

[236] In 2020, 22% of the respondents reported discrimination, which is 5 p.p. more than in 2017 (Advocate of the Principle of Equality, 2017, 2021d).

[237] Data from the 2020 Gender-Based Violence Survey (SURS, 2023h).

[238] Incidents at home often occur without the presence of other people or solely in the presence of children, who are thus also made victims of the violence (FRA, 2021; IMAD, 2022e; EC, 2022a).

[239] 26.3% of women and 19.7% of men experienced psychological violence from a partner, 13.4% of women and 4.2% of men experienced physical (including threats) or sexual violence, and 5.7% of women and 3.8% of men experienced economic violence (SURS, 2023h).

[240] According to 2012 data, 13% of women suffered physical and/or sexual violence from their partners (EU: 22%) and 34% psychological violence from their partners (EU: 43%) (FRA, 2014).

[241] 14.9% of women and 5.3% of men have experienced physical violence including threats or sexual violence since the age of 15 (SURS, 2023h).

4 A well-preserved and healthy natural environment

After declining at the end of the last decade and especially in the first year of the COVID-19 epidemic, greenhouse gas (GHG) emissions, energy and natural resource consumption, and waste generation increased again in 2021 (latest available data). Amid significantly lower economic activity in the crisis years of 2009 and 2020, the 2020 targets for emissions and energy consumption were met and even exceeded. However, the target for the share of renewable energy in total energy consumption, which has grown at the slowest rate of all EU Member States since 2005, was not met. Productivity growth in relation to GHG emissions and energy consumption, which accelerated slightly in the periods of economic growth and the epidemic, continued in 2021 due to higher economic activity. Resource productivity, which fluctuates from year to year depending on construction activity, remained roughly at the previous year's level in 2021. All three productivity types observed remain below the EU average, most so for emissions and resource consumption (-13% and -10%) and less so for energy consumption (-8%). As the lag has not narrowed significantly in the long term, this will not be enough to meet the SDS sectoral targets, and the much more ambitious EU targets for 2030 and 2050 will be more difficult to achieve. The circular material use rate, which contributes to environmental goals and is a measure of the circular economy, also needs to be significantly improved in the face of higher commodity prices and supply difficulties. This also systematically reduces waste generation, which has increased again with the recovery of the economy after having decreased at the beginning of the epidemic.

Slovenia's insufficiently sustainable economy and way of life are also reflected in its relatively high and growing ecological deficit. As in most developed countries, natural resources are being depleted much more quickly than they can be replenished. The large share of protected areas, high forest cover and moderate farming intensity contribute significantly to mitigating this problem in Slovenia. On average, soil and water are still relatively well-preserved natural resources. Air quality, measured by the content of particulate matter, is more problematic, due to the inadequate combustion of wood biomass in individual heating systems and extensive construction activity and road traffic.

In 2022, the war in Ukraine led to new challenges that, in finding solutions to increase self-sufficiency in energy and resources, also open up new opportunities to accelerate the transformation of the economy and society towards a low-carbon and circular economy. As it is more difficult to ensure uninterrupted supply during an energy crisis, this may lead to a short-term increase in the use of fossil fuels. In the face of such unsustainable practices, the green transition needs to be accelerated significantly in other areas to catch up. Ensuring efficient use of all available resources is crucial, and given the urgency to accelerate the transition, additional systemic measures, supported by additional funding, are needed.

4.1 A low-carbon circular economy

A low-carbon circular economy (Development Goal 8):

The goal of the SDS 2030 is to break the link between economic growth and the increasing consumption of raw materials and energy and the associated high burden on the environment. Sustainable growth will be achieved primarily through radical changes in consumption and production patterns, including more efficient exploitation of resources, waste management and energy use with a higher share of renewable energy sources. This will also help reduce GHG emissions. The planned changes will be supported by education and integration, the promotion of environmental innovation, and, above all, the phasing out of fossil fuels. In addition, the SDS 2030 underlines the urgency of changes in transport in order to accelerate the development of sustainable mobility.

Performance indicators for Development Goal 8:

	Latest data		Target value for 2030
	Slovenia	EU average	
Resource productivity, in PPS/kg	2.1 (2021)	2.3 (2021)	3.5
Share of RES in final energy consumption, in %	24.6 (2021)	21.8 (2021)	27.0
Emission productivity, in PPS/million kg CO_2	3.8 (2021)	4.1 (2020)	EU average in 2030

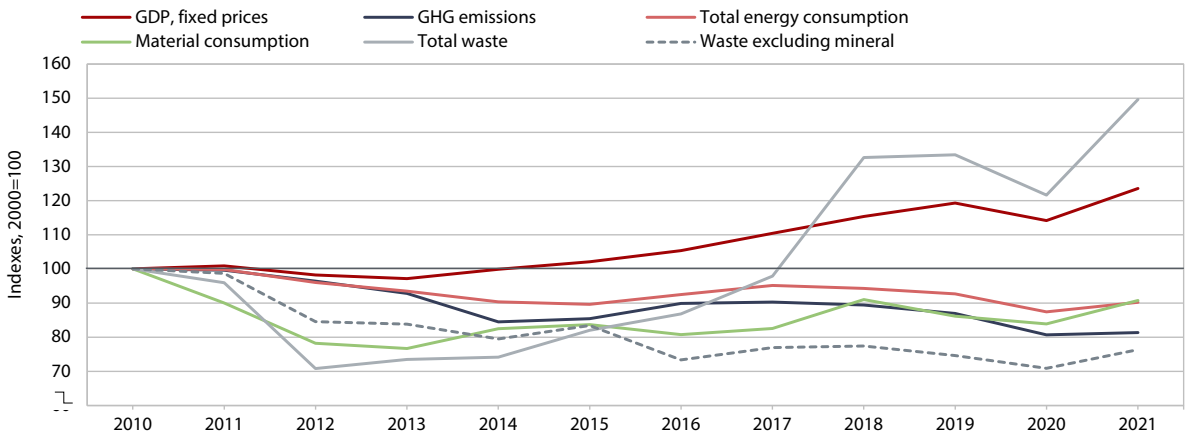
Greenhouse gas (GHG) emissions and the use of key natural resources and the resulting waste increased again after a decline during the COVID-19 epidemic; given the increase in economic activity, their trend of lagging behind GDP growth continued, but this needs to be accelerated to meet ambitious targets. The environmental dimension of economic development is typically analysed using indicators that show the ratio between economic growth and the resulting GHG emissions, energy, material and water consumption, and the resulting waste. After rising in the first years of the economic upturn following the global financial crisis, GHG emissions and resource consumption stabilised before declining as expected in the epidemic year 2020 and rising again in 2021 (latest available data), although their increase was less pronounced than that of GDP (Figure 58). The 2020 targets were met for emissions and energy efficiency, partly because economic growth was lower than assumed at the time of planning, while the increase in the share of renewable energy in final energy consumption was too low. Due to the delays and even more ambitious targets to address climate change, we need to catch up (MOPE, 2023a) and significantly accelerate the transition to a low-carbon circular economy in the coming years. The new geostrategic situation brought on by the war in Ukraine has opened up new challenges in 2022 related to eliminating dependence on Russian fossil fuels, which in turn opens up opportunities to accelerate the green transition and increase the resilience of the energy system, while striving for greater self-sufficiency within the EU (EC, 2022q; MOPE, 2023b). In the meantime, the energy crisis makes it difficult to ensure sufficient energy supplies and may lead to increased use of fossil fuels to avoid disruption. As this is a step in an unsustainable direction, the green transition must be accelerated in other areas. It is crucial to identify opportunities, innovate, reduce consumption and introduce new clean technologies while monitoring the success of development, adjusting policies and reallocating resources. If change is too slow or delayed, the green transition will become a much more difficult task (IMAD, 2022d).

After a decline during the epidemic, GHG emissions increased slightly in 2021, and emissions productivity has improved in recent years in both Slovenia and the EU, which means that the gap with the EU has not narrowed. In 2021, emissions increased by 0.8% (Indicator 4.1), but at the same time they were around 4% lower than in 2014, when they reached their lowest level in two decades.[242] In the EU ETS sectors,[243] they have continued to decline under the influence of the high costs associated with the purchase of allowances. In the non-ETS sectors, however, they increased due to a strong increase in transport activity (14%), after having decreased significantly in the previous year due to restricted activity during the epidemic. Transportation is the only activity where emissions have also increased over the longer term (by 18% over the period 2005–2021, to 32%), so measures to reduce emissions from this activity need to be designed with particular care (IJS, 2022). In road traffic, the use of fossil fuels, which is encouraged by the exemption from excise duty on fuels, is problematic

[242] The decrease in emissions in 2014 was mainly due to the shutdown of some large plants (Block 3 and Block 4 of Termoelektrarna Šoštanj d.o.o., HSE-Energetska družba Trbovlje d.o.o., and Lafarge Cement d.o.o.) and to a lesser extent to efficiency improvements (Court of Audit of the Republic of Slovenia, 2021b).

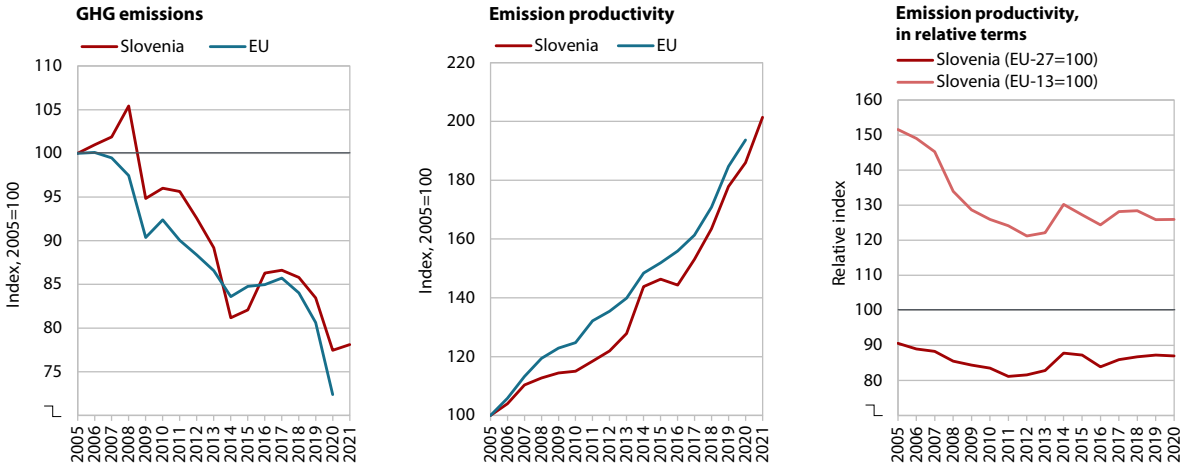
[243] The Emissions Trading Scheme, i.e. the EU ETS sectors, covers emissions mainly from energy, metals and non-metals activities. The companies involved receive or buy emissions allowances, which they can trade as needed. By assigning monetary value to carbon, businesses are encouraged to find the most cost-effective solutions to reduce emissions and invest in clean low-carbon technologies.

Figure 58: Following a decline during the COVID-19 epidemic, higher economic activity in 2021 led to a slight increase in GHG emissions, a slightly higher increase in energy and material consumption, and, above all, an increase in waste generation



Source: SURS (2023h); calculations by IMAD. Note: waste generated – excluding mineral waste – includes residual waste generated through incineration and treatment processes (Eurostat methodology).

Figure 59: GHG emissions in Slovenia followed a similar long-term trend as in the EU, as did emissions productivity; therefore there has been no significant progress in recent years in narrowing the gap with the EU and widening the lead over the group of new Member States (EU-13)



Source: Eurostat (2023). Note: A meaningful comparison in PPS with other countries can only be made for individual years and not for a longer time period.

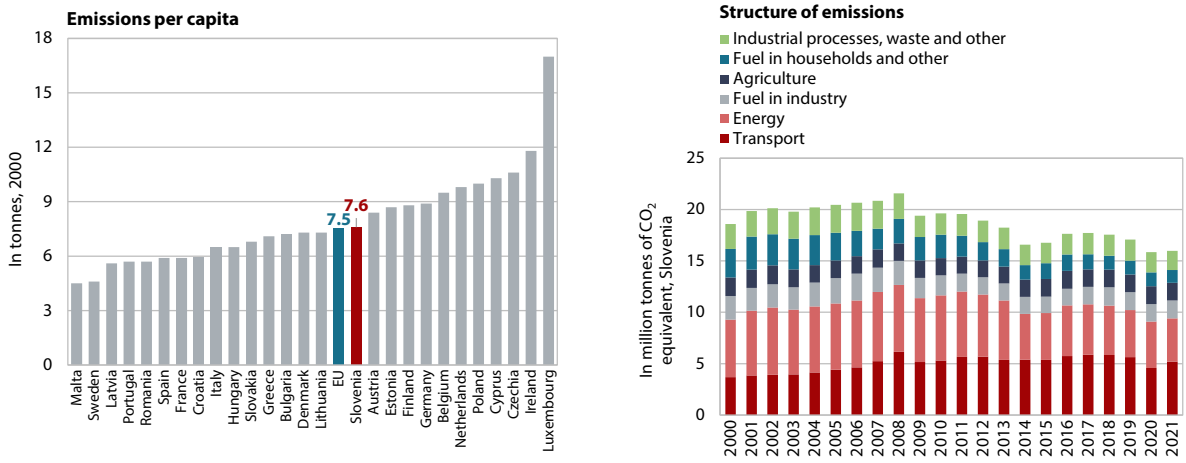
(IJS-CEU, 2022). The EU 2020 Strategy target that emissions from the non-ETS sector will not rise by more than 4% (European parliament and Council of the EU, 2009) over the period 2005–2020 was exceeded. These emissions fell by about 17% during this period, which was easier to achieve given that economic activity was lower than expected at the time of planning.[244] However, to achieve the more ambitious 2030 targets,[245] we need to increase the use of renewable energy and ensure more efficient energy use, while directing financial incentives for climate investments towards integrated and effective solutions (IJS-CEU, 2022; MOP, 2022a; IMAD, 2022d). According to preliminary estimates, total emissions also increased in the first half of 2022,[246] indicating that implementation of measures needs to be significantly strengthened (MzI, 2022). This is also evident from the changes in *emissions productivity* (calculated as GDP per unit of GHG emissions), which improved slightly in 2021, but the gap with the EU average has remained unchanged for several years (13%). Therefore, in order to reach the SDS target in this area, i.e. to reach the EU average in 2030, all available financial resources should be used effectively and the link between economic development and emission reduction measures should be systematically promoted.

[244] As Slovenia met its climate target, more than 11 million units of annual emission allocations are expected to remain unused in the Union Registry. Slovenia can sell them to another country that needs them to meet its target. Malta purchased them from Bulgaria at the price of about 1 EUR/unit (MOP, 2022c).

[245] The NECP (Government of the RS, 2020) set targets for Slovenia to reduce total emissions by 36% by 2030 compared to 2005, with emissions in the non-ETS sector reduced by at least 20%, but these targets need to be tightened.

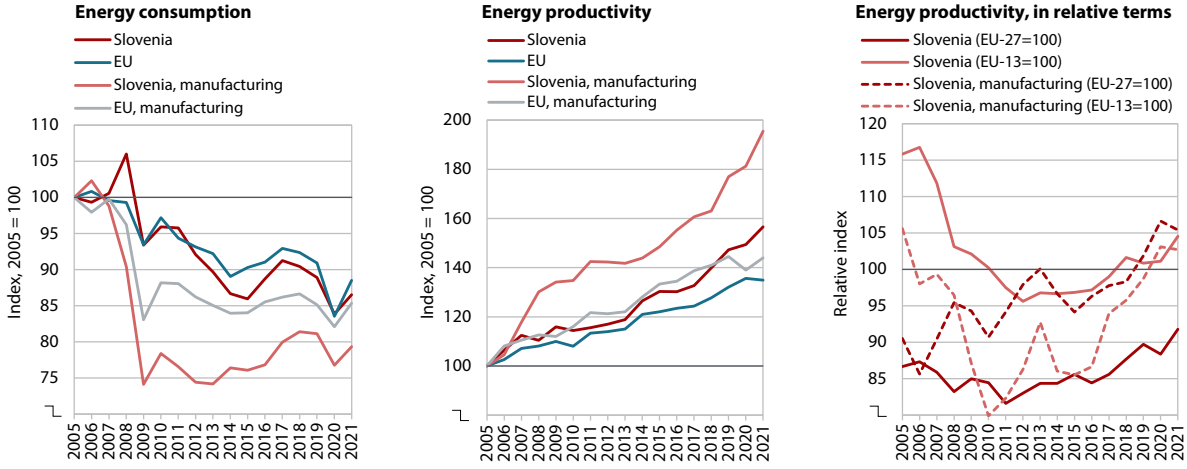
[246] According to quarterly estimates, they increased by around 9% year-on-year in Slovenia and 3% on average in the EU (Eurostat, 2023).

Figure 60: Slovenia's per capita GHG emissions, which are close to the EU average, increased slightly after the epidemic due to increased transport activity



Sources: Eurostat (2023), ARSO (2022); calculations by IMAD. The assessment for 2021 is preliminary.

Figure 61: The decline in energy consumption in Slovenia in recent years has been similar to that in the EU, while energy productivity has increased faster in the context of higher economic growth, so that the gap with the EU average in 2021 was smaller than ever before



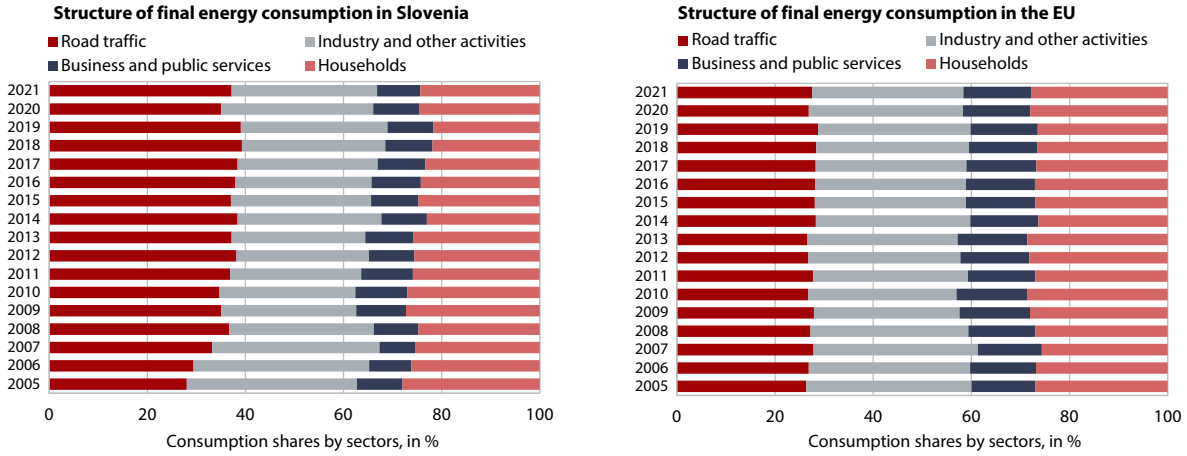
Source: Eurostat (2023); calculations by IMAD.

After declining during the epidemic, total energy consumption increased by about 3% in 2021 but, as economic activity was higher, energy productivity improved and the gap with the EU average narrowed to an all-time low. The 2020 *energy efficiency* targets for primary and final energy consumption[247] were met and exceeded, but these were easier to achieve in the context of low activity during the global financial crisis and recent epidemics. In 2020, primary energy consumption was approximately 14% below the target value, which means that the target was fairly exceeded (Indicator 4.2). In the crisis years 2009 and 2020, it fell by 12% and 6% respectively year-on-year, thus contributing significantly to the achievement of the target. *Energy use for heating* has been reduced in the long term through more economical use, energy renovation of buildings, increased efficiency of combustion installations and other efficiency-enhancing measures and also because of milder winters. In 2021, the consumption of heating oil and wood increased. As COVID-19 restrictions had a particularly strong impact on transport, their easing the following year was reflected in a sharp increase in the consumption of liquid fuels (petrol by 14% and diesel by 16%).[248] *Energy productivity*, measured by the ratio of GDP to total energy consumption, only improved after 2017 (including in 2021, the last year for which data is available), as a result of the relatively lower GDP growth since the global financial crisis. In recent years, significant progress has been made in the manufacturing sector,

[247] Final energy consumption means primary energy consumption excluding energy used in transformations, energy sector and excluding losses.

[248] We estimate that there were no significant changes in energy consumption in 2022, although the structure changed slightly (increased consumption of fuel and wood and lower consumption of hydropower, coal and gas) (Indicator 4.2).

Figure 62: The share of final consumption of energy in road transport remains high, while final consumption of energy for business and public services remains low



Source: Eurostat (2023); calculations by IMAD.

where energy productivity is already higher than in the EU.[249] The reduction in energy consumption would have been much more effective if *energy consumption in road transport* had not increased significantly in the years preceding the global financial crisis due to Slovenia's transit position in the enlarged EU. It then remained high until 2021, despite fluctuations (which contributed to the growth of GHG emissions). In some years, this was further stimulated by the lower price of motor fuels compared to neighbouring countries. Slovenia's energy productivity gap with the EU has narrowed again to less than 10% in 2021, the smallest gap since 1995.

Within a few years, the share of renewable energy sources (RES) will lag behind the EU average and the targets set, unless radical changes are made, as the increase in the use of RES since 2005 has been the smallest among all EU Member States. In 2021, the share of RES in final energy consumption increased by 0.5 p.p to 24.6%. As this meant that for the second year in a row the mandatory target of 25% was not reached, the missing share had to be made up by a statistical transfer from another EU Member State that had exceeded its target.[250] Over the period 2005–2021, the share increased by 5 p.p., compared to the average increase of 12 p.p. in the EU as a whole. After being above 22% in 2013–2015, it remained roughly unchanged until 2019, rising to around 24% in the first year of the epidemic (Indicator 4.3), which was related to lower consumption of liquid fuels during the epidemic rather than increased use of RES. In Slovenia, the use conventional RES, i.e. wood and hydropower, is most widespread, while the share of other RES use is the lowest among all EU Member States. Wind energy is hardly exploited in Slovenia at all, whereas in the EU as a whole it already accounts for almost 16% of total RES consumption and even exceeds the use of hydropower. The increased consumption of solar and geothermal energy has been the main contributor to RES growth since 2009[251] (their shares each accounted for around 5% of total RES in 2021). After 2005, the share of RES in the *electricity sector* increased by 6 p.p. to 35% (EU: +21 p.p. to 38%) and in the *heating and cooling sector*[252] by 9 p.p. to 35% (EU: +11 p.p. to 23%). This share is relatively high due to the high use of wood, which is also the main reason for the increase in the total share of RES in 2021. In the *transport sector*, it increased by 10 p.p. to 11% in this period, exceeding the 10% target (EU: +7 p.p. to 9%).[253] An immediate shift to green energy investment is urgently needed if we are to increase the use of RES and reach the SDS target.[254] Since natural conditions are favourable, such as extensive hydropower and wind power potential, it is important to catch up on development and find acceptable solutions when prioritising the siting of individual energy facilities (MOPE, 2023b).

The volume of transport, which has a major impact on the environment, increased again after the COVID-19 epidemic and long-term sustainable solutions are becoming increasingly urgent.

[249] In energy-intensive manufacturing companies, the burden of energy costs on business revenues was also heavily reduced in the period 2008–2021, from 8.4% to 5.8% (IMAD, 2022d).

[250] Slovenia met the mandatory target by purchasing the missing share of energy from RES from another EU Member State through the Statistical Renewable Energy Transfer Mechanism (RESSTM) (MOPE, 2022b, 2022a). For both years, agreements were concluded with the Czech Republic in the amount of approximately EUR 5 million in 2020 and EUR 2 million in 2021. The administrative purchase did not represent an additional energy gain, but was a prerequisite for the further absorption of cohesion funds in the current period.

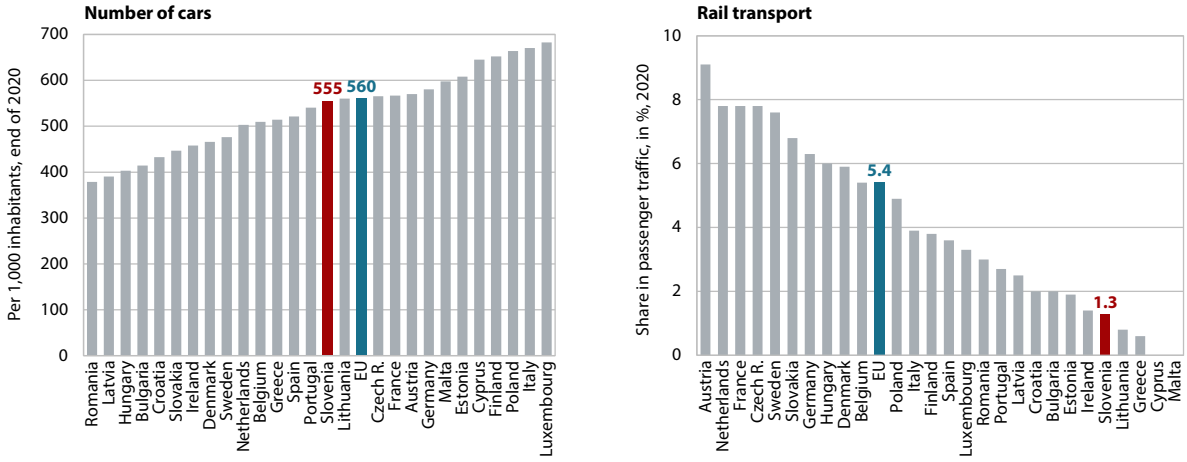
[251] The highest increase in the share of RES was recorded in 2009, due to the crisis and lower overall energy consumption, while at the same time the decrease in RES consumption was not as marked.

[252] The use of RES for electric heating is included in electricity generated from RES and not in RES for heating.

[253] It was only in the last three years that the share of biofuels in transport increased sharply, as at 2.6% in 2017, it was almost three times lower than in the EU overall.

[254] Slovenian energy companies plan to invest at least EUR 4 billion in green energy in the period 2021–2027. Most of the projects are being developed for renewable energy sources, which also include the reduction of GHG emissions, for the introduction of low-carbon technologies, smart grids, electric mobility and energy efficiency (Energy Industry Chamber of Slovenia, 2021).

Figure 63: Slovenia is around the EU average in terms of the number of cars per capita, but the share of rail passenger transport in total passenger transport is right at the tail end of the Member States



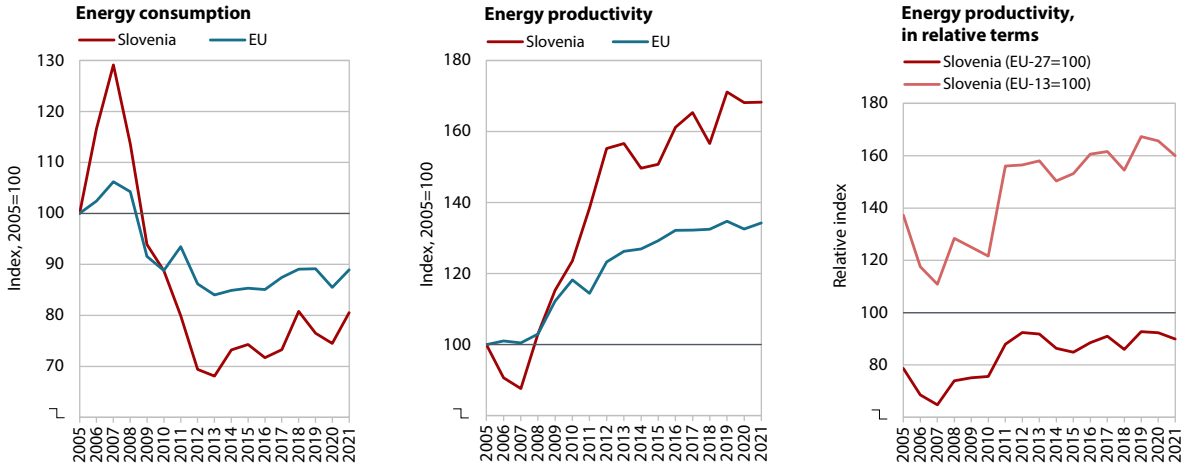
Source: Eurostat (2023); calculations by IMAD. Notes: (i) Figure on the left: Austria 2018; (b) Figure on the right: the indicator refers to travel within the country.

In Slovenia and the EU, most goods are shipped with lorries and most passengers travel by car, which are both the least environmentally friendly modes of transportation. Moreover, due to Slovenia's transit position, total *freight transport* is high and has even increased, in particular in the middle of the previous decade (Indicator 4.4). Per unit of GDP, it increased by 12% in 2010–2020 (it remained unchanged in the EU on average). In per capita terms, much more goods are transported than in the EU overall. Rail freight transport stands out in the structure with its relatively high share (35% in Slovenia in 2020, 17% in the EU). In *passenger transport*, the share of rail and other public transport is low (accounting for 9% in Slovenia in 2020 and 13% in the EU), while the share of transport by car is high. In 2020, as part of the efforts to contain the COVID-19 epidemic, public passenger transport was restricted much more than private car transport, which meant that the share of public passenger transport in total transport fell significantly (by about 5 p.p.). The low share is partly due to the lower degree of urbanisation and greater settlement dispersion and, in particular and increasingly, to the outdated and poor public passenger transport service.[255] In intercity transport, car sharing is on the rise and contributes to a lower environmental impact and at the same time to lower costs for households. As it is crucial to achieve sustainable, smart and resilient mobility (EC, 2020g), significantly more attention needs to be paid to (i) implementing measures to reduce greenhouse gas emissions from all modes of transport, (ii) achieving seamless, safe and efficient connectivity, which will have a positive impact on transport time and costs and on the reliability and safety of transport, and (iii) mobility in a single European transport area to help the industry recover from the COVID-19 epidemic and make it more resilient in the face of future crises. The vision for the development of Slovenia's rail network (MzI, 2021) envisages new high-speed lines to achieve higher standards and more competitive travel times to accelerate the shift of passengers from road to rail.

Resource productivity, one of the key indicators of a sustainable economy, improved during the global financial crisis due to lower resource consumption in construction but has been largely stagnating in recent years. In Slovenia, changes in resource productivity, calculated as the ratio of GDP to raw materials and materials consumed, are strongly impacted by construction activities and the related consumption of non-metallic minerals. In the structure of resource consumption, the share of construction materials is relatively high by international comparison. In 2007–2012, resource productivity grew faster than in the EU on average, mainly due to a sharp decline in construction activity after the completion of the motorway cross and the global financial crisis. In the following years, the gap to the EU average has remained practically unchanged. In 2021, however, the use of non-metallic minerals (especially sand and gravel) again increased sharply, which significantly increased the total consumption of resources. Amid higher economic activity, this did not translate into a decline in productivity, but the gap with the EU has widened slightly again to around 10% (Indicator 4.5), the level it has been at for the last decade (Figure 64, right). We estimate that resource productivity did not change significantly in 2022 as increased consumption of liquid fuels, wood and non-metallic minerals was followed by moderate GDP growth. It is expected that the planned implementation of major construction projects, such as the construction of railway infrastructure and the third development axis, will again lead to lower resource productivity growth. Much more attention therefore needs to be paid to

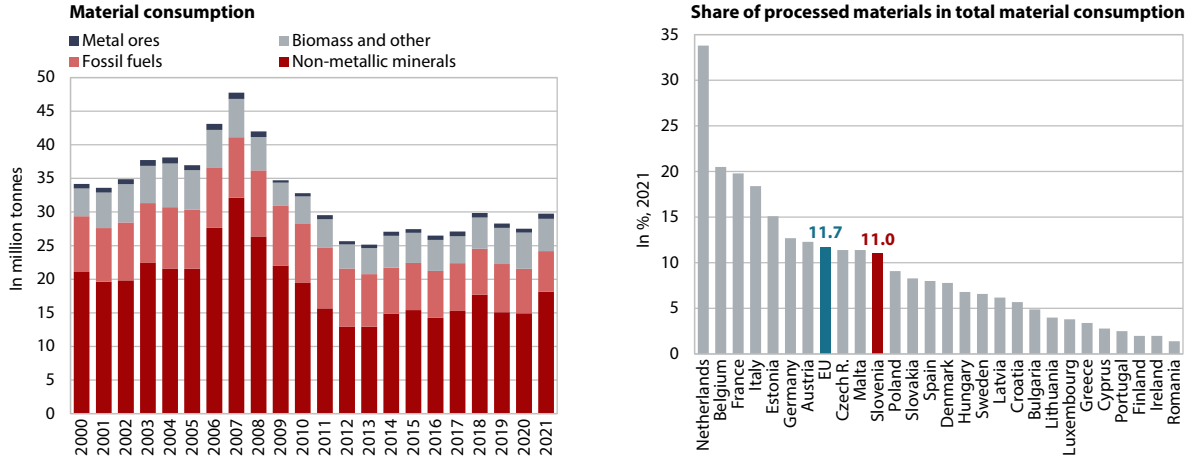
[255] According to an analysis by the International Consumer Research Institute (2022), bus connections in the 15 Slovenian towns and cities studied, with a total of around 100 lines, are poor and unsatisfactory. Public transport is not user-friendly, especially for new users. The lines run too infrequently, at irregular intervals and have complicated operating routes. Ljubljana and Maribor do not have a strong public transport backbone and there are only four city lines in Slovenia that run on average every 20 minutes or more often (two in Piran, one in Koper and one in Škofja Loka).

Figure 64: In the longer term, the decline in material consumption in Slovenia has been more marked than in the EU and resource productivity has improved significantly, but the gap with the EU has not changed much over the last decade



Source: Eurostat (2023); calculations by IMAD.

Figure 65: Material consumption,* which declined significantly in 2007–2012 after the completion of the motorway cross and as a result of the global financial crisis, has since increased slightly (left); the share of recycled material needs to be increased significantly (right), as in most other EU Member States**



Sources: SURS (2023h), Eurostat (2023); calculations by IMAD. Note: * Material consumption is defined as domestic extraction plus net imports of materials. ** The share of recycled material is the ratio between the amount of processed waste used and the total amount of material and waste used.

the planned recycling measures in order to achieve the goal of bringing material productivity closer to the EU average (SDS 2030 target).

After a one-year hiatus, the increasing trend of waste generation continued in 2021, and a systemic approach to increasing the reuse of waste in the circular economy will be key to the urgent reduction of waste generation. Total *waste generation* increased by an average of one-tenth per year over the period 2012–2019. This trend was interrupted during the COVID-19 epidemic, but in 2021 the amount increased again (Indicator 4.6). Overall, about 23% more waste was generated than in the previous year, with waste generated from activities increasing by about a quarter and municipal waste by about 6%. In terms of structure, the increase in construction and manufacturing activities led mainly to an increase in mineral waste[256] and, to a lesser extent, in other waste, so that waste, excluding mineral waste, per unit of GDP decreased slightly. *Waste management* has improved considerably in recent years. The share of recycled waste increased, while the share of disposed waste, which is the least desirable form of waste treatment, decreased. Slovenia has one of the highest shares of recycled waste, excluding mineral waste, among EU Member States (85% in 2021). A systemic shift of production towards a circular system is desirable in order to reduce the consumption of primary raw materials, which are in short supply in

[256] Mineral wastes are mainly soils and rocks generated by excavation in the construction industry. Their share in total waste is relatively large due to their weight. It was 73% in 2021 and continued to rise in 2022 as the amount of this waste increased by two-thirds with the high level of construction activity, according to an initial estimate (SURS, 2023c).

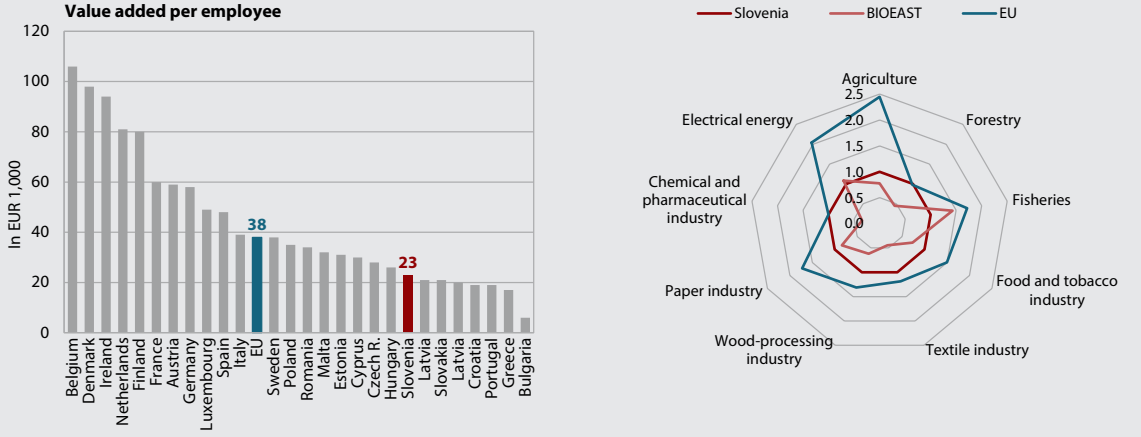
Box 4: The bioeconomy as an untapped potential in sustainable development

The bioeconomy encompasses the production of renewable biological resources and the conversion of these resources into food, feed, bio-based products and bioenergy (EC, 2012, 2019, 2022l). It includes all activities and related services and investments that produce, use, process, distribute or consume biological resources,[1] including ecosystem services.[2] The significant strengthening of the bioeconomy in recent decades coincides with the global financial and climate crises. The vulnerability of an economic system focused on growth based on the use of non-renewable resources and the unsustainable use of renewable resources has been exacerbated by new unforeseen events (geopolitical pressures and the energy crisis).

The EU has identified the (circular) bioeconomy in a broad sense of the economic paradigm as one of the responses to the new challenges and its development as a cornerstone of the Green Deal. The Bioeconomy Strategy (EC, 2012, 2019) has set objectives that reflect the synergy effects of bioeconomy development on the economic, social and environmental aspects of development: (i) ensuring food security, (ii) managing natural resources sustainably, (iii) reducing dependence on non-renewable, unsustainable resources, (iv) mitigating and adapting to climate change, and (v) strengthening European competitiveness and creating jobs. Most EU Member States have a dedicated bioeconomy strategy, while some countries, including Slovenia, address these development issues within the framework of other strategies and programmes.[3]

Slovenia has a huge raw material potential and vast opportunities in all areas of the bioeconomy. In forestry and the wood processing industry, this applies in particular to the use of low-grade wood, by-products and residues from the wood processing industry, logging residues, and recovered wood. Biomass waste and by-product streams from agriculture and the food-processing industry are also of commercial interest (Juvančič et al., 2021). In Slovenia, the contribution of the bioeconomy to total value added in 2019 was above the EU average (6.4%; EU 5.2%), while labour productivity was extremely low, especially compared to EU Member States classified as having a more advanced bioeconomy (EC, 2019; Juvančič et al., 2021; Juvančič, 2022). In addition to improving production processes to achieve higher productivity, understanding the biological processes at the molecular level that enable the conversion of bio-based feedstocks into a wide range of environmentally acceptable and economically viable bio-based products and energy is key to accelerating the development of these activities. Opportunities exist in particular in the food chain, the pharmaceutical industry, the production of industrial enzymes, adhesives and lubricants, machinery components, packaging, textiles, construction materials, etc. Promoting the involvement of all stakeholders, developing an enabling environment and greater involvement in EU-level processes are crucial. On the demand side, green public procurement[4] needs to be strengthened, which, in addition to the direct impact on public spending, also affects the purchasing behaviour of the population.

Figure 66: Labour productivity in the bioeconomy is much lower in Slovenia than in the EU (left), especially in agriculture and electricity generation (right), 2019



Source: Ronzon et al. (2022); calculations by IMAD. Note: The figure on the right shows the relative labour productivity gap between the EU-27 and the BIOEAST region on the one hand and Slovenia on the other. The BIOEAST region consists of 11 Central and Eastern European countries (Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia).

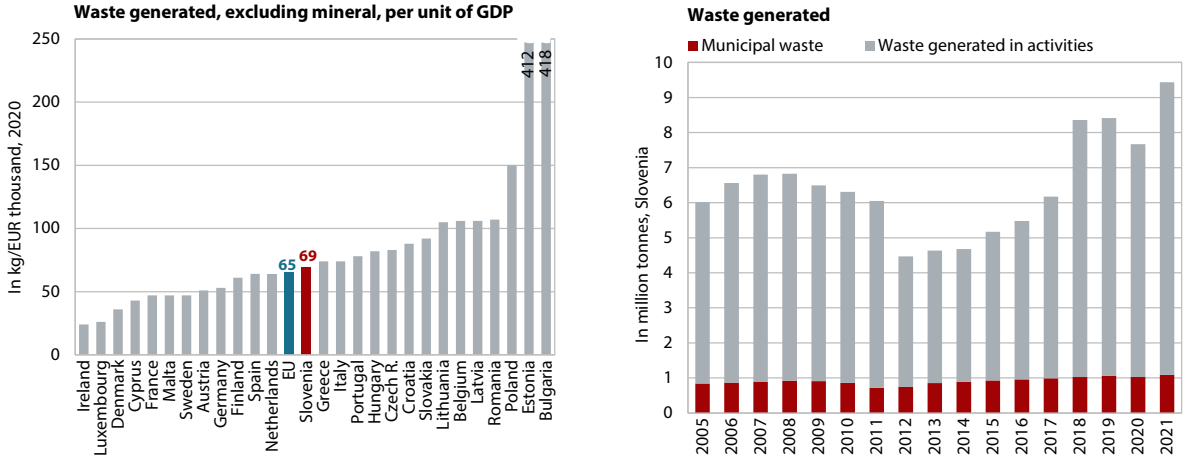
[1] The Joint Research Centre of the EC (Ronzon et al., 2022) identifies 16 bioeconomy sectors that can be divided into three groups: primary sectors where biomass is produced (agriculture, forestry and fisheries); manufacturing sectors where biomass is the key raw material (manufacture of food, beverages and tobacco products, manufacture of wood and wood products, and manufacture of paper); and manufacturing sectors where biomass and its components can be the source of raw materials (manufacturing of textiles, clothing, leather, chemicals and chemical products, basic pharmaceutical products and pharmaceutical preparations, rubber and plastic products, furniture, and electricity).

[2] Ecosystem services (ES) are the contributions ecosystems provide for humans and society, and in most cases both the benefits and the costs of providing them are not (fully) recognised by the market. In general, we distinguish between provisioning services (e.g. food, water, raw materials and energy), regulating services (e.g. air circulation, erosion and landslide protection, biodiversity, carbon sequestration, water purification and pollination) and cultural services (e.g. the provision of cultural landscapes, space for recreation and the dissemination of knowledge) (Millennium Ecosystem Assessment, 2005).

[3] In Slovenia, these are e.g. SDS 2030, the CAP after 2023, RRP, the Smart Specialisation Strategy, the Vision of Slovenia 2050 and the National Environment Protection Action Programme 2020–2030.

[4] Public expenditure in EU Member States on the purchase of goods, construction and services in the bioeconomy accounts for about 19% of GDP (Juvančič, 2022).

Figure 67: The amount of waste, calculated per unit of GDP and excluding mineral waste, which in Slovenia is about the same as the EU average, increased again in 2021 after a decrease during the COVID-19 epidemic



Sources: Eurostat (2023), SURS (2023h). Note: The reported fall in waste generated in 2012 in Slovenia was the result of (i) a reduction in construction waste and (ii) a revised methodology: some waste categories have been reclassified as by-products.

nature due to their limited availability and the costs of which are rising. One possible incentive for producing less waste or its increased reuse may be to include waste incineration in the greenhouse gas emissions trading scheme (EU ETS). As this would incur additional costs in activities, incineration would become more expensive than recycling and, as a result, only those waste residues that could not be used in any other way would be used as an energy source (Warringa, 2021). A particular problem is food waste, also due to its increasing volume.[257]

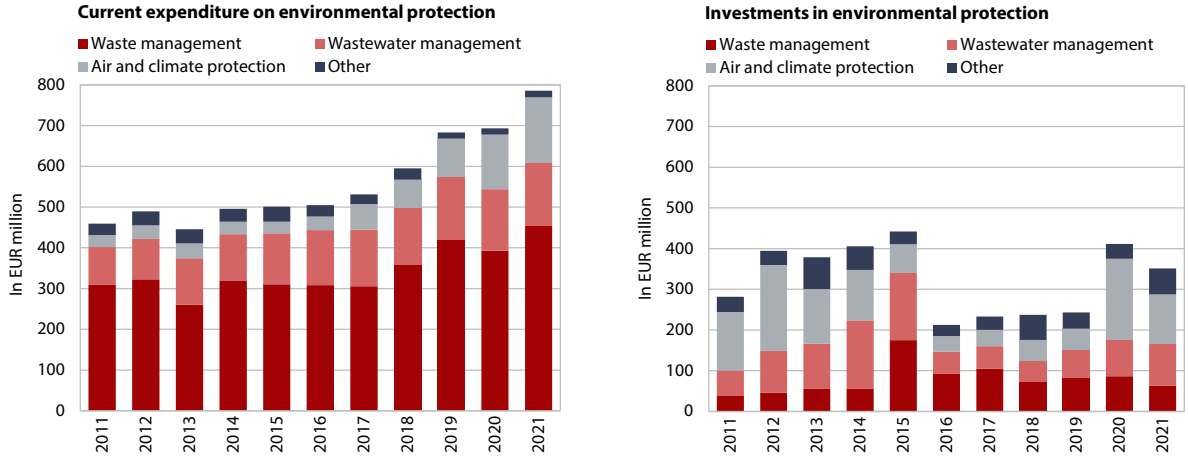
Funding for environmental protection had increased since 2016 and mainly went to waste management, but growth slowed in 2021 due to lower investment.[258]

Total current expenditure on environmental protection, which is increasing over the long term, increased by 13% in 2021, to around EUR 790 million. More than half, about 57%, was devoted to waste management. Most current expenditure was incurred in the Osrednjeslovenska region, this around 30%, followed by the Podravska and Savinjska regions, where expenditure on environmental protection reached the highest share of regional GDP, at about 3%. In 2021, EUR 351 million was earmarked for *total investments in environmental protection*, which is 15% less than in the previous year and slightly above the average of the last decade, but below the average of the period of investment growth in the first half of the decade. In particular, investments in air and climate protection decreased and accounted for 35% of total investments in environmental protection, while investments in wastewater management increased to 30% of total investments. Similar to expenditure, most investments, about 43%, were made in the Osrednjeslovenska region. The Posavska and Zasavska regions stand out in terms of

[257] In the period 2013–2021, the statistically recorded annual amount of food waste in Slovenia increased by 21% to 68 kg per capita. According to the SURS estimate, 60% of generated food waste was inedible parts, e.g. bones, peels, eggshells and husks, which mostly cannot be avoided, while the remaining 40% were edible parts that could have been reduced or prevented through awareness-raising and a better attitude towards food. Most food waste was processed anaerobically in biogas plants (see also Box 5).

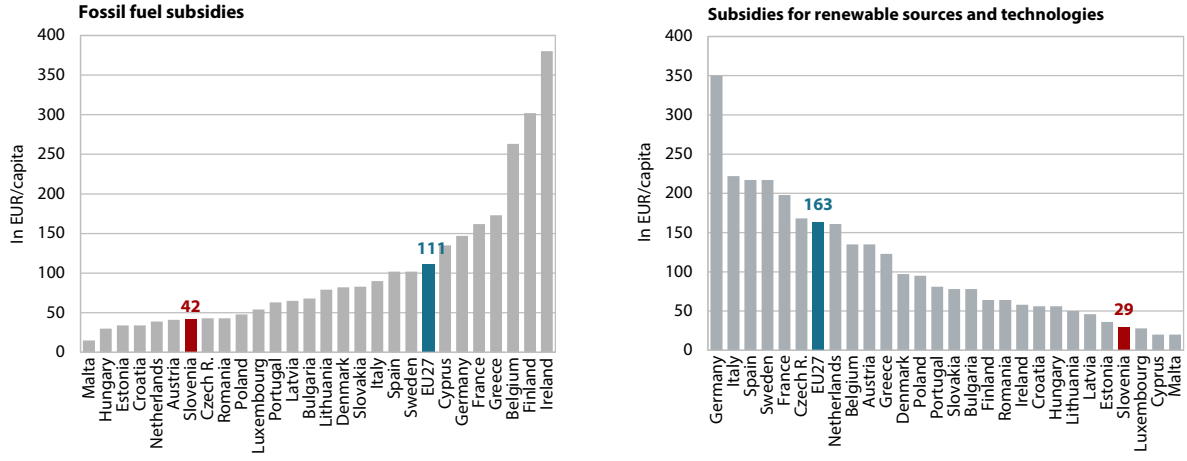
[258] SURS publishes all financial resources earmarked for the protection of the environment from pollution by environmental purposes: air and climate protection, wastewater management, waste management, protection and remediation of soil, groundwater and surface water, protection against noise and vibration, protection of biodiversity and landscape, protection against radiation, research and development, and other. The research involves companies and organisations that are registered for performing their activities and having at least 10 persons in paid employment. It includes resources from own resources, the national budget and EU funds, credits, and other sources of financing.

Figure 68: Current expenditure on environmental protection has been increasing in the long term and investment in environmental protection, which has been relatively low for several years, increased to previous levels in 2020 and 2021



Source: SURS (2023h); calculations by IMAD. Note: The evolution of investments is linked to the absorption of EU funds in each programming period.

Figure 69: In 2018, subsidies for fossil fuels per capita (left) in Slovenia were higher than subsidies for renewable sources and technology (right); both were among the lowest in the EU



Source: EC (2020a).

the share of investment in regional GDP (2% and 1.5% respectively), where this share is between two and ten times higher than in other regions.

Revenue from environmental taxes as a share of GDP decreased, but this is not conducive in terms of price signals to achieving the objectives of the green transition, which will require considerably increased financial resources in the coming years. While revenue from this source was 5% higher in 2021 than in 2020, its share in terms of GDP fell to its lowest level since 2000, to 2.8% (Indicator 4.7). Despite the nominal increase in 2021, it fell short of the 2019 level in nominal terms (by 10%), and according to preliminary data from the state budget, this was also the case in 2022. This reflects the decrease in the environmental tax burden over this period, in particular lower excise duties on energy, the abolition of the additional tax on motor vehicles and the abolition of the environmental tax on air pollution with CO_2 emissions in certain months of 2022. Although most of the revenue from environmental taxes is not earmarked for the green transition, such developments are not encouraging from the perspective of achieving long-term climate goals, as environmental taxes are an important price signal alongside other incentives (reliefs and subsidies). Fossil fuel subsidies in Slovenia were lower than the EU average and slightly higher than subsidies for renewable energy sources or renewable technologies, which are among the lowest by international comparison (EC, 2020a). A review of known dedicated resources for the green transition shows that more funding will be available for this purpose in the period 2021–2030 than in the period 2016–2020, especially from EU sources, but that this will not be sufficient to finance the needs estimated in the NECP. This gap will need to be closed with additional public funding and by tapping the investment potential of the private sector (see Fiscal Council, 2022, and IMAD, 2022).

4.2 Sustainable management of natural resources

Sustainable management of natural resources (Development Goal 9)

The goal of the SDS 2030 is to protect natural resources in a sustainable manner and plan their efficient use, as they are one of the key pillars of ensuring a healthy living environment, producing quality food and carrying out high value-added economic activities. The goal will be achieved by overcoming the silo mentality, preserving biodiversity, sustainable soil management, preserving quality agricultural land, sustainable forest development and efficient water management. The SDS 2030 recognises the importance of responsible spatial management. Mitigation of, effective adaptation to and exploitation of the opportunities provided by climate change will be of particular importance.

Performance indicators for Development Goal 9:

	Latest data		Target value for 2030
	Slovenia	EU average	
Share of utilised agricultural area, in %	23.6 (2021)	39.3 (2021)	>24
Watercourse quality, mg O_2/l	0.7 (2020)	2.7 (2020)	<1
Ecological footprint, gha/person	5.4 (2018)	4.8 (2018)	3.8

Current production processes and lifestyles in Slovenia have been exerting too much pressure on nature since 2014. The *ecological footprint*, which is one of the most comprehensive indicators of environmental burden (Indicator 4.8), fell during the global financial crisis to around the level of the beginning of the last decade, but it rose again in the period 2015–2018 (latest available data) and, on a per capita basis, exceeded the European average in this period. This shows that economic development in these years was achieved through high resource consumption and increased environmental pollution. Foremost in the structure of the ecological footprint is the carbon footprint, which mainly results from the use of fossil fuels in the transport and energy sectors.[259] The share of carbon in the overall footprint is comparable to the average in Europe and the rest of the world, with differences in structure occurring in other categories. Forest products account for a larger share due to greater use of wood in heating and construction. The export of logs and the import of finished products contribute to increasing the ecological footprint[260] and reducing the added value of the economy. In Slovenia, *nature's biocapacity*, i.e. biological areas with regeneration capacity, is above the world average on a per capita basis but below the European average. Slovenia's largest biocapacity is provided by forests, which mitigate climate change by absorbing carbon dioxide emissions, although at the same time the consumption of forest products contributes to the environmental burden. In Slovenia, the difference between the ecological footprint and biocapacity, i.e. the *ecological deficit*, is above the European and the world average. Humanity consumes 70% more natural resources than can be restored, and in Slovenia we consume as many resources as if we had three planets. A dignified life of the population within the limits of the planet's capabilities calls for a comprehensive and systemic transition to low-carbon circular solutions as soon as possible.

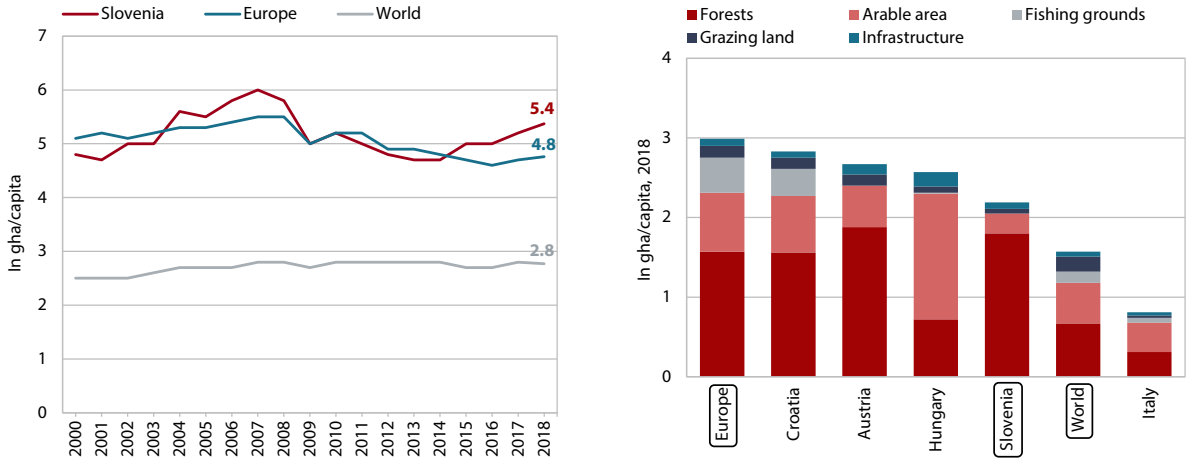
Slovenia is classified as an area of greatest biodiversity in Europe, and the need to find acceptable compromises in solving common challenges is becoming increasingly apparent. High biodiversity is primarily a natural condition but also a result of the systematic protection of plant and animal species and sound ecosystem management. Measured by the share of protected areas which, due to their great biodiversity and landscape diversity, are key to preserving the habitats of endangered species, Slovenia is at the top of the EU Member States, with a proportion of Natura 2000 areas twice the EU average. Yet despite numerous activities to protect it, biodiversity has been on the decline in Slovenia in the long term. The farmland bird index, which is one of the indicators of change, shows a decline in the farmland bird population, although there has been some improvement in recent years.[261] The conservation status of habitats is also

[259] The methodologies for calculating greenhouse gas emissions under the GFN ecological footprint and the United Nations Framework Convention on Climate Change (UNFCCC), where actual emissions and sinks are taken into account, differ, and therefore the results of the calculations are very difficult to compare. According to the UNFCCC methodology, emissions in Slovenia amounted to 16.7 Mt CO_2 in 2014. The ecological footprint according to the GFN methodology amounted to 5,857 thousand gha this year, equivalent to 17.3 Mt CO_2 (Kovač and Piciga, 2020).

[260] The depletion of a country's biocapacity for export needs and the import of additional biocapacity constitute an ecological deficit. In the calculations, the same products produced in Slovenia have a lower ecological footprint than imported ones. With a higher rate of wood processing in Slovenia, transport routes would be shortened and waste biomass for heating would also be increased, which would reduce the use of fossil fuels and the related greenhouse gas emissions and ecological footprint.

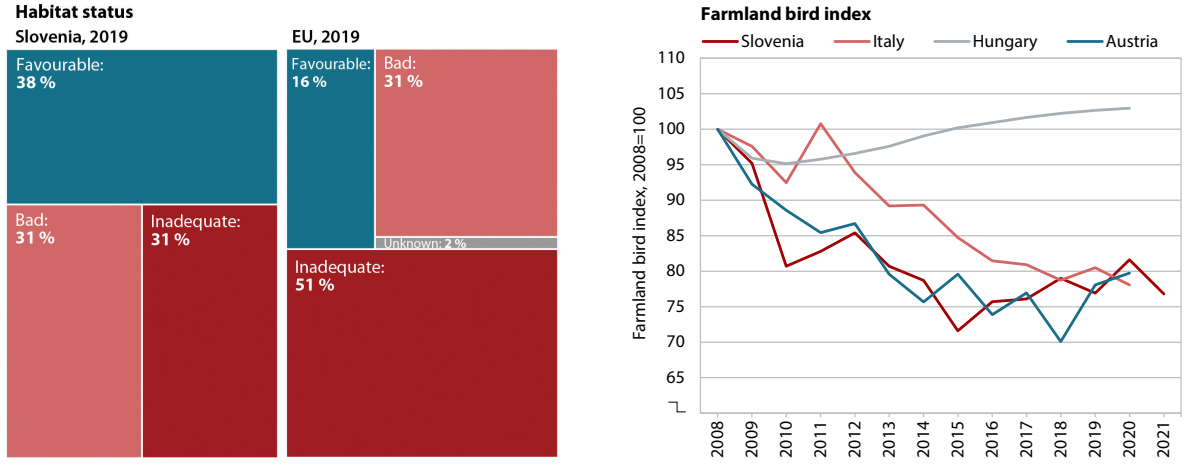
[261] It is quite difficult to determine biodiversity, because of the large number of species and interactions between them and with the abiotic environment. Indicators that broadly show the general condition include population size of selected bird species, the farmland bird

Figure 70: The ecological footprint in Slovenia was higher in 2015–2018 than in Europe as a whole and the gap widened (left), while nature's biocapacity in this comparison is lower and largely dependent on forests (right)



Source: Global Footprint Network (2022). Note: the global hectare (gha) is the fertile area needed to meet human needs for food and maintain people's lifestyle and dispose of the waste generated in the process.

Figure 71: The status of habitats of European importance in Slovenia is more favourable than the EU average, and the farmland bird index, which had been declining for a long time, has improved slightly in recent years



Sources: Eurostat (2023), ARSO (2023c). Figure on the right: Data for Croatia is not available.

declining, although it is better in Slovenia than at the EU level, especially for habitat types such as freshwater, moorlands and marshes, and grasslands. In addition to natural processes, habitats are also affected by the intensification and abandonment of agriculture, soil sealing associated with the spread of urbanisation, transport and economic activities, poor management of watercourses, pollution, and the introduction of invasive species. Investment in the conservation and restoration of nature, which are becoming urgent, will also be instrumental in the economic recovery of Europe.[262] The challenges are to overcome silo mentality and seek a compromise between the interests of nature protection and economic activity. Recently, finding a compromise solution for the siting of power plants for the generation of energy from renewable sources has been extremely challenging.

Agriculture, which plays a key role in preserving biodiversity, is not particularly intensive in Slovenia by international standards, and the crises have intensified the awareness of the importance of efficient and competitive food chains. Slovenia ranks among the EU Member States where the conditions for agricultural production are on average more difficult:

index, preservation of wildlife populations and forest conservation.

[262] More than half of the world's GDP depends on nature and its services, in particular three activities – construction, agriculture, and the manufacture of food and beverages. The global biodiversity crisis and the climate crisis are intrinsically linked, as climate change accelerates the destruction of the natural world through droughts, flooding and wildfires, while the loss of nature and its unsustainable use are key drivers of climate change. But just as the crises are linked, so are the solutions. When restarting the economy after the COVID-19 crisis, this awareness will have to be raised, taking greater account of the business value of biodiversity and finding ways out of harmful former habits (EC, 2020f).

Box 5: Food security and food waste – Topical issues again

Although food security, which is increasingly affected by climate change and environmental degradation, is not under threat in Europe, it once again rose to the top of the political agenda after decades of relatively successful management of the Common Agricultural Policy (CAP). A European Commission (EC, 2023b) analysis has shown the great extent of the issue and the urgency of action. The main objective of the CAP, to ensure a stable food supply at affordable prices, remains unchanged, but as agricultural production faces growing environmental and climate challenges, this objective is becoming increasingly difficult to achieve. Water scarcity, decreasing soil fertility, greater frequency of extreme weather, loss of pollinators, the emergence of new diseases and pests, and dependence on fossil fuels all contribute to greater yield uncertainty. Strengthening all production practices that increase the sustainability and resilience of the food system is essential for long-term security of food supply.

Awareness of the importance of food security has also increased in recent years due to the economic consequences of the health crisis and new geostrategic conflicts. One of the main problems is the relatively high concentration of power in the individual links in the food chain, which reduces the efficiency and equity of burden sharing. Rising commodity prices have increased concerns about ensuring global economic security (OECD and FAO, 2022). The energy crisis related to the Russian invasion of Ukraine has highlighted the need for greater diversification of energy suppliers and, at the same time, a faster shift away from the use of fossil fuels. The problem is reflected in higher food prices due to rising production costs, with low-income households that are less able to afford diverse food items being hit hardest. Greater integration and coherence between the CAP and policies in other areas such as trade, health, social security, climate and the environment, research and innovation, and knowledge transfer are key to the stability of the system.

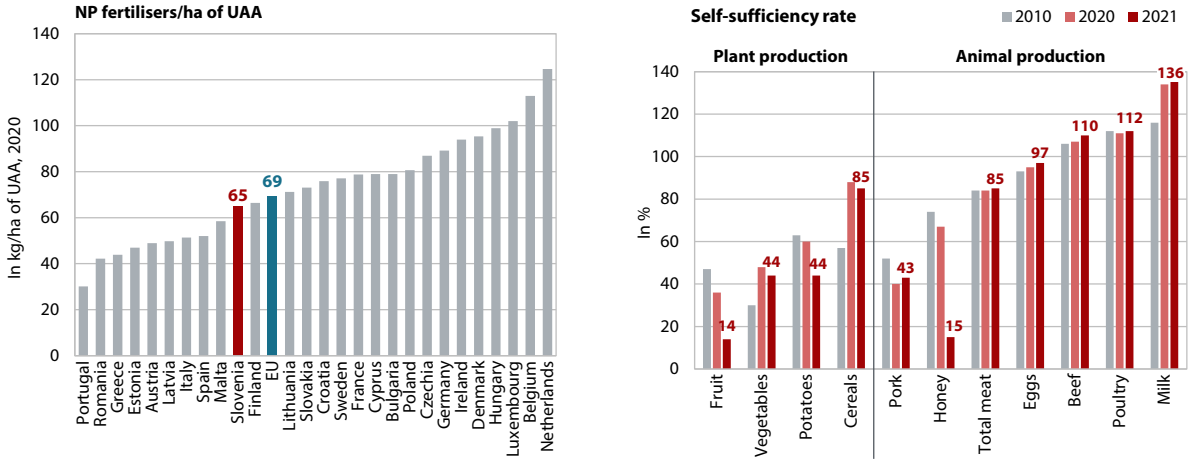
Improving food security requires preventing and reducing food surpluses and waste throughout the food supply chain, which also contributes to achieving the Sustainable Development Goals. Reducing food waste improves food security by distributing surplus food to people in need while generating financial savings for producers, businesses and households. It is estimated that one-third of food produced globally and one-fifth of food produced in the EU is lost or wasted (FAO, 2023; Stenmarck et al., 2016), and with it all the associated resources needed to produce, process and distribute food, such as energy, water and land, labour, and other resources. In Slovenia, 143,000 tonnes of food was wasted in 2021, which is 68 kg per capita (SURS, 2023h), about half the EU average (Eurostat, 2023). Half of food waste was generated in households and a third in accommodation and food service activities and other activities, which include food preparation and distribution. The key to combating food waste is (i) preventing food losses, surpluses and waste, (ii) reducing food waste through redistribution and use of surpluses, and (iii) appropriate food waste management (MKGP, 2021b). EU Member States are expected to propose legally binding national targets in this area in 2023.

the share of agricultural land in the total area is relatively low, while the land is fragmented and about three-quarters of it lies in less favoured areas. These conditions hamper agricultural production, reduce efficiency and, with a large proportion of grassland, direct activity more towards livestock farming. The share of arable land per capita is low by international comparison (Indicator 4.9). In agriculture, significant structural changes, such as increases in the size of agricultural holdings and their specialisation, are underway, and organic farming and livestock rearing are also on the rise.[263] Since attention has increasingly been turned to environmental concerns, gross nitrogen and phosphorous surpluses, which are basic indicators of agriculture's impact on soil and water, have significantly declined over the long term.[264] After low balance surpluses in 2020, these increased slightly in 2021, mainly due to lower yields and higher use of nitrogen fertilisers from farm stocks (Verbič, 2023). The average yields per hectare are mostly below the EU average (Indicator 4.10), which means that the burden on the environment is less severe but also indicates lower productivity of natural resources. Self-sufficiency in the majority of basic agricultural products, in particular organic produce, is relatively low, pointing to the need for greater collaboration between producers, training and technological upgrading. There is a large difference in the level of self-sufficiency between animal and plant products, not least because the livestock sector has received more financial support in the current programming period. The vast majority of food is imported, with only about a fifth produced locally (ARSO,

[263] By 2027, the share of organically cultivated agricultural land is expected to increase by 8 p.p., i.e. to 18%. The target has been set ambitiously in order to be able to move closer to the EU target of 25% of organically cultivated agricultural land by 2030 (MKGP, 2021a). In the EU, organic farming has been identified as one of the key mechanisms for achieving the objectives of the Green Deal.

[264] The reduction in the consumption of mineral fertilisers is due to the requirements of the Nitrates Directive and the principles of good agricultural practice in fertilisation, to which all agricultural holdings are committed. Much attention is paid to the use of livestock manure and the consideration of plant nutrients in livestock manure in the planning of fertilisation with mineral fertilisers. Since agricultural holdings must have fertilising plans in place in which the used plant nutrients from livestock manure are also evaluated, the consumption of mineral fertilisers is being reduced accordingly (ARSO, 2023c). It is preferable that the balance surplus of the element, i.e. the positive difference between its input to the soil and crop uptake, is low.

Figure 72: Sales of NP fertilisers per unit of agricultural area (UAA) in Slovenia are close to the EU average, but the level of self-sufficiency of basic agricultural products is low, especially for plant crops



Sources: Eurostat (2023), SURS (2023h), KIS and MKGP (2022), Travnikar et al. (2022).

2023c). Exports are mainly of unprocessed products, while imports are mainly of processed agricultural products (SURS, 2023h), which is an untapped potential to increase value added. The establishment of efficient and competitive supply chains is crucial.[265] The scale of production is highly dependent on weather conditions, and this dependence will increase further under the influence of climate change. Agriculture faces major challenges that relate to sustainable food production, the responsibility for nature and the conservation of its resources,[266] and the reinforcement of rural areas (MKGP, 2021c).

The management of forests, which cover a large part of Slovenia's land area, was affected by sanitary felling after natural disasters in 2014–2019, but felling decreased again in 2020 and 2021, and timber as a raw material is still underexploited. Slovenia is one of the three most forested countries in Europe, with forests being its best-preserved natural ecosystem. This has a beneficial effect on the environment (Indicator 4.11). Forests play a major role in achieving the objectives of various policies, for example as a carbon sink, for biodiversity protection, for rural development, for green job creation and for fossil fuel substitution, and are therefore crucial for the transition to a low-carbon society (EC, 2021c). In recent years, more than 60% of forests in Slovenia have been hard hit by natural disasters (ZGS, 2022): a large-scale glaze ice damage in 2014 was followed in subsequent years by forest damage caused by a massive spread of the spruce bark beetle and by windthrows in 2017 and 2018. Therefore major sanitary felling was necessary in this period, with the situation normalising in 2020 and 2021.[267] Due to a high share of older and thicker trees, which provide high biocapacity and carbon storage with a high average growing stock, the resilience of Slovenia's forests to meteorological disasters decreased (Stritih, 2018). Total tree felling, raw wood production and net exports[268] increased in the context of relatively extensive sanitary logging but declined again in 2018–2021 due to lower pest populations and lower forest damage (Indicator 4.11). The intensity of tree felling lags far behind the annual wood increment, which reflects unsustainable forest management. Tree felling should therefore be increased and brought closer to that planned. Increased tree felling would encourage more extensive use of wood in building construction, processing for other activities and heating. It will have to be based on environmentally friendly technologies

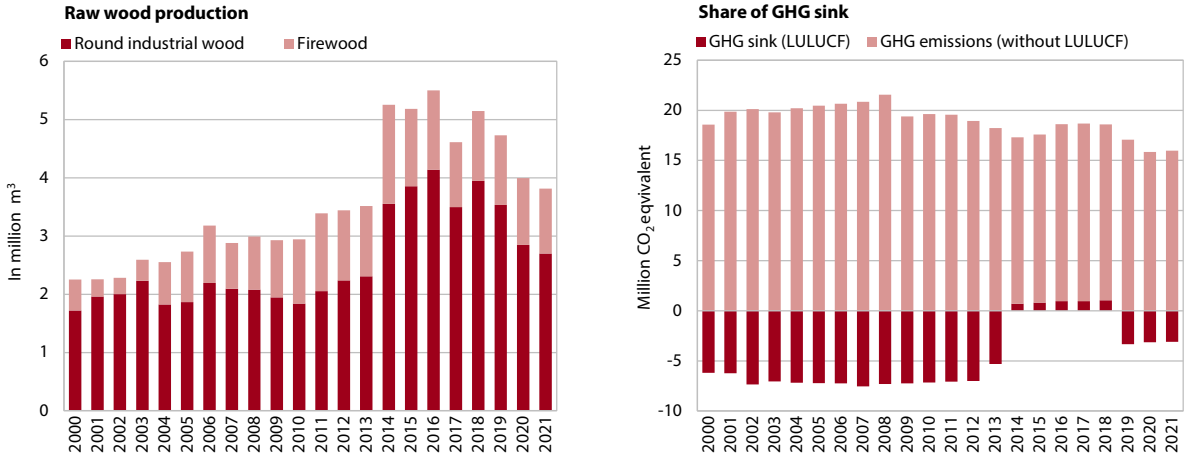
[265] The COVID-19 epidemic highlighted the importance of a stable and sustainable food supply chain. During the closure of accommodation and food service activities, tourism, and public institutions, which had previously regularly purchased domestic agricultural products and foodstuffs, the producers and processors who had concluded prior purchase agreements and contracts were the least affected.

[266] The European Commission (2022) has proposed radical changes in the use of plant protection products: (i) a complete ban on the use of all plant protection products in sensitive areas; (ii) a 50% reduction in pesticide use at the EU level by 2030; and (iii) the mandatory introduction of integrated pest management. However, the proposed regulation does not take into account the specificities of the individual Member States (National Council of the RS, 2023). For Slovenia, enforcing the regulation would mean banning the use of these products on 40% of all agricultural land, which could jeopardise food security and increase dependence on food imports.

[267] There were no major weather disasters in 2020 and 2021, but in July 2022 a prolonged drought and very high temperatures in the Goriška Karst region caused the largest wildfire in Slovenia to date. The fire destroyed about 3,700 ha of land, including 2,900 hectares of forest. It makes sense to rejuvenate forests by planting tree species that are more resilient to climate change. Most of the planned sanitary work will be carried out in 2023 and 2024 (MKGP, 2022).

[268] The relatively high exports of unprocessed wood increased further in the first few years after the ice glaze damage, but they have declined since 2016, when the Slovenski državni gozdovi d.o.o. company (SiDG), which manages one-fifth of all forests in Slovenia, was founded. One of the objectives of the SiDG is to increase the processing and treatment of timber and support the development of the domestic wood industry. When selling wood, the company gives preference to wood processors over wood traders. In 2018, it entered into long-term sales contracts for the first time to ensure a stable supply of raw material for the next three years. This is one of the key measures to support the development of forest–wood chains and to create higher value added in this activity. The most important purchasers of unprocessed wood are sawmills, wood composite industries, and the cellulose and paper industries (SiDG, 2022).

Figure 73: The high production of raw wood products as a result of sanitary felling after the glaze ice is decreasing, and forests, together with other land use, once again contribute significantly to GHG sinks



Sources: SURS (2023h), ARSO (2023b). Notes: Slovenia's forests were hit by glaze ice in early 2014. Forests contribute the major share to the GHG sink in the LULUCF sector, i.e. land use, land-use change and forestry.

and efficient use in line with the principles of the circular economy.[269] With a proper use of modern technology, wood is a raw material with a low ecological footprint, so the replacement of fossil materials and fuels with wood contributes to reducing greenhouse gas emissions and preserving the environment (Lin et al., 2020).

Slovenia has abundant water resources, which are one of the most important limited natural resources, and the quality of river water is the highest among EU Member States for which data are available. The *abundance of water resources* is evident from the per capita availability of freshwater resources, which is twice the EU average and the fourth highest among EU Member States. Generally, water supply is sufficient, as only half of the quantity of surface waters flowing into or falling on the territory is utilised and only a fifth of groundwater. There are nevertheless occasional floods or water shortages, a consequence of weather and human intervention. In the face of major climate change, more attention needs to be paid to preventing changes in water conditions, as these may adversely affect fundamental values and needs, such as human health, the health of ecosystems, food production and energy production. The proportion of water used for land irrigation is still almost negligible. *Water quality*, measured by biochemical oxygen demand in rivers, has improved to the highest level among EU Member States due to the increasing and more efficient treatment of wastewater (Indicator 4.12). There has been a significant improvement in its average chemical, biological and microbiological parameters.[270] Slovenian rivers are fairly oxygen-rich and contain low levels of nutrients, organic matter and pesticides, though in some areas their content is nevertheless excessive. The situation is the worst in the Mura and Drava river basins, which are areas with more expansive and intensive agriculture,[271] while Adriatic rivers and the Soča and Upper Sava basins have the best ecological status (ARSO, 2023c).

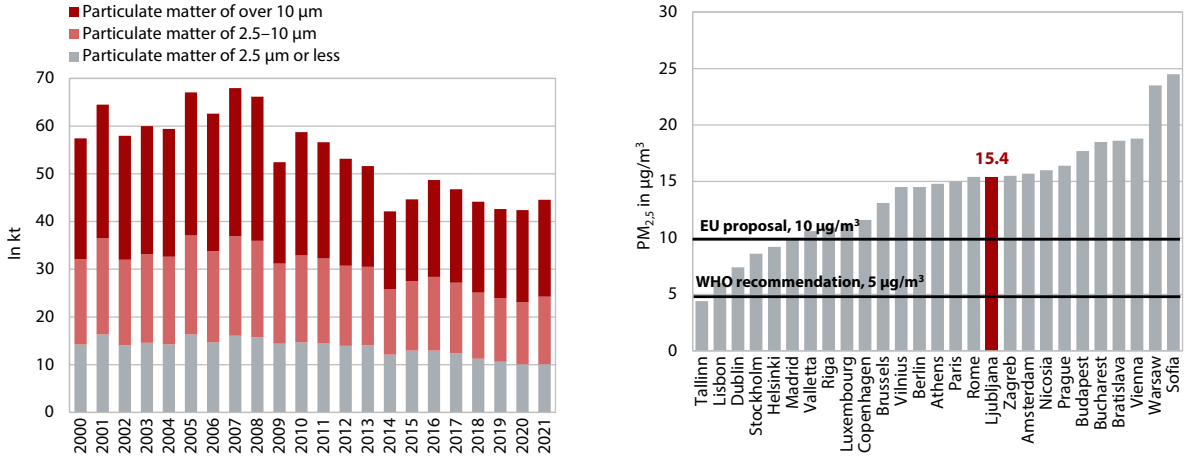
Air quality in Slovenia is held back by relatively high concentrations of particulate matter, but despite higher emissions in 2021, air pollution from particles was lower due to favourable meteorological conditions. *Particulate matter emissions*, which mainly come from small combustion plants, construction and road traffic and had been declining since 2016, increased again in 2021 (by 5%). This was mainly due to an increase in particles over 10 µg in diameter, resulting from increased road construction activity. Emissions from road traffic were also higher (but lower than before the COVID-19 epidemic), and emissions from small combustion plants, which are responsible for half of all particulate matter emissions, were lowest in 2021 in the entire observation period since 2000. Favourable meteorological conditions that allowed dilution resulted in less *particulate air pollution* despite higher emissions. The annual limit level for PM_{10} and $PM_{2.5}$ was not exceeded at any measuring point (ARSO, 2023c). Exposure of urban populations to the most harmful $PM_{2.5}$, which is locally highly dependent on basin location and wind conditions, is also declining but is still slightly above the EU average (Indicator 4.13). In addressing problems with some other pollutants, for example sulphur and nitrogen oxides, ammonia, and carbon monoxide, which were highly problematic in the past, efficient solutions have been achieved over the long term as legislation has been tightened and sectoral policy measures deployed

[269] Some financial incentives, e.g. from the Rural Development Programme and the Recovery and Resilience Plan, are also available for this purpose.

[270] The chemical status of waters is determined with reference to 45 priority substances including atrazine, benzene, cadmium and mercury. Their ecological status is assessed based on the condition of communities of water plants, algae, invertebrates and fish.

[271] The Common Agricultural Policy is increasingly paying attention to protection of the environment, including the protection of waters against pollution from agricultural sources.

Figure 74: Particulate matter emissions rose again in 2021 after declining in recent years (left); in European cities, including Ljubljana, levels of the most harmful particles are well above the proposed limit by 2030 (right)



Sources: ARSO (2023a), State of Global Air (2023). Note: Figure on the left: since the last reporting year, data on emissions have changed significantly throughout the time series. This is due to changes in calculation methods, new input data and emission factors, and audit recommendations.

(Ogrin, 2017).[272] Air pollution is recognised in the EU as the most significant environmental risk factor for human health, because it causes high morbidity and premature mortality (see Section 3.2). The policy actions in this area are also tightening due the demand for long-term clean air brought about by temporary measures to limit the spread of COVID-19 (Health Effects Institute, 2020).[273] In order to reduce the social costs associated with air quality, Slovenia must also strengthen measures in the transport sector, with comprehensive regulation of public transport, increased use of alternative fuels and promotion of non-motorised forms of urban mobility.

Soil quality in Slovenia is satisfactory, while poorly designed and overly extensive soil sealing is a problem. The content of organic matter in the soil is favourable compared to the EU and other Mediterranean countries, partly due to Slovenia's predominantly livestock-based agriculture. This indicates good physical, chemical and biotic properties of soils, such as soil structure, porosity and permeability, retention and cleaning capacity, drought tolerance, and the content of more stable forms of nitrogen in soils (ARSO, 2023). Average annual soil erosion is relatively low, due to the high forest coverage in Slovenia (Vrščaj et al., 2020), and soil pollution is generally low. Exceedance of the information and sometimes alert thresholds for heavy metals is detected locally in some places, e.g. in areas with long-standing mining, smelting and metallurgical activities and in areas with high traffic density. Unlike in air or water, substances in soil build up, which means that reduced release does not typically result in reduced levels. The most polluted areas include the Mežica Valley, the Celje Basin, Jesenice and Idrija.[274] In the case of soil contamination with organic pollutants, in some areas of intensive agricultural production, limit values of pesticides or their breakdown products have been shown to be moderately exceeded occasionally. A particular threat to the soil is sealing of the best soils, including those not used for agriculture. The care of soils and the functions and services thereof, which support life on Earth,[275] is often inadequate. In order to improve soil management and reconcile conflicting interests, it is necessary to include soil impacts in the overall environmental impact assessment of human interventions and to establish an up-to-date inventory in a single database (Vrščaj, 2023).

[272] Recent efforts have been aimed at reducing emissions from small and medium-sized combustion plants.

[273] In October 2022, the EC proposed a revision of the EU Ambient Air Quality Directive, including stricter limits for $PM_{2.5}$ concentrations, which were lowered from 20 µg/m³ to 10 µg/m³. Updated WHO guidelines recommend concentrations below 5 µg/m³ from 2021. The cost of complying with the new standards is estimated to be well below 0.1% of GDP, while the benefits will be at least seven times as high (EC, 2022u). On the emissions side, stricter limits for the five main pollutants are also set by the EU National Emission Ceilings Directive, which is a key element of the broader Clean Air for Europe programme (Official Gazette of the Republic of Slovenia [*Uradni list RS*], No 48/18, 2018). Slovenia is expected to reduce $PM_{2.5}$ emissions by 25% after 2020 compared to 2005 and by 70% after 2030 (EU average by 22% and 51% respectively). Initiatives such as more stringent air pollutant emission standards for vehicles, revision of the Industrial Emissions Directive, and measures contributing to a climate-neutral and resource-neutral economy by 2050 will also contribute to reducing air pollution. The priorities and actions announced under the European Green Deal and the opportunities provided by the long-term budget for the 2021–2027 period and the NextGenerationEU instruments will help to meet the commitments (EC, 2020c).

[274] In the Mežica Valley, measures have been in place since 2008 to remedy the problem of soil pollution, including the asphalting of unmetalled roads, replacing polluted soil, resurfacing with unpolluted soil and planting grass. Lead content has dropped to below action level, but in some places, it has started to again increase gradually (MOP, 2017).

[275] In addition to providing food and other biomass, soils play an important role in supplying drinking water, conversion and neutralisation of pollutants, acting as a carbon sink and atmospheric CO_2 sink, maintaining biodiversity, helping to shape natural and cultural landscapes, etc.

In the case of land, which is also a limited natural resource, the process of revitalising functionally degraded areas (FDAs)[276] continues, but it requires comprehensive regulation, including the development of a legal framework. In the six years since FDAs were first recorded, their number declined (FF UL, 2023). Activity has resumed in about a quarter of the areas (Indicator 4.14), but new activity is very dispersed (industrial, craft and storage activities and areas for housing predominate). This reflects the lack of systematic spatial planning and the absence of a strategic approach to the siting of new activities. Sound and sustainable redevelopment or revitalisation, which is a time-consuming and financially demanding process with a high degree of uncertainty, brings many long-term economic, social and environmental benefits. Revitalisation of degraded areas is also a mechanism for introducing a circular economy in terms of preserving land as a natural resource, reducing the loss of fertile land[277] and achieving the goal of net zero soil sealing (ReNPVO20–30, 2020). When establishing new activities in FDAs, it is crucial to find compromises between national, regional and local needs to ensure their longer-term viability. This also applies to RES power generation facilities, for which priority siting areas should be identified in line with the Recovery and Resilience Plan, and the processes need to be shortened and accelerated (MOPE, 2023b). Land use and FDA revival are often planned in the short term and left to investments that follow market demand rather than being the result of well-designed and sustainable solutions. The preparation of the first generation of new regional spatial plans (ZUreP-2, 2018) from 2023 onwards is therefore also an opportunity to regulate and integrate the revitalisation of FDAs into strategic spatial planning at the regional level (see Chapter 3). In this context, it will be necessary to develop a comprehensive legal framework to support a systematic and sustainable process of revitalisation of these areas and thus a more rational use of common spaces (Rebernik et al., 2023).

[276] FDAs refer to not fully utilised or abandoned land with a visible loss of function of more than 0.5 ha (or 0.2 ha in urban areas). The basic criterion is the abandonment of activities. Nine types of FDA sites have been defined (see Index 4.14, Table).

[277] In 2012–2021, about 6,200 hectares of land was returned to agricultural use, while twice as much was lost to such use. About half of the lost agricultural land was overgrown or converted into forest (MKGP, 2023).

5 A high level of cooperation, competence and governance efficiency

Slovenia has made important steps forward in certain areas related to the functioning of the state, in particular in the digitalisation of public services and the development of e-government, the introduction of quality standards in public administration, and the efficiency of the judiciary, and has adopted measures to reduce administrative burdens and prevent corruption. Social dialogue was resumed in 2022 after a one-year hiatus. Corporate governance and return on equity in state-owned investments are also gradually improving.

Despite the progress made and the measures taken, institutional competitiveness has not changed noticeably compared to other countries, and most of the challenges identified in recent years are still relevant today. The gap with the EU average is narrowing only slowly in most areas of governance and public services, as measured by the IMD, the WEF, the World Bank's governance Indicators and the executive capacity index. Businesses cited excessive bureaucracy and lack of a supportive business environment as the main problems when doing business (e.g. tax and labour legislation and the associated perception of a high tax burden on labour). The predictability and stability of the business environment and legislation, which changes quickly and frequently, remain an obstacle. Businesses face lengthy judicial and administrative procedures (e.g. the procedure for obtaining building permits or for employing foreigners). International comparisons point to the interference of the government and politics in company operations and the related lack of good corporate governance in state-owned companies. Many of these challenges are related to the strategic management of public

institutions. The participation of the public and key stakeholders (e.g. networking between companies, knowledge institutions and public institutions), including civil society and professionals, in the adoption, implementation and monitoring of policies and legislation should continue to be strengthened. Trust in public institutions and the rule of law remains relatively low, and the perceptions of corruption are high and have even increased slightly in recent years. It is worth noting that uncertainty in the international environment, the epidemic, the transition to the fourth industrial revolution and green transition have emphasised the importance of effective strategic management and response by institutions.

Global responsibility is reflected in the achievement of Sustainable Development Goals of the 2030 Agenda, where Slovenia is ranked among the best countries in the world and around the EU average. Expenditure on official development aid has increased in recent years but remains well below internationally adopted commitments.
In the light of the increased global challenges and uncertainty in the international environment due to the war in Ukraine, Slovenia's candidacy for non-permanent membership of the Security Council for the period 2024–2025 is of particular importance. As a small country, Slovenia could play an important role in shaping the global agenda, contributing to international peace and security and strengthening confidence in multilateralism.

5.1 Efficient governance and high-quality public service

Efficient governance and high-quality public service (Development Goal 12):

To achieve this goal, it is necessary to ensure effective strategic governance of public institutions and the formulation of quality public policies that respond to changes effectively and quickly. Significant factors listed in the SDS 2030 as contributing to stronger governance of the public sector include framing goal-oriented policies, creating a highly developed culture of cooperation between citizens and institutions to strengthen trust in the latter, involving stakeholders at all levels of policy development and monitoring, nurturing social dialogue, and ensuring accessibility of information. It is also important to make governance of public systems and services efficient (and innovative), improve oversight of institutional and social structures, and ensure accountability for adopted decisions.

Performance indicators for Development Goal 12:

	Latest data		Target value for 2030
	Slovenia	EU average	
Trust in public institutions, in %	Parliament: 26 Government: 29 Local authorities: 47 (2023, winter survey)	Parliament: 33 Government: 32 Local authorities: 56 (2023, winter survey)	At least half the population trusts public institutions (average of the latest three surveys)
Executive capacity, average score on a 1–10 scale	5.33 (2022)	6.05 (2022)	EU average in 2030

Institutional competitiveness, which declined sharply in the first year of the epidemic, improved slightly in 2022, though it still lags behind the EU average. The institutional competitiveness indicators (IMD, WEF) are significantly influenced by the values of the survey indicators, which measure businesses' perceptions in various areas of the functioning of state institutions.[278] After a period of relatively low institutional competitiveness compared to other EU Member States following the global financial crisis, indicators have improved significantly since 2015. This was mainly due to favourable macroeconomic conditions, stable public finances and improved sentiment among businesses.[279] With the outbreak of the epidemic in 2020, sentiment among businesses in Slovenia deteriorated drastically, leading to a deterioration in survey scores across all IMD components that was more pronounced than in other EU Member States.[280] In the last measurement, in 2022, the indicators improved slightly again, especially those measuring the perception of transparency and adaptability of government policies and perception of the legal and regulatory environment. This is attributed to the adoption of economic and social measures to deal with the crisis (the so-called anti-coronavirus packages) and the recovery of the economy after the epidemic. However, most of these indicators are below the values they were at before the start of the epidemic and also below the EU average. Compared to the EU and innovation leaders, the lowest scores were recorded for labour law, bribery and corruption, transparency of government policies, and the legal and regulatory environment (Figure 75, right). Slovenia also ranks in the bottom half of EU Member States in institutional quality indicators.[281] Slovenia's lag is greatest in the indicators of voice and government responsibility (transparency of policies, accountability of politicians and civil servants, state interference in business, etc.) and the government's effectiveness in supporting the functioning of companies (Kaufmann and Kraay, 2022).

Trust in public institutions has been relatively low over the past decade, well below the EU average, and although it increased in 2022, it declined again at the beginning of 2023.[282] Trust in institutions helps to facilitate policy implementation and effective governance of the state, as people who trust public institutions are more willing to comply with government authorities and laws, pay taxes, and participate in joint actions (Eurofound, 2018b; Perry, 2021). Following a

[278] Indicators measuring institutional competitiveness are mostly indicators from a survey of businesses, mainly measuring respondents' perceptions in various areas related to the functioning of government institutions. The survey is usually conducted at the beginning of the second quarter of the current year and therefore measures mainly the perceptions relating to the previous year. For more about the IMD and WEF methodology and the issues of survey indicators, see Chiaiutta (2007).

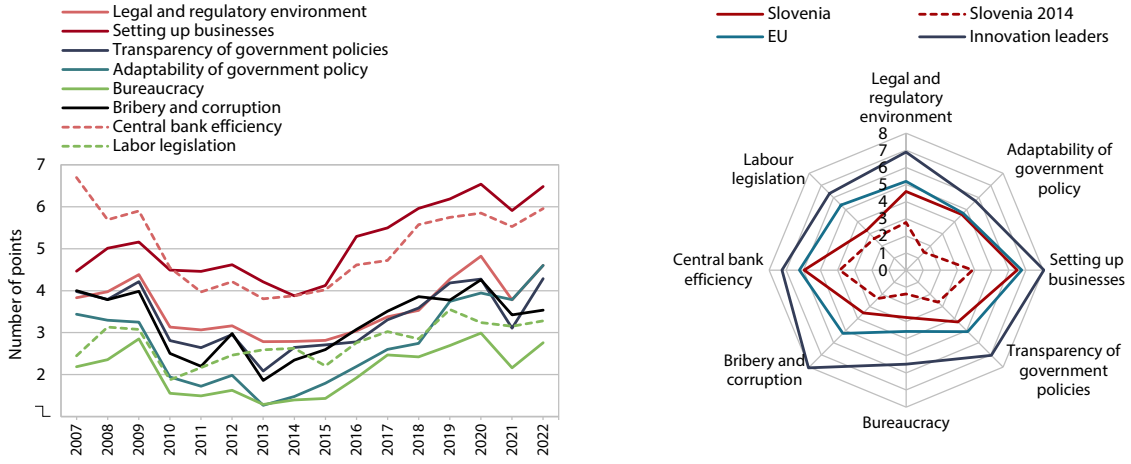
[279] As measured by the sentiment indicator (SURS) and ESI (Eurostat).

[280] Data from the last decade show that negative shocks have a greater impact on the perceptions of Slovenian respondents than the EU average.

[281] The World Bank's Quality of Governance Indicators, consisting of various data sources, are the most commonly used in the specialised literature. These indicators are voice and accountability (political processes, rights and media freedom), political stability and absence of violence/terrorism (stability and speed of change of government, safety), regulatory quality, government effectiveness (functioning, efficiency, independence of the civil service, including the functioning of basic healthcare, education and infrastructure), rule of law (area of normative legal rules, respect for fundamental rights of the individual, independence and efficiency of the judiciary), and control of corruption.

[282] Data for 2022 are from the Eurobarometer survey conducted in June–July 2022 and data for 2023 refer to the January–February survey.

Figure 75: The impact of the epidemic on the decline of institutional competitiveness in the first year of the epidemic was temporary, with Slovenia lagging behind the EU and innovation leaders on most indicators



Source: IMD (2022). Note: Higher scores are better. With reference to more detailed indicators, the maximum score is 10; all indicators are survey-based. The survey takes place at the beginning of the second quarter of the year in which the results are published. The innovation leaders are Sweden, Finland, Denmark, Belgium and the Netherlands.

gradual increase in 2015–2019, trust in key institutions decreased in 2020 and 2021. This was to a great extent due to the COVID-19 epidemic, which led to changes in the economy and people's lives. As the epidemic progressed, public satisfaction with government measures to contain the epidemic[283] declined, and satisfaction with democracy was the lowest among EU Member States in 2021 (see IMAD, 2022e). Compared to the previous year, trust in parliament and government increased significantly in the summer of 2022 and trust in political parties was also slightly higher, but it declined again at the beginning of 2023 and fell below the EU average (Indicator 5.1). This is also reflected in satisfaction with the way democracy works, which, following a significant increase in 2022, has declined slightly in 2023 and remains below the EU average.[284]

In 2022, turnout in the parliamentary elections was one of the highest ever recorded and turnout in the presidential elections was also high, while turnout in the local elections was one of the lowest recorded. Participation in elections allows voters to elect the political representatives they believe represent their interests (indirect democracy). Participation in parliamentary and presidential elections peaked in 1992 and has declined sharply since then. In the April 2022 parliamentary elections, it was 70.97%, the highest since 1996, putting Slovenia in the top half of EU Member States. The reasons for the higher turnout can be explained by voter dissatisfaction with political decision-making during the COVID-19 epidemic (Eurobarometer, 2021c, 2021d, 2022g). Some analyses show that turnout is higher in important elections, for example elections that decide the long-term political future of a country (Solijonov, 2016). Turnout in the presidential elections was also higher than in 2017 and 2012 (53.6% in the second round), but still relatively low. Turnout in the local elections was below 50% and one of the lowest ever. In the first round it was 47.64% and in the second round it was the lowest ever (42.12%) (DVK, 2023; IDEA, 2023). Slovenia traditionally has a low voter turnout for elections to the European Parliament, which in 2019 was the highest ever recorded (28.9%) but still among the lowest in the EU (lower only in the Czech Republic and Slovakia). Public participation in referendums, which are one of the most important forms of direct democracy, has increased in the last two years, though it remains relatively low.[285] According to the Democracy Index (EIU, 2022), Slovenia ranks 17th in the EU and is classified as a "flawed democracy".[286] The category of electoral process and the right to participate in elections received the highest scores, while the lowest score was recorded in the category of political culture, which is also reflected in a very low level of trust in politics and political parties (Indicator 5.1).

There are shortcomings in the participation of citizens in all stages of designing and monitoring policies and regulations. Cooperation with stakeholders is crucial for quality policymaking, increases public confidence in policies and regulations, strengthens the

[283] During the epidemic, trust in government, which was responsible for the adoption of containment measures, was particularly volatile (OECD, 2020a).

[284] In the summer of 2022, 51% of respondents were satisfied with democracy in Slovenia (EU: 58%), 16 p.p. more than in the summer of 2021 and 17 p.p. more than in the previous survey (January–February) (Eurobarometer, 2022f). In the winter of 2023, 47% of respondents were satisfied with democracy (EU: 58%) (Eurobarometer, 2023b).

[285] Turnout in the last referendums in 2022 was 41.8%, slightly lower than in the 2021 referendum, when it reached 46.46%, which was the second highest turnout on record for a legislative referendum (DVK, 2023).

[286] The umbrella index of democracy is the arithmetic mean of the five sub-indices, with a possible number of points between 0 and 10. Countries with scores between 8 and 10 are classified as "full democracies", those with scores between 6 and 8 as "flawed democracies" and those with lower scores as "hybrid or authoritarian regimes". Sub-indices consist of the electoral process areas and the possibilities to participate in elections, the functioning of the government, political participation, political culture and civil liberties (EIU, 2022).

legitimacy of adopted regulations, and helps to facilitate policy implementation (OECD, 2021b)budgeting practices, human resources management, regulatory governance, public procurement, governance of infrastructure, public sector integrity, open government and digital government. Outcome indicators cover core government results (e.g. trust, political efficacy, inequality reduction.[287] The current arrangement of drafting regulations requires that drafters and proponents of a draft law submit, *inter alia*, a summary of participation of the public in drafting the legislation (ReNDej, 2009). In Slovenia, public participation is relatively low, with several surveys suggesting that the accepted minimum standards of participation[288] are often ignored, while the majority of ministries do not involve stakeholders in the drafting of regulations until the final stage[289] (Forbici et al., 2015; OECD, 2021b; Court of Audit of the Republic of Slovenia, 2021a). On the other hand, the OECD data (2022a) indicate that in Slovenia the involvement of stakeholders in drafting regulations (in particular primary legislation) is stronger than on average in the EU, while the monitoring of their implementation is much weaker. The public can participate in the drafting of regulations through the e-Demokracija *[e-Democracy]* web portal, and citizens can also participate in the shaping of government policies and actions through the web portal for sending recommendations to the government (predlagam.vladi.si). Strategic research and innovation partnerships (SRIPs), which bring together the business sector, institutions of knowledge and the state as part of the implementation of the smart specialisation strategy, are a good tool for strengthening the links between the state and stakeholders, including by ensuring an agile response to the changing needs and circumstances (MGRT, n.d.). SRIPs help shape the implementation of this strategy and organise the entire ecosystem of development and innovation. It would be useful to improve dialogue between partners and involve SRIPs more as partners in the process of formulating policies, strategies and specific actions (Bučar et al., 2022).

Social dialogue was resumed in 2022 after a one-year hiatus. Social dialogue plays an important role in addressing issues and measures related to social and economic policies in Slovenia. The Industrial Democracy Index[290] shows that the participation of stakeholders in social dialogue is high in Slovenia, but cooperation between the social partners has been stagnating for a long time and could still be improved (Eurofound, 2018a). In recent years in particular, the work of the Economic and Social Council has been repeatedly disrupted, and the social dialogue has often stalled or been interrupted. This was most recently the case in the first half of 2021, due to employees' dissatisfaction with their participation in the drafting of intervention laws and the adoption of some law proposals that were not related to the epidemic under the urgent procedure in the national assembly[291] (ESS, 2021; HIIS et al., 2021). The Economic and Social Council reconvened in the summer of 2022, but, with the high intensity of negotiations and coordination, certain problems still arise (e.g. the government quorum and the timetable for the discussion of draft laws). Civil society representatives are also actively involved in social dialogue in the framework of the EC and other EU institutions. In Slovenia, however, the non-governmental sector and other professional organisations have not played a significant role in social dialogue for a long time, despite the adoption in 2018 of the National Strategy for the Development of Non-Governmental Organisations and Volunteering up to 2023 and the EC Recommendations (IMAD, 2021a). The EC (2020d) pointed out that the public in Slovenia does not always have sufficient opportunity to participate in the legislative process,[292] as the recommended consultation period is often not followed and in some instances, comments are not duly taken into consideration.

5.1.1 Performance of the public administration and the provision of public services

In the area of public administration, the country has focused over the past year on developing digital public services and bringing public administration closer to the needs of the users. The basic document for the efficient functioning of public administration in the recent period was the Public Administration Development Strategy 2015–2020. In its final report, the MJU (2021a) states that most of the measures set out in the strategy have been implemented, but it does not provide a comprehensive analysis of the effectiveness of the implementation of the strategy. The Digital Public Services Strategy 2030 was launched at the end of 2022 and set out three strategic priorities – by 2030, 100% of key public services should be available online and accessible to all users, at least 80% of key public services that are accessible online should also be delivered

[287] Public participation can be spontaneous (based on an individual's interest) or organised by addressing target groups and experts. In this context, it should be borne in mind that certain interest organisations' role in the process of drafting regulations is defined by means of specific regulations or arrangements (ReNDej, 2009).

[288] Public participation in the drafting of regulations should last from 30 to 60 days; an exception to this rule are the proposals of regulations where cooperation is not possible due to the nature of matters, such as urgent procedures, the state budget, etc. (ReNDej, 2009).

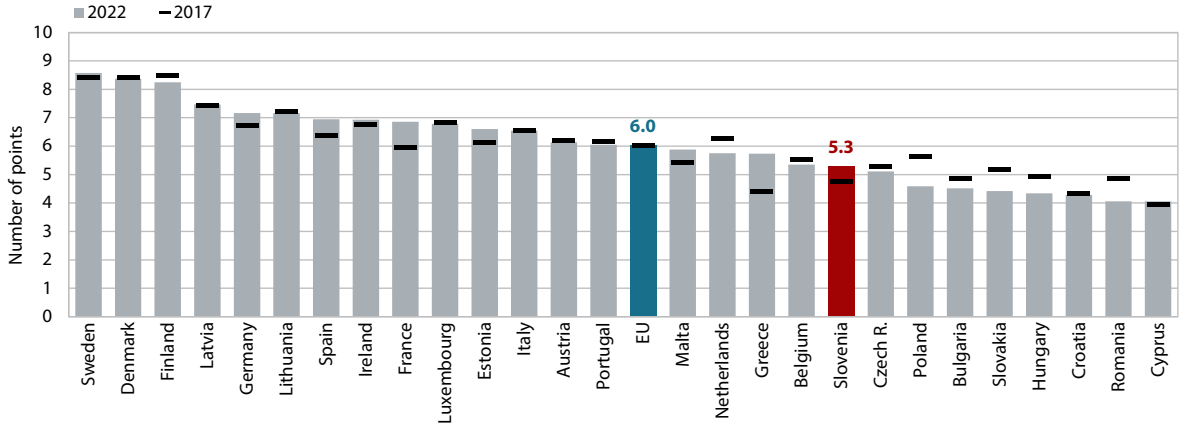
[289] It is important that stakeholders are involved both at the early stages of drafting regulations, when problems and possible solutions are identified, as well as when they are ready for further procedure (OECD, 2021b)budgeting practices, human resources management, regulatory governance, public procurement, governance of infrastructure, public sector integrity, open government and digital government. Outcome indicators cover core government results (e.g. trust, political efficacy, inequality reduction.

[290] The Industrial Democracy Index is composed of four parts: the autonomy of social partners in wage agreements, the representativeness at macro (social dialogue) level and in companies (work councils), participation of employees in corporate management decisions, and the interaction of all parties in collective bargaining and management decisions.

[291] For example trade unions' opposition to the adoption of the Demographic Fund Act.

[292] The draft laws are published on a dedicated e-Demokracija *[e-Democracy]* website, through which the public can send their contributions.

Figure 76: Strategic governance of public institutions as measured by the Executive Capacity Index in Slovenia is below the EU average



Source: Bertelsmann (2022); calculations by IMAD. Note: The index uses eight indicators to measure strategic governance of public institutions (see Indicator 5.2). A higher score is better, with the highest score being 10.

online, and at least 80% of citizens should use electronic identity solutions (MJU, 2022f). In drafting the strategy, the ministry has been guided by the digitalisation of public services and the new approach, as the strategy is primarily focused on the needs of public service users.[293] In December 2022, an expert council for the sustainable development of public administration was established to propose solutions in the field of quality of regulations, public participation in policymaking, the digitalisation of administration and the reorganisation of administrative units in order to improve the quality of public services.

The strategic governance of public institutions as measured by the Executive Capacity Index is slowly improving, but it is still assessed as weak compared to most other EU Member States. The score in recent years has been strongly affected by inefficient strategic capacity (e.g. the coherence between development policies and national and other strategies) and the lack of organisational reforms that hindered an effective implementation of strategies. During the COVID-19 epidemic, the assessment of the adaptability of government policy to the new situation and the implementation of measures (adoption of anti-coronavirus packages and thus an increase in available funds) improved, while the assessment of the communication of adopted measures and public participation in the measures deteriorated (Indicator 5.2). This highlighted the need for effective governance, as the new crisis situations required a different response and information flow. Despite the progress, Slovenia is still below the SDS target, but the gap with the EU average is gradually, albeit slowly, narrowing.

The development of eGovernment services has gradually improved in recent years and is above the EU average. Several digital tools make it easier for businesses (the SPOT portal *[Slovenian business point]*[294]) and citizens (the eUprava *[eGovernment]* portal) to do business with the state and for the public to participate in political and administrative decision-making (e-Demokracija *[e-Democracy]* and predlagam.vladi.si web portal for sending recommendations to the government). EC data (the Digital Economy and Society Index) show that Slovenia has made progress in the majority of digital public services indicators in recent years and outperforms the EU average, partly due to the methodological changes (Indicator 1.17). According to the last measurement, Slovenia performs particularly well on access to open data (EC, 2022e). The internet usage rate is high, but the results show that the potential of e-government services is not fully exploited. The EC (2022i) classifies Slovenia in the group of countries with underutilised e-government, indicating that the offer and quality of public digital services need to be further improved. In comparison with the EU, improvements are needed in key enablers (e-identity, e-documents, registers and e-delivery). According to the e-government development index calculated by the United Nations, Slovenia ranks 10th among EU Member States and has made progress in all survey components (UN, 2022). Important progress was made during the epidemic, when some identification requirements were lifted or relaxed, making digital public services more user-friendly. The spread of the epidemic also accelerated the transition to the SI-PASS service (or mobile smsPASS), which enables online registration and electronic signature of documents on several national and other portals and electronic commerce (eUprava *[eGovernment]*, SPOT *[Slovenian business point]*, zVem *[eHealth entry point]*, eDavki *[State tax portal]*, etc.). A new electronic identity card was introduced in March 2022 in accordance with the Decree on the determination of means of electronic

[293] The focus is no longer on the public administration as an organisation, but on the users and their needs in order to facilitate their interaction with the state.

[294] More than 2.8 million documents were submitted via the SPOT portal *[Slovenian business point]* in 2022 (which is almost 400,000 more than in 2021). The increase in electronic submissions is related to the introduction of new procedures and electronic services, including the processing of claims for reimbursement of salary payments.

identification and the use of a central service for online registration and electronic signature, which was adopted at the beginning of 2022.

The introduction of quality models in public authorities continues. Quality in the public sector is examined using the Common Assessment Framework (CAF),[295] which was initially introduced in administrative units and later also in the state administration bodies. Since the project's launch in 2016, more than 100 organisations from the public administration and the wider public sector have participated in the CAF quality assessment (MJU, 2021b). The quality of services is also related to the satisfaction of public service users. Therefore, in 2022, the MJU (2022c), in cooperation with administrative units, set up the UeNaročanje *[appointment booking at administrative units]* system, which enables faster processing of customers at administrative units and thus improves the quality of services. The changed situation due to the COVID-19 epidemic has highlighted the need to increase the prevalence (and possibilities) of working from home. In 2020, almost three-quarters of employees worked from home or worked hybrid and in 2022 only 10% of employees reported working exclusively at the employer's premises. As a result of the changes in the work model, major changes in the organisation of work were also seen: respondents noted a drastic improvement in skills related to IT literacy, while the biggest setback was observed in collaboration, teamwork and effective communication (MJU, 2022b). In August 2022, guidelines were adopted on hybrid work in the public administration, which not only facilitates the work-life balance of employees, but also reduces certain costs and makes a positive contribution to green transformation and digitalisation (MJU, 2022g).

In recent years, Slovenia has significantly reduced administrative burden and the lag behind the EU average has gradually narrowed, but the perception of these changes among business representatives is still relatively low. Various programmes for the elimination of administrative barriers have been systematically implemented in Slovenia for more than ten years, with the currently applicable document being the "Single document for ensuring a better regulatory and business environment", which was adopted in 2013 and is constantly updated with new measures. According to the MJU (2022e, 2022a), by the end of 2021, more than 300 measures to improve the regulatory and business environment had been implemented (76% of the total), most of them in the areas of finance, statistics, justice and agriculture. To date, 170 measures have been evaluated using the uniform methodology for measuring administrative costs, resulting in annual savings of more than EUR 430 million. The most important measures in recent years have been in the areas of entrepreneurship (SME test, promotion of investment and internationalisation of companies, closing business as a sole trader), digitalisation (public electronic archives, public procurement, health) and transport (reform of taxi services, concessions for public passenger transport services). The Debureaucratisation Act (ZDeb, 2022) introduced a number of simplifications of existing legislation (e.g. simplified and harmonised reporting to state institutions, the interconnection of different registers, and the possibility of using electronic communications in the service of postal items of state authorities) and mechanisms to prevent the accumulation of existing regulations and to allow for the repealing of past (obsolete) laws and the regulations based thereon. In the area of public procurement, measures have been taken to modernise and digitise the system (MF, 2022; MJU, 2022a; IMAD, 2022e), although efficiency remains an issue. The EC (2020b) highlights the lack of competition in public procurement, with a comparatively high number of single bids in tenders, which can lead to higher prices and the risk of corruption (MJU, 2022d). The number of requests for review and other applications in legal protection procedures also remains high (DKOM, 2022), which prolongs the duration of proceedings. Based on surveys among businesses, progress in reducing administrative burden has been reported by several international surveys (IMD, 2022; WEF, 2019), which also show that the gap with the EU average in the quality of the regulatory and legal framework has steadily narrowed in recent years, although Slovenia is still significantly below the EU average.

There are still shortcomings in the field of regulatory impact assessment (RIA), although some progress has been made in recent years. According to the MJU (2019b), only 68% of government materials (laws and other materials) underwent impact assessments in 2013, while this share in 2019 was 91%; the proportion of draft laws published on the e-Demokracija *[e-Democracy]* portal also increased (2013: 46%, 2019: 89%). The OECD (2021g, 2021h) identified a number of shortcomings related to the implementation of RIA and the need for better information and participation of stakeholders and the public. The Court of Audit of the Republic of Slovenia (2021a) also noted that the implementation of impact assessment is only partially effective and suggested, among other things, the development of additional tests to assess the impact of the proposed rules and further training of staff. The 2019–2022 action plan, adopted in 2019, is currently in force and contains systemic measures to optimise and modernise the drafting of regulations and the assessment of their effects (MJU, 2019a).

[295] The Common Assessment Framework in the public sector is a tool for comprehensive quality control developed in the public sector and for the public sector; it is based on the business excellence model of the European Foundation for Quality Management (EFQM).

5.1.2 Impact of public institutions on the business sector

Although significant progress has been made in recent years to simplify doing business, barriers are still higher than the EU average. In addition to the efficiency of public institutions, predictability of the economic environment and legislation are also of crucial importance. While the main advantages of the Slovenian business environment are its favourable geographical location and infrastructure connections and high-quality and well-qualified workforce, companies state that good staff are hard to find and keep (IMD, 2022; Jaklič et al., 2018). In recent years, several measures have been taken that have had a significant impact on the ease of doing business (digitalisation of public services and public procurement, establishment of a one-stop shop system, changes in insolvency law, adoption of the De-bureaucratisation Act). To support business activity, an amendment to the Investment Promotion Act (ZSInv-B, 2022) was adopted in 2022 to encourage investments in research, development and innovation tailored to the needs of the digital and green transformation. International comparisons show, however, that despite the measures, the obstacles for businesses in Slovenia are still higher than the EU average. One of the main obstacles is still excessive red tape, reflected in the density of regulations and the lengthy public service procedures, while other important obstacles are mainly associated with the rapidly changing legislation and tax policy (e.g. the labour cost burden and frequent changes in tax legislation) (Eurobarometer, 2022c; IMD, 2022; Kaufmann and Kraay, 2022; WEF, 2019). Amid labour shortage in Slovenia, lengthy procedures for employment of foreigners appear to represent a significant barrier to doing business[296] (CCIS, 2022b). At the beginning of 2023, amendments to the Foreigners Act were drafted to simplify the procedures for recruiting foreigners and to reduce red tape in this area (e.g. in serving of documents, retention of fingerprints, etc.) (MNZ, 2023). Businesses also believe that entry into ownership of national companies is more difficult for foreign companies in Slovenia than in other EU Member States and that state ownership of companies can be a significant barrier to competition and company performance in the market (IMD, 2022).

Corporate governance has been gradually improving in Slovenia but remains an important challenge in state-owned enterprises. It has improved in the last decade with the accession to the OECD and the adoption of the corporate governance code for state-owned enterprises. Nevertheless, international research points to the interference of the state and politics in company operations and a lack of good corporate governance in state-owned companies (EC, 2022o; IMD, 2022; OECD, 2018b; WEF, 2019). The EC (2022o) also points to the need to allow more flexibility in remuneration, strengthen supervisory boards and end the practice of politically motivated replacement of board members. In 2021 and 2022, the corporate governance code for listed companies was revised (e.g. creation of a competence profile for members of executive boards prior to the selection process, incompatibility of political and management functions, sanctioning) (Ljubljana Stock Exchange and Slovenian Directors' Association, 2021; SSH, 2022a).

The profitability of asset management of state-owned equity stakes improved in 2021. At the end of 2021, the total book value of the equity holdings managed by Slovenian Sovereign Holding (SSH), which has the largest portfolio of state capital assets in Slovenia, amounted to EUR 10.3 billion, and in total there were 62 active companies under its management. More than three-quarters of the portfolio consisted of strategic investments, the rest of important and portfolio investments.[297] According to the available data, the largest pillars (transport and energy sector) comprise almost three-quarters of SSH's asset management portfolio, which remains highly concentrated, with the top 10 assets representing more than 79% of the portfolio's total book value (SSH, 2022b).[298] In the period before the epidemic, the net return on equity (ROE) in the portfolios of the Republic of Slovenia and SSH increased and the decline in 2020 was mainly due to the tightened economic situation as a result of the epidemic. The companies in the tourism sector were worst struck by the crisis, while the least affected were the pharmaceutical industry and telecommunications. Due to increased demand and favourable market conditions (applying to the pharmaceutical industry and certain companies), the portfolio's ROE increased by 1.8 p.p. to 6.1% in 2021, with improved profitability in all pillars except the energy sector. In 2022, the amount of dividends paid (for the 2021 financial year) increased significantly to an estimated EUR 182.9 million, with the largest share going to companies in the financial pillar, especially insurance companies. The six largest dividend payers paid 83% of all dividends (SSH, 2022b).[299] At the end of 2022, the total assets of BAMC and all associated rights and obligations were transferred to SSH. This gives SSH new responsibilities, namely the administration of claims and the administration of immovable and movable property.

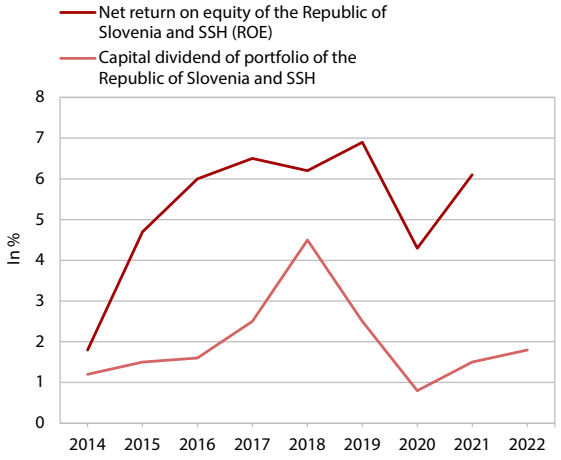
[296] There are obstacles both for employers who want to hire foreigners and for employees who come to Slovenia for work.

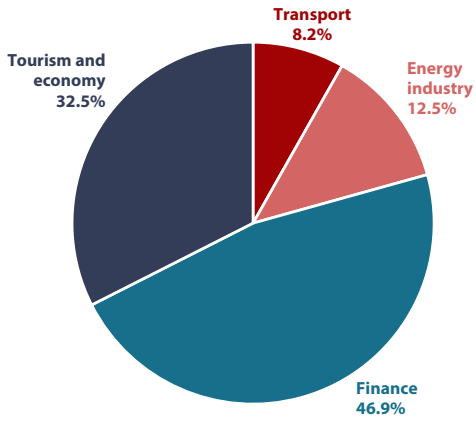
[297] State-owned assets are classified into strategic, significant and portfolio assets on the basis of predefined criteria set out in the State Assets Management Strategy (OdSUKND, 2015).

[298] In 2016, the top ten companies accounted for 61% of the portfolio's book value.

[299] The six above-mentioned companies represent 22.8% of the portfolio's book value, with an average ROE of 11.2% in 2021.

Figure 77: Returns on equity in state ownership have increased with the post-epidemic economic recovery (left); almost half of the dividend payments for the 2021 financial year were made by companies in the financial pillar (right)





Source: SSH (2022b).

5.2 A trustworthy legal system

A trustworthy legal system (Development Goal 10):

The legal system is of significant national and strategic importance for the protection of the rights of citizens, economic development and prosperity, given the fact that all social systems and subsystems are highly dependent on it. The goal is to create a legal system that provides a high-quality and efficient legal framework. Key factors of trust in the legal system listed by the SDS 2030 include the protection of human rights, fundamental liberties and equal opportunities, clear procedural and substantive legislation, concern for the independence, efficiency and transparency of the judiciary, and the elimination of the causes of corruption.

Performance indicators for Development Goal 10:

	Latest data		Target value for 2030
	Slovenia	EU average	
Rule of law index, ranking among EU Member States	19th (data for 27 EU Member States) (2022)	–	Ranking in the top half of EU Member States
Estimated time to resolve civil and commercial court cases, number of days	350 (2020)	294 (2020)	200

Some progress has been made in the field of the rule of law in Slovenia, although certain shortcomings remain. In the 2022 Rule of Law Report, the EC (2022s) notes progress in some areas of the rule of law, particularly with regard to the quality and efficiency of the justice system and certain measures taken in the fight against corruption. Shortcomings were identified in several areas, however, and the EC issued recommendations on the independence of the judiciary, further anti-corruption measures (preparation of a new anti-corruption strategy, autonomy of the National Bureau of Investigation), compliance with European standards on media freedom and protection of journalists, and guarantees for the budgetary autonomy of independent bodies. In recent years, the numbers of applications lodged before the European Court of Human Rights (ECHR) and violations found have no longer deviated from the EU average. After the start of the epidemic, the number of applications lodged with the ECHR increased again,[300] but these mainly concerned containment measures (ECHR, 2023). The Ombudsman (2022) also drew attention to the independence of state institutions and the implementation of Constitutional Court and ECHR decisions. Progress was made in the implementation of ECHR decisions – at the end of 2021, only five decisions were outstanding, while 23 Constitutional Court decisions had not been implemented (Government of the RS, 2022c).

Trust in the rule of law[301] and the judiciary remains relatively low. Over the period 2016–2020, trust in the rule of law remained stable, at around the EU average, while it fell below the average according the latest survey in 2022 (Indicator 5.3). Slovenia is thus still far from its SDS 2030 target. International comparisons show that some indicators of trust in the rule of law in Slovenia have deteriorated slightly, according to the latest measurements (Kaufmann and Kraay, 2022; World Justice Project, 2022), which we attribute mainly to dissatisfaction with the containment measures taken during the epidemic. On the other hand, the perception of the independence of the judiciary has improved slightly in recent years, though it is still below the EU average. Surveys point to perceived political interference in court decisions as the main reason and to the interference with or pressures on the courts due to economic or other special interests (Eurobarometer, 2022a, 2022b). According to the latest survey, trust of court users in the courts has improved.[302] This is mainly related to the fairness of court decisions, the respectful treatment of people and the comprehensibility of decisions (FUDŠ, 2021).

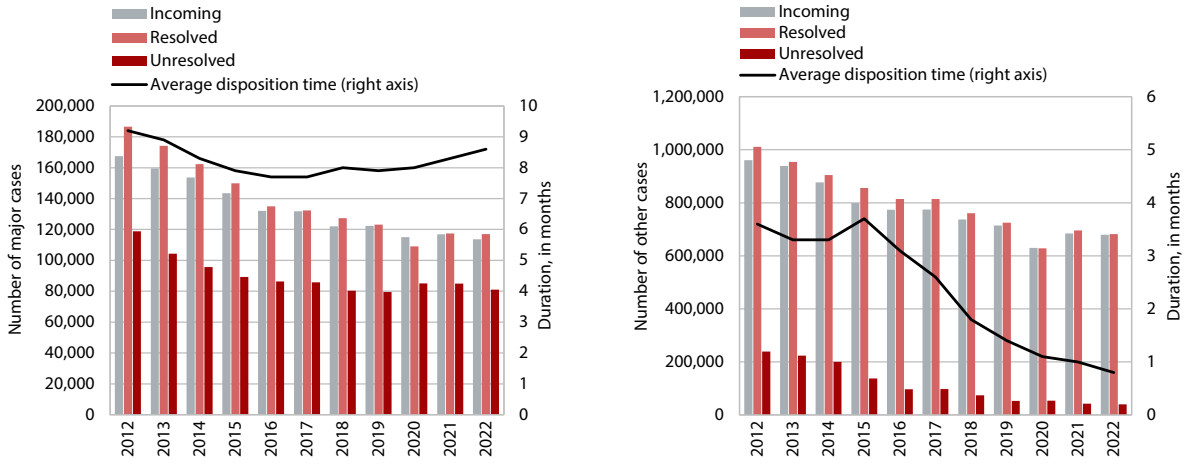
In 2022, the trend towards improving the efficiency of the judiciary continued, but the time needed to resolve major cases remains a challenge. Court statistics (Supreme Court, 2023a) show that the judiciary copes with the number of cases it receives and is reducing the number of pending cases. In 2014–2022, the number of pending cases at almost all courts dropped every year, while most courts, even though the number of judges and court staff declined, resolved more cases than they received. The only exception was 2020, when the activity of courts was limited due to the containment measures imposed during the epidemic. The average time taken to resolve all cases decreased significantly over this period,

[300] The vast majority of applications lodged with the ECHR were declared inadmissible.

[301] The bedrock of people's trust in the legal order and respect of legislative provisions is clear, understandable, transparent and unambiguous legislation, while people's trust in the legal system and the rule of law also depends on the enforcement of rights in practice, the duration of administrative and court proceedings, accessibility to legal remedies, and the predictability and stability of legal standards.

[302] In 2021, 41.9% of users trusted the courts, which is a significant increase (+13.5 p.p.) compared to the previous 2019 survey. The proportion of those undecided also increased, while the proportion of those who do not trust the courts decreased.

Figure 78: While court efficiency has improved in recent years, the disposition time for major cases has increased (left); the disposition time for other cases* has decreased significantly (right)



Source: Supreme Court (2023a, 2023b). Note: * Land registry, enforcement and other matters.

but the time required for adjudication of major cases has lengthened in recent years (the number of pending major cases decreased while their age increased).[303] The Administrative Court still had the biggest problem with efficiency, as the average disposition time for major cases was too long and has increased in recent years (by 2 months to 16.8 months in 2022), while at the same time, it resolved fewer cases in recent years than came in. At the Administrative court, the disposition time is also influenced by the nature of the disputes, which do not allow for faster dispute resolution, and by delays related to decisions of the Constitutional Court (Constitutional Court, 2023a). The new competences given to the courts and the shortage of staff have had a significant impact on the efficiency and length of proceedings. The number of judges per 100,000 inhabitants has been declining since 2012, but despite the decline, it remains one of the highest in the EU. In order to relieve judges of non-judicial work, the ratio of judicial staff to judges also slightly increased[304] (Constitutional Court, 2023b). Compared to other EU Member States, the expected duration of civil and commercial proceedings at first instance is longer and has even increased in recent years, widening the gap with the SDS target. Legal proceedings related to money laundering are among the lengthiest in the EU (925 days in 2020) (EC, 2022aa). In April 2023, the Act Amending the Administrative Dispute Act (ZUS-1C) was passed; this regulates hearings by a single judge and some other procedural solutions that will help speed up proceedings. The amendment will also result in the recruitment of new judicial staff.

The quality of the Slovenian judiciary is comparable with other EU Member States. This includes, in the strict sense, the quality of court decisions (e.g. the appropriate structure and procedures, the merits of judgements and the legal bases used) and, in the broad sense, also the provision of judicial services. Quality is also influenced by various factors, such as the use of ICT and financial and human resources. As part of the Procedural Justice project, the judiciary has established a comprehensive communication system that enables its users to obtain the information they need in simple and comprehensible language; the system is intended for anyone who contacts the courts. Court users' satisfaction is also increasing, especially in terms of the disposition times and the clarity of court documents (FUDŠ, 2021). According to the EC (2022s, 2022aa), information and communication technologies (ICT) for case management are advanced and widely used,[305] and compared to other countries, Slovenia has very well-regulated monitoring and evaluation of court activities and transparent standards of efficiency. The COVID-19 epidemic and the limited activity of the courts during it have shown the need to improve the tools for electronic communication between courts, prosecutors and clients, which is why the digitalisation of the judiciary has been accelerated in the last two years (EC, 2022s). Within the framework of the proposed legal acts, the EC provides for a complete and comprehensive digitalisation of existing (cross-border) judicial cooperation, which should also have an impact on the further digitalisation of justice in Slovenia. Regarding the quality of the judiciary, the EC (2022s) also mentions a cut in funding for the operation of the courts, the state prosecution and the Judicial Council in 2022, while the Supreme Court (2023a) estimates that the planned increase in 2023 will not cover all the courts' obligations. Government expenditure on the operation of the justice system (in EUR per inhabitant) was among the highest in the EU in 2020 (latest available internationally comparable data) (EC, 2022aa).

[303] The Supreme Court warns, however, that excessive shortening of the duration of procedures may jeopardise parties' right to be heard and the right to a fair trial.

[304] [27] In 2012, there were 3.4 judicial staff per judge; the number had increased to 3.7 by 2022.

[305] Slovenia is among the best-ranked EU Member States in terms of the availability of online information about the judicial system for the general public and in terms of e-court proceedings in civil cases.

The perception of corruption remains relatively high and has increased slightly in recent years. The evaluation (perception) of corruption reflects the performance of institutions of the rule of law, public sector integrity and the quality of public sector management. The Eurobarometer (2022d, 2022c) survey shows that the perception of corruption among the population and businesses is widespread in Slovenia and is estimated to have increased in the last three years. Respondents also believe that corruption in Slovenia is a consequence of the mixing of business and politics and that high-profile and large-scale corruption cases are not adequately sanctioned. An international comparison by Transparency International (2023) showed that the perception of corruption[306] has slightly increased in recent years and especially during the COVID-19 epidemic and remained above the EU average (Indicator 5.5). According to the Commission for the Prevention of Corruption (CPC, 2021), the number of reports of corruption increased during the epidemic, in particular in relation to suspicions of irregularities in the procurement of medical equipment.[307] Most of the proceedings initiated and decisions issued in recent years relate to conflicts of interest and incompatibility of functions (CPC, 2021, 2022a). The EC (2022s) noted that the number of criminal investigations of and indictments on alleged corruption in 2021 dropped to their lowest level in recent years and that none of the judgements on corruption delivered involved cases of high-level corruption. The EC and the OECD have expressed concern about the independence of the National Bureau of Investigation and attempts at political interference in its work (EC, 2022s; OECD, 2021c).

Slovenia has achieved satisfactory results in implementing the recommendations of the fifth country assessment on corruption. The fifth evaluation round of the Group of States against Corruption (GRECO) included recommendations and assessed corruption prevention and the promotion of integrity in central governments (top executive functions) and law enforcement agencies, including the achievement of certain core standards in this area (CPC, n.d.). The GRECO (2023) review found that of the 15 recommendations made to Slovenia in the areas of preventing corruption and strengthening integrity, five have been satisfactorily implemented, six have been partly implemented and four have not been implemented. In recent years, several measures have been adopted to improve the integrity of institutions, public employees and holders of public office and increase the transparency of public sector operations. In the area of legislative regulation, the Act Amending the Integrity and Prevention of Corruption Act was adopted in 2020, aiming, among other things, to provide tools for more effective work of the Commission for the Prevention of Corruption[308] and delimit the competences of the police and authorities for the prosecution of criminal offences of corruption, strengthen the rules on lobbying and state officials after they leave office, and also expand the scope of control over the assets of state officials and their family members (ZIntPK-C, 2020). The Whistleblower Protection Act was also passed in 2023; this introduces systemic mechanisms for reporting violations of applicable regulations and protecting whistleblowers and discourages retaliation against whistleblowers (ZZPri, 2023). A new national anti-corruption strategy, the lack of which was criticised by the EC (2022s), is also in preparation (CPC, 2023).

[306] The Corruption Perceptions Index showed that most of the 180 countries assessed have made no progress in the fight against corruption in the last ten years and that more than two-thirds of the countries score less than 50 (the range of score is between 0 and 100, with a score of 100 indicating that no corruption is perceived in the country). Of the EU Member States, three had a score below 50 at the last measurement (Romania, Bulgaria and Hungary) (Transparency International, 2023).

[307] Based on an investigation, the report on the thematic review (CPC, 2020) identified a number of corruption risks that need to be better managed in the future to ensure a more efficient and transparent implementation of procedures. The Commission for the Prevention of Corruption (CPC, 2022b) issued recommendations to the relevant institutions.

[308] Supervision of lobbying and regulation of the legal basis for the operation of the Erar application, clear and specific regulation of procedures applying to participants appearing before the Commission for the Prevention of Corruption, and extending the supervision of assets.

5.3 A safe and globally responsible Slovenia

A safe and globally responsible Slovenia (Development Goal 11):

The aim is to address the global challenges that Slovenia is facing, such as migration flows, terrorism, climate change and lack of respect for human rights. Some of the challenges also pose threats and risks to national security. Factors listed by the SDS 2030 as instrumental to strengthening global responsibility and solidarity include providing a high level of security, which includes providing protection against terrorist and other supranational threats (cyber threats included), promoting prevention, and strengthening the capacity for managing natural and other disasters. The SDS 2030 also draws attention to increasing foreign policy cooperation at the bilateral and multilateral levels and defence capabilities. Through international development cooperation and humanitarian aid, Slovenia contributes to a more balanced and fair global development and the eradication of poverty and inequality.

Performance indicators for Development Goal 11:

	Latest data		Target value for 2030
	Slovenia	EU average	
Share of population that reported crime, vandalism or violence in their area, in %	7.3 (2020)	10.7 (2020)	<10
Global Peace Index, rank	5th place (in the EU) (2022) 7th place (among 163 countries) (2022)	–	Ranking among the top five countries in the EU and top ten in the world.

Since its independence, Slovenia has been a member of the most important international organisations, working to maintain a stable international environment, security and human rights. In 1992, Slovenia joined the United Nations (UN), which is a uniform system established for dealing with global challenges in international peace and security, sustainable development, and human rights. For over a decade it has also been a member of the EU, its most important political and legal environment. The fundamental framework of institutional national security aside from the EU's common foreign and defence policy is NATO. Changes in the broader international environment affect both the EU and Slovenia, both grappling not just with important developmental, political and economic issues, but also with global security challenges.

Russia's attack on Ukraine in February 2022 has potentially major humanitarian, security and economic implications for the European region due to its geographical proximity. The international reaction was swift: in early March, the UN adopted by a large majority a resolution condemning the Russian aggression and calling for an immediate ceasefire and the withdrawal of Russian troops from Ukraine. Other international organisations also unanimously condemned the war. The aggression triggered a humanitarian crisis and a wave of refugees. By February 2023, some 12 million people had left their homes and over 8 million Ukrainians had sought refuge in neighbouring countries (UNOCHA, 2023). The attack also had an impact on geopolitical relations in the world, causing growing tensions between the EU and US and Russia (Moritsch, 2022) in particular and influencing the decisions of Finland and Sweden to become members of NATO (NATO, 2022). At the end of February, the EU, the US and several other major world economies responded to the aggression with massive financial and military aid to Ukraine and the imposition of comprehensive sanctions in order to isolate Russia financially and economically. The economic sanctions focus on the financial, transport, energy, trade, technology and defence sectors (G7 Germany, 2022; Council of the EU, 2023a; USDT, 2023). The war and sanctions have had a major impact in terms of uncertainty in the international environment. The consequences for international trade and Slovenian economic activity are mainly reflected in high prices for energy and some other commodities and in disruptions in supply chains.

5.3.1 Safety

Slovenia is one of the world's safest and most peaceful countries. The Global Peace Index shows that Slovenia ranked among the most peaceful countries in the world over the past decade, which is an SDS 2030 target, with Europe being the most peaceful region, at least before the start of Russia's aggression in Ukraine (see Indicator 5.7). In 2021, the number of criminal offences was the lowest in ten years, with a decrease in general, economic, juvenile and organised crime. The significant decrease in the number of criminal offences was mainly due to fewer general crimes,[309] influenced for the second year in a row by measures to contain the COVID-19 epidemic. In 2021, the number of thefts and grand thefts[310] was the lowest in five years. After being higher in 2020 than before

[309] The share of general crime in total crime has not changed significantly in the last ten years, fluctuating at around 85% (Police, 2022a).
[310] Theft and grand larceny are the most common forms of general crime.

the epidemic due to lifestyle changes, the number of domestic violence offences decreased in 2021 (see Section 3.3) and was below the five-year average (about 1,350 per year). The number of homicides and murders was also below the five-year average (Police, 2022a). In the first half of 2022, the number of crimes remained below the 10-year average but increased compared to 2021, especially for general and juvenile crime, homicide and murders (Police, 2022d).[311] In 2017, the standardised death rate due to assault in Slovenia was higher than in the previous five years and higher than in the EU (Slovenia: 1.1 per 100,000 inhabitants; EU: 0.7), but in 2019 (the latest available data) it fell to 0.4 (Eurostat, 2023). In 2018, the General Data Protection Regulation (GDPR) entered into force in the EU, expanding the protection of the rights of individuals with regard to their personal data, in particular in terms of information security, and in January 2023, the new Personal Data Protection Act (ZVOP-2) came into force.[312]

Slovenians felt safe in the country over recent years. The sense of personal endangerment of people in their living environment has remained low at all times. The results of the European Social Survey show that in 2020, the share of respondents who felt safe when walking alone in their neighbourhood at night remained high and also higher than the international average[313] (CJMMK, 2022). In 2020, the share of people who reported problems with crime, vandalism or violence in their living environment was the lowest ever (7.3%) and remained below EU average and within the SDS 2030 target (Eurostat, 2023). 10% of the respondents had a personal experience of burglary or physical assault, which is similar to previous years (CJMMK, 2022) (Indicator 5.6). The sense of safety also depends on people's trust in the police, which has been significantly higher over recent years than trust in other institutions in the country, though it declined markedly in 2021 and has remained below the EU average in 2022 and 2023.[314]

Natural and other disasters are among the constant sources of threat in Slovenia. Since 2013, the number of incidents has increased due to various circumstances, reaching a peak in 2017. Since then, the number of incidents has fluctuated considerably from year to year. The goals, policies and strategy for protection against natural and other disasters in the country are set out in the national programme for the 2016–2022 period, which was adopted in 2016.[315] In 2021, 500 natural disaster events took place in Slovenia and 18,251 other incidents[316] in which protection, rescue and relief personnel were engaged, in addition to other services (MO, 2022). Since 2013, the number of incidents has increased due to various circumstances, reaching a peak in 2017. Since then, the number of incidents has fluctuated from year to year. Compared to the previous year, the number of incidents increased in 2021, mainly due to a higher number of traffic accidents and events requiring technical and other assistance. Among natural disasters, strong wind and floods again caused the most problems and triggered most interventions, but there were far fewer of them in 2021 than in 2019.[317] Timely emergency response is ensured through emergency notification centres and public rescue services and by the preparedness of other rescue services, commissions and units and the Civil Protection Headquarters. The above-mentioned protection and rescue structures have also been actively involved in the implementation of activities related to the containment of COVID-19 (see IMAD, 2022e). The spread of infectious diseases among people was identified as one of the major risks in Slovenia in the disaster risk assessment process in the period 2015–2018.[318] Other potential sources of risk in Slovenia are earthquakes, aeroplane accidents, terrorism, frost and nuclear accidents, while the greatest risk comes from floods (URSZR, 2023). Climate change plays an increasingly important role in disaster risk assessment, as weather conditions influence the frequency and intensity of some disasters, especially natural disasters such as the Karst fires in 2022. The key challenge is to create a system that will facilitate effective coordinated action and contribute to the mitigation of damage and other consequences of natural disasters. Preventive measures are another important factor, in particular in spatial planning and management and in protection against fire and other natural disasters.[319]

After 2020, when the number of road fatalities was at an all-time low due to lower traffic volumes in the early stages of the epidemic, road safety deteriorated dramatically in 2021, though it improved again in 2022. Despite the increase in traffic volume (ITF, 2022), road safety has improved since 2010. There are several factors behind the improvement, including better

[311] Data for the first half of 2022 are compared with the data for the first half of previous years.

[312] The ZVOP-2 (2023) regulates certain substantive and procedural issues that the GDPR left to the Member States to regulate.

[313] The chart shows the total average result of the selected countries regardless of the size of the national samples or the size of the country (Austria, Bulgaria, Croatia, Czech Republic, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Lithuania, the Netherlands, Poland, Portugal, Slovenia, Slovakia, Spain and Sweden).

[314] In the winter of 2023, 61% of Slovenians trusted the police (EU: 70%). This is 4 p.p. more than in the last survey (June–July 2022), but 6 p.p. less than in the summer of 2020 (Eurobarometer, 2022f, 2023b). The lower confidence was also a consequence of the police controlling compliance with the containment measures, which caused increasing general discontent among the population.

[315] Resolution on the national programme for protection against natural and other disasters 2016–2022.

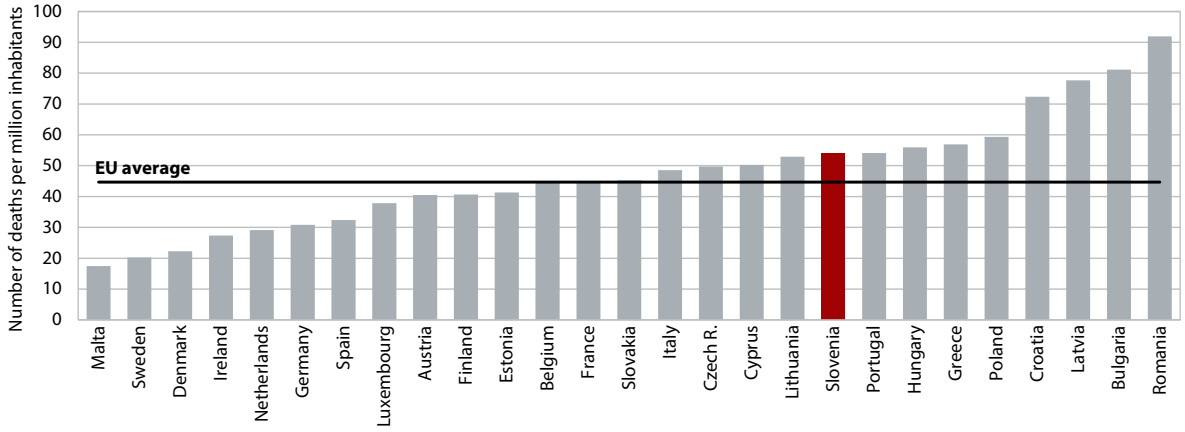
[316] These are traffic accidents, fires and explosions, pollution incidents, incidents involving hazardous substances, nuclear and other incidents, finds of unexploded ordnance, supply disruptions, damage to buildings, and other events that required technical and other assistance and unnecessary or false interventions.

[317] Compared to previous years, the number of interventions in natural disasters fell sharply in 2019 (fewer incidences of flood and strong wind).

[318] In the light of the experience with COVID-19, an amended national protection and rescue plan in the event of an infectious disease epidemic or pandemic in humans was adopted in July 2020 in order to better prevent the spread of infectious diseases.

[319] The measures are co-financed by EU funds under thematic area 2 of the Operational Programme for the Implementation of the Cohesion Policy (promoting climate change adaptation and disaster risk prevention and resilience, taking into account eco-system based approaches).

Figure 79: In 2021,* Slovenia recorded more road fatalities per million inhabitants than the EU average



Source: EC (2022x). Note: * The latest data for EU Member States are available for 2021.

transport infrastructure (e.g. motorway construction), safer cars and preventive measures (e.g. the reduction in the permitted blood alcohol level and education of young drivers). In 2021, Slovenia recorded 54 road fatalities per million inhabitants. This was the highest number in five years and again higher than the EU average (45 per million inhabitants). The number of road fatalities decreased by 17% (EU: 33%) in the 2010–2021 period and was much lower than before 2010.[320] In 2021, 114 persons died in road accidents, significantly more than in 2020, when the number of fatalities (80) was the lowest since records began.[321] This was mainly due to reduced traffic as a result of the COVID-19 containment measures (see AVP, 2021). Although the number of road fatalities fell to 85 in 2022 (AVP, 2023), this was still not enough to meet the strategic goal of the National Road Safety Programme.[322]

In 2020 and 2021, the number of illegal border crossings and organised crime offences decreased significantly due to the measures taken to contain the COVID-19 epidemic. Regarding national security, activities are primarily focused on ensuring the security of the national border, preventing, detecting and investigating organised crime, cybercrime and crime associated with firearms, and fighting terrorism. In recent years, the prevention of illegal border crossings has been one of the priority tasks of the police. The number of illegal state border crossings has increased since 2015, mainly as a result of increased migration from crisis areas, but decreased in 2020 and 2021. This was influenced by the restriction of mobility in connection with the management of the COVID-19 epidemic (Police, 2022a). In 2022, the number of illegal border crossings was the highest in ten years.[323] After several years of increase, the number of organised crime offences decreased in 2020 and 2021. This was mainly due to a decrease in the number of organised crime offences related to illegal crossing of the state border or territory, which together with offences related to illicit drug trafficking and doping in sport are the most common organised crime offences.[324] The number of criminal offences of illicit manufacturing of and trafficking in firearms remained at the level of the previous two years in 2021, and these criminal offences were dealt with mostly in connection with other forms of organised crime. The investigation of cybercrime showed that also in 2021, the highest number of criminal offences consisted of attacks on the information system, and new forms of cybercrime such as malicious computer codes and cryptojacking remain at the forefront (Police, 2022a). In the field of terrorism, Slovenia focuses on preventive action.

5.3.2 Global responsibility

Slovenia is among the best countries in the world and about average among EU Member States in terms of the achievement of the Sustainable Development Goals of the 2030 Agenda. In the context of the 2030 Agenda, Slovenia is striving to strengthen global responsibility and solidarity through the implementation of the Sustainable Development Goals (SDGs) (SVRK, 2017). According to an international comparison (Eurostat, 2022; Sachs et al., 2022), it ranks 15th out of 163 countries on the Sustainable Development Index[325] and 12th among EU Member States. These figures show that Slovenia has made progress on achieving most of the

[320] In those Member States where the number of fatalities is less than 100 or close to this number, significant annual fluctuations are observed, which means that the actual trend can only be identified over a longer period of time (EC, 2020e).

[321] The number of road fatalities also decreased in most EU Member States (EC, 2021e).

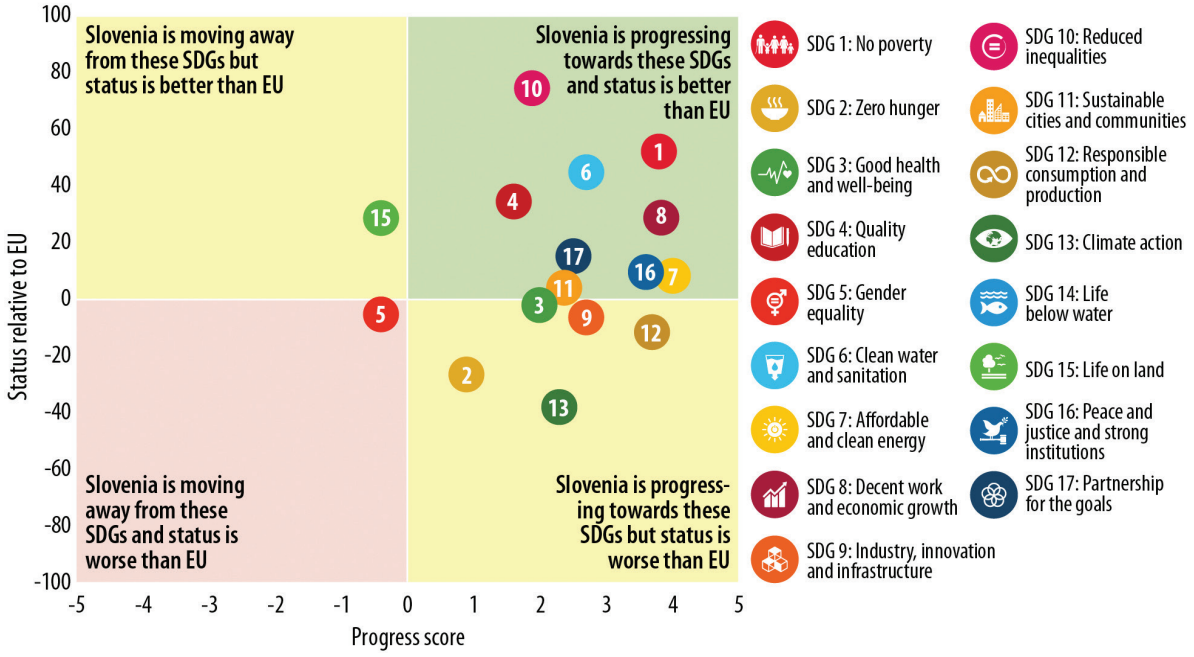
[322] Less than 70 fatalities and 460 serious injuries on Slovenian roads by the end of 2022 (ReNPVCP13-22, 2013). 861 road users were seriously injured in 2022 (AVP, 2023).

[323] The data do not include foreigners who came to Slovenia as part of the 2015–2016 mass migration (about 360,000 people). In 2021, 10,198 irregular border crossings were recorded, with the figure increasing to 32,024 in 2022 (mostly citizens of Afghanistan, Burundi and India) (Police, 2022b).

[324] In 2021, 338 organised crime offences were recorded, which is below the 10-year average (508) (Police, 2022a).

[325] Over 115 indicators are used in the index calculation, 85 of which are global and 30 are specifically defined for the OECD countries.

Figure 80: Slovenia has made progress on most of the Sustainable Development Goals (SDGs) set out in the 2030 Agenda over the last five years



Source: Eurostat (2022, 2023). Note: calculation for SDG 14 is not available. The progress score is based on the average annual growth rate of the indicator over the past five years, while the status score calculation for the EU is based on a min-max normalisation, where 0 corresponds to the EU average. Calculation methodology is described in Eurostat (2022). Eurostat (2022) data; updated individual indicators for Slovenia are also available on the SURS (2023b) website.

SDGs over the last five years in line with EU-level priorities (the European Green Deal, Digital Strategy and Action Plan on the European Pillar of Social Rights). According to the last measurement of the 17 SDGs, Slovenia achieved SDGs 1 (end of extreme poverty) and 8 (decent work and economic growth), but major challenges remain in SDGs 2 (achieve food security and improved nutrition and promote sustainable agriculture), 12 (responsible consumption and production), 13 (climate action) and 14 (life below water) (Sachs et al., 2022). In recent years, the country has moved slightly further away from achieving SDG 5 (gender equality), as the proportion of women in executive positions has decreased. The country has also moved away from achieving SDG 15 (life on land) due to the deterioration of farmland bird indicators (Eurostat, 2022; SURS, 2023b) (see also Chapters 3 and 4). The data at the regional level show that the Zahodna Slovenija cohesion region performs slightly better than the Vzhodna Slovenija cohesion region on most SDGs, and both regions perform better or about average on most SDGs among the OECD countries included in the analysis (OECD, n.d.).

Expenditure on official development assistance (ODA) has increased over recent years but remains well below internationally agreed commitments. In 2018, Slovenia adopted the Strategy of International Development Cooperation and Humanitarian Assistance of the Republic of Slovenia until the year 2030, which established a framework for strengthening bilateral development cooperation and determined orientations for action at a multilateral level and was also aligned with the implementation of the 2030 Agenda (MZZ, 2018). The share of ODA expenditure increased from 0.13% to 0.19% of GNP in the 2010–2021 period and by around 116% in nominal terms, i.e. to EUR 98 million. In 2020 and 2021, the share increased slightly but remained well below the internationally agreed commitments,[326] imposing on Slovenia the obligation to strive towards increasing official development assistance to 0.33% of GNI by 2030 (MZEZ, 2023c). With humanitarian aid to Ukraine and support for refugees, this amount is expected to have increased in 2022. The structure of assistance in the last two years was significantly affected by the COVID-19 pandemic, with a stronger focus on implementation on activities in line with the partner countries' needs to cope with the pandemic, and this was associated with an increase in emergency and humanitarian aid. In this context, the bulk of assistance in 2021 consisted of vaccine donations, which fall under development aid in the narrower sense (MZEZ, 2023c). The majority of assistance (around two-thirds) is multilateral assistance in support of EU development policies, while in recent years Slovenia's available bilateral assistance to priority geographical areas and thematic areas has slightly increased (Indicator 5.8). This was in line with the OECD recommendations (2020c), as the share of assistance to the ten main partner countries increased from around 50% in 2015 to about 75% in 2021.

In recent years, Slovenia has been actively engaged at the EU and global level. The Slovenian Presidency of the Council of the EU, which was a key government

[326] The Resolution on International Development Cooperation and Humanitarian Assistance of the Republic of Slovenia, 2017.

project in the previous term, took place in the second half of 2021. The most important achievements of the Slovenian Presidency were progress in adopting legislation on digital services and digital markets, strengthening the European Health Union, and recovery and resilience-building after the COVID-19 pandemic (MZZ, 2022c). In recent years, bilateral political dialogue with the US has resumed at the highest level, cooperation with neighbouring countries has continued (e.g. energy and infrastructural connectivity, on national minority issues, and the enlargement process towards the Western Balkans) and cooperation with Central European countries has deepened, especially in the context of dealing with the COVID-19 pandemic. In multilateral fora and organisations, Slovenia has focused on a narrow range of issues that provide value added and visibility (e.g. human rights, especially children's rights, gender equality, human rights in the context of new technologies, the rights of older people, and the right to a healthy, safe and clean environment). In line with the guidelines to strengthen its active role in the UN (MZZ, 2021), it became a member of the UN Economic and Social Council in early 2023. The Council coordinates the economic, social and environmental dimensions of sustainable development (MZEZ, 2023e). Activities were also stepped up in connection with the Slovenian candidacy for non-permanent membership of the UN Security Council (UNSC)[327] for the 2024–2025 period (MZZ, 2022a), which is currently a foreign policy priority. Several Ambassadors-at-Large (for the future of Europe, institutional EU matters, the UN Security Council and the Western Balkans and for climate diplomacy and water diplomacy) cover some of the strategic areas of Slovenian foreign policy (MZEZ, 2023d). A new foreign policy strategy to redefine foreign policy priorities[328] in the changed international context after one year of Russian war in Ukraine, allowing for organisational modernisation of diplomacy and support for a feminist foreign policy,[329] is being prepared (MZEZ, 2023a, 2023b).

Due to the geographical proximity and the economic, social and political interdependence both in Europe and globally, the war in Ukraine has a significant impact on the formulation of the EU's common foreign and security policy and thus also on Slovenian foreign policy. The start of the war coincided with the final preparations for the adoption of the Strategic Compass, which set out guidelines for the development of European defence and security, crisis management, capability development, partnerships and resilience. It foresees a number of rapid actions whenever a crisis erupts (e.g. development of an EU rapid deployment capacity) and includes measures to enhance the ability to anticipate threats, guarantee secure access to strategic domains and protect the citizens of the European Union (EEAS, 2022). In particular, in response to the Russian invasion, an EU Military Assistance Mission in support of Ukraine[330] was established at the EU level to strengthen the military capabilities of the Ukrainian armed forces (Council of the EU, 2022), and funding under the European Peace Facility was increased (Council of the EU, 2023b). After the outbreak of the war, Slovenia condemned the Russian aggression, especially the attacks on civilians and the destruction of important critical infrastructure. By providing humanitarian and military assistance and welcoming refugees,[331] Slovenia showed full solidarity with Ukraine and its people. Slovenia supported Ukraine's position as a candidate for membership of the European Union and all the sanctions packages adopted so far against Russia and Belarus and draws attention to the call for accountability for war crimes and support for the country's comprehensive reconstruction (Government of the RS, 2023).

[327] In 2024–2025, the Eastern European regional group, to which Slovenia belongs within the UN framework, is assigned one non-permanent seat. Elections to the UN Security Council for the 2024–2025 period will be held in the UN General Assembly in June 2023. Slovenia was elected a non-permanent member of the UN Security Council in 1998–1999. It was also a candidate in 2012–2013, when Azerbaijan became a member after the UN General Assembly elections in October 2011.

[328] These include closer integration with core EU Member States, further diplomatic activity in the neighbourhood (Western Balkans and Mediterranean), and a greater emphasis on economic diplomacy.

[329] Feminist foreign policy advocates gender equality in all contexts. In its multilateral and bilateral relations within the EU, with third countries and in the multilateral context, it includes the active promotion of gender equality and measures to support the rights of women and girls (Lange, 2023; MZEZ, 2023b).

[330] On 17 October 2022, the Council adopted a decision establishing EUMAM Ukraine, with an initial duration of two years. It is intended to provide individual, collective and specialised training to Ukraine's Armed Forces and coordination and synchronisation of Member States' activities delivering the training.

[331] According to internationally comparable data (IFW Kiel, 2023), in 2022 (start of the war in Ukraine) Slovenia donated more than EUR 4.3 million in humanitarian aid to Ukraine, EUR 57 million in military aid (donation of military equipment) and EUR 53 million for the care of refugees.

Appendix 1 – Methodology for monitoring the at-risk-of-poverty or social exclusion rate in accordance with the EU 2030 Strategy

In 2021, Eurostat and the European Commission started to use a new methodology for the calculation of the at-risk-of-poverty or social exclusion rate in order to meet the EU 2030 targets. The new methodology within the EU-SILC survey has been used by EU Member States since 2015 and the results, summarised in the 2022 Development Report, were first published in 2021. The new methodology is not comparable to the old one, which included the data for 2005–2020 and was used in our previous reports. Of the three indicators comprising the at-risk-of poverty or social exclusion rate, only the at-risk-of-poverty rate remains unchanged with data available since 2005; the remaining two indicators were changed and are available from 2015. In 2021, the targets of the European Pillar of Social Rights Action Plan were also set based on the new methodology. The targets envisage reducing the at-risk-of-poverty or social exclusion by at least 15 million people (of which at least 5 million should be children) by 2030 in the EU; compared to the baseline year 2019 (see IMAD, 2021a). Slovenia plans to reduce the at-risk-of-poverty or social exclusion rate by at least 9,000 people, including at least 3,000 children, in accordance with the European Pillar of Social Rights, as set out also in the new Resolution on the national social assistance programme 2022–2030 (ReNPSV22–30, 2022).

The material and social deprivation rate and the severe material and social deprivation rate are measured by 13 deprivation items. In addition to the change in its name, i.e. *social deprivation* was added to *material deprivation*, 13 deprivation elements are measured for this indicator according to the new methodology. Seven new items have been added to the first six items, which had been measured under the old definition, while three old items were abandoned.[332] According to the new definition, the calculation of material and social deprivation now includes persons who are deprived in at least 5 of the 13 items, and the calculation of severe material and social deprivation includes persons who are deprived in at least 7 of the 13 items – they cannot afford to (Stare et al., 2022):

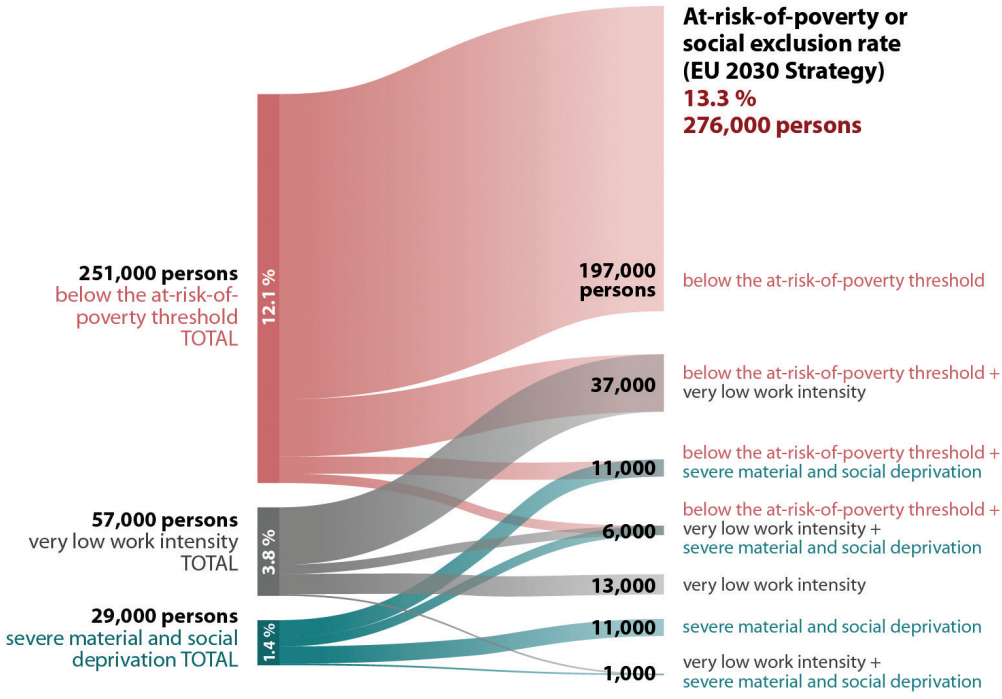
1) pay rent or mortgage, utility bills, or loan payments;
2) keep their home adequately warm;
3) face unexpected expenses;
4) eat meat, fish or a protein equivalent every second day;
5) take a week of holiday away from home;
6) have a car;
7) replace worn-out furniture;
8) replace worn-out clothes with new ones;
9) have two pairs of properly fitting shoes;
10) get together with friends/relatives for a drink/meal at least once a month;
11) have regular leisure activities;
12) spend a small amount of money each week on him/herself ("pocket money");
13) have an internet connection.

According to the new definition, very low work intensity is now measured for the population under 64 years of age and the calculation method was also changed. According to the new methodology, the calculation takes into account the age group 0–64 years (previously 0–59 years) and does not include certain groups that are not active in the labour market: (a) households only including students (current activity status) aged 18–24 years; (b) persons over 64 years; (c) pensioners (self-defined current activity status) or persons receiving a pension (excluding survivor's pension), and (d) inactive persons (self-defined current activity status) aged 60–64 years living in a household where pensions constitute the main income source (excluding survivor's pension) (Stare et al., 2022).

Due to the alternative methods of measuring social exclusion in the EU introduced as a result of the COVID-19 epidemic, the results since 2020 are not fully comparable between countries and for individual countries. The COVID-19 epidemic occurred in 2020, when the EU-SILC was being conducted. The survey was therefore temporarily interrupted in many Member States and subsequently completed using new data collection methods. In Slovenia, the first part of the survey was conducted before the epidemic (in the first two months of 2020), while the second part was conducted later than usual and by means of telephone surveys (see Inglič et al., 2021; Stare et al., 2022). The epidemic also prevented the collection of data by the usual means in 2021. Data were collected only by Computer-Assisted Telephone Interview (CATI). Mainly due to the unavailability of telephone numbers in public databases, the sample was greatly increased and the response rate was considerably lower than in previous years, when data for first interviewing were collected by SURS by computer-assisted personal interviewing (CAPI). The data collection period was also longer than in previous years (from February to the end of September). Due to the mentioned special circumstances, the data are not fully comparable with the data from previous years (Stare et al., 2022). Many Member States introduced even greater methodological changes (because they did not use administrative and other data, such as SURS), so Eurostat and the national statistical offices point out that the data for 2020, 2021 and 2022 are not fully comparable with previous surveys, either on a country basis or between countries. Even before the epidemic, the EU-SILC survey was considered to have some

[332] These items were having a colour TV, having a telephone (mobile phone) and having a washing machine.

Figure 81: The EU-SILC 2022 at-risk-of-poverty or social exclusion rate (based on 2021 income) and its structure*



Sources: SURS (2023h), EU-SILC 2022 (based on 2021 income). Note: * Some calculations do not add up to total due to rounding (Intihar, 2023b).

shortcomings, because it did not adequately cover the most vulnerable and often marginalised groups, such as the homeless, people in institutions, migrants and ethnic minorities, as well as the richest (Guio et al., 2021; Stiglitz et al., 2018; IMAD, 2021a; UN, 2021). Therefore the results of the survey need to be complemented by qualitative research and closer monitoring of the situation of households and individuals by the line ministry and other competent authorities and by the non-governmental sector.

Indicators of Slovenia's development

1 A highly productive economy that generates value added for all

Economic stability

A competitive and socially responsible business and research sector

Gross domestic product per capita in purchasing power standards 1.1

Slovenia has further narrowed the gap with the EU average in terms of economic development as measured by GDP per capita in purchasing power standards (PPS). With 32,500 PPS, Slovenia reached 92% of the EU average in 2022, which is 2 p.p. more than in 2021 and 1 p.p. above the highest value reached before the global financial crisis in 2008. A decomposition of GDP per capita into productivity and employment rate shows that the narrowing of the gap in economic development with the EU average since 2016 was initially supported by a relatively faster increase in the employment rate compared to the EU average and, in recent years, by productivity growth. The employment rate in Slovenia was above the EU average every year and exceeded it by 7% in 2022. However, productivity is still relatively low (86% of the EU average in 2022; see also Indicator 1.9).

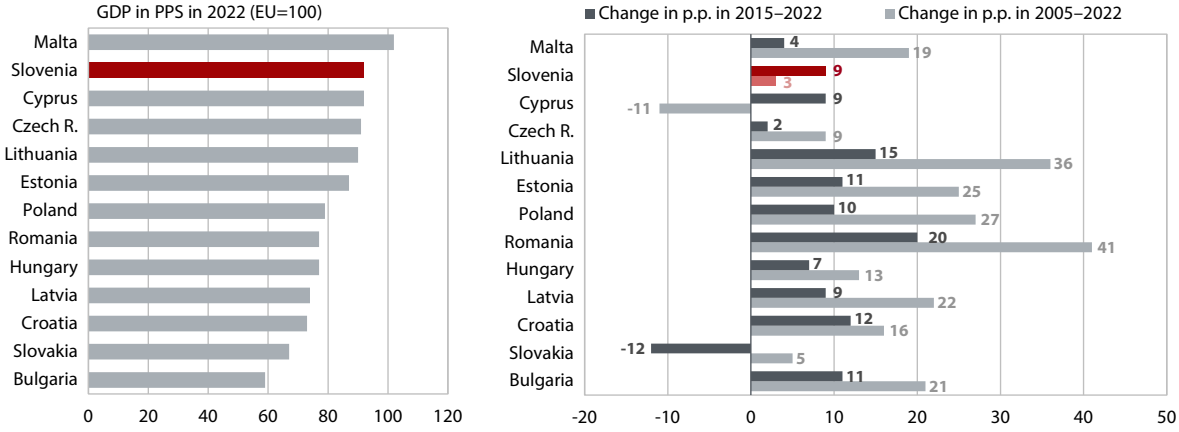
Slovenia's position relative to the average level of development in the EU improved by 3 p.p. in 2022 compared to 2005, while all other new EU Member States, with the exception of Cyprus, have made considerable progress during this period. Compared to 2005, 15 Member States improved their position relative to the EU average, most notably Ireland (83 p.p.), Romania (41 p.p.) and Lithuania (36 p.p.), while 12 Member States moved away from the EU average over this period, most notably Greece (27 p.p.), Spain (18 p.p.) and Italy (16 p.p.). However, when comparing a shorter period, i.e. since 2015, Slovenia advanced by 9 p.p., showing an accelerated convergence towards the EU average over the last seven years. In the same period, the greatest progress was made by Ireland (53 p.p.), Romania (20 p.p.) and Lithuania (15 p.p.), while the largest deterioration occurred in Luxembourg (21 p.p.), Slovakia (12 p.p.) and Sweden (9 p.p.). Luxembourg was 161% above the EU average in 2022, followed by Ireland, which gained 15 p.p. last year to reach 234% of the EU average. The gap in the GDP per capita indicator in PPS between the EU Member States narrowed from 1:9.3 (Romania/Luxembourg) in 2000 to 1:4.7 (Bulgaria/Luxembourg) in 2022.

Table: GDP per capita in purchasing power standards (EU=100)

	2000	2005	2008	2014	2015	2016	2017	2018	2019	2020	2021	2022	SDS 2030 target
Slovenia	81	89	91	83	83	84	86	87	89	89	90	92	100
Innovation leaders	131	127	128	125	124	122	122	121	120	124	124	123	
New Member States excluding Slovenia	52	62	68	71	73	73	75	76	78	79	80	81	
Austria*	133	130	127	132	131	130	127	127	126	125	123	125	
Italy*	122	112	108	98	97	99	98	97	97	94	95	96	
Germany*	124	120	118	127	124	125	124	124	121	123	120	117	

Source: Eurostat (2023); calculations by IMAD. Note: Innovation leaders: Sweden, Finland, Denmark, Belgium and the Netherlands. * Three economically developed countries that have strong economic ties with Slovenia.

Figure: Comparison of convergence to the EU average in terms of GDP per capita in PPS with 2022, from 2005 to 2022 and 2015 to 2022 for new EU Member States, in percentage points (EU=100)



Source: Eurostat (2023); calculations by IMAD.

Real GDP growth 1.2

After a sharp decline in 2020, GDP saw a strong rebound in 2021, exceeding pre-crisis levels, with robust growth continuing in the first half of 2022 before slowing, mainly due to the energy crisis. After the recession during the global financial crisis, economic growth mostly accelerated in 2014–2017 but then started to slow in 2018 and 2019, mainly due to a slowdown in foreign demand and uncertainty regarding international trade and geopolitical relations. In 2020, all GDP components, with the exception of government consumption, declined due to the epidemic and related restrictions. With a strong rebound, economic activity exceeded pre-epidemic levels in 2021. This was mainly due to private consumption supported by government measures and a significant drop in the savings rate. In 2022, the strong growth stemmed mainly from the first half of the year and the post-COVID-19 recovery, while the cooling of the international environment due to the war in Ukraine and the energy crisis, together with the inflationary impact on purchasing power, contributed to a significant slowdown by the end of the year. Amid the easing of containment measures and high employment, private consumption growth remained strong in 2022 as a whole. The growth of investment and construction activity was supported by public investment, which was also stimulated by EU funds. The slowdown in external demand growth, high inflation, cost pressures and high uncertainty related to the energy crisis had a marked impact on economic activity towards the end of the year, when the situation in the export-oriented part of the economy deteriorated significantly, while the growth in household consumption, private investment and trade in services slowed.

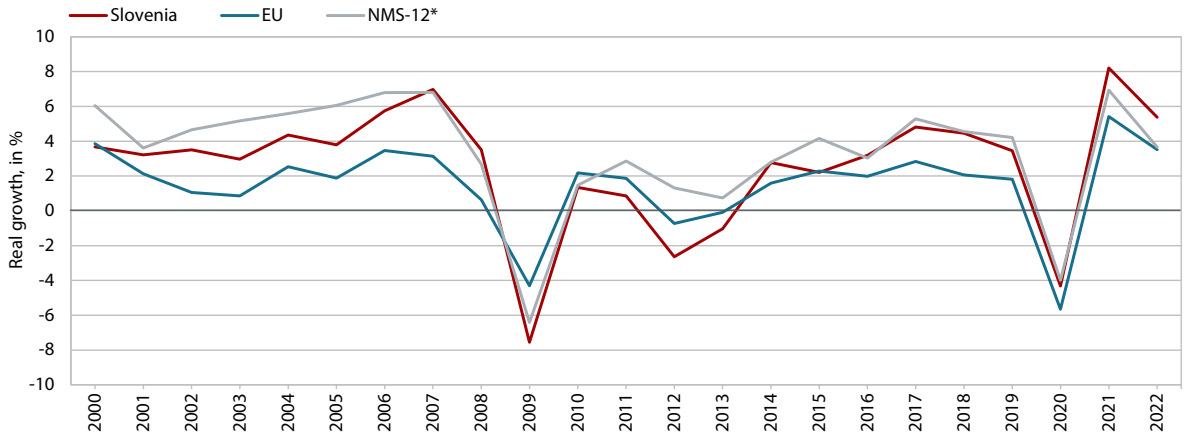
After several years of higher growth, the decrease in real GDP was lower than the EU average in 2020 and the recovery in 2021–2022 was stronger. Higher growth in 2022 (SI: 5,4%, EU: 3,5%) was a consequence of faster growth in almost all GDP components. In 2021 and 2022, GDP growth in Slovenia was also higher than the (unweighted) average of new EU Member States, while it was mostly lower after the global financial crisis.

Table: : Contribution of expenditure components to GDP change, Slovenia

	2000	2005	2008	2009	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Real GDP growth, in %	3.7	3.8	3.5	-7.5	-2.6	-1.0	2.8	2.2	3.2	4.8	4.5	3.5	-4.3	8.2	5.4
Domestic consumption	1.3	1.7	3.5	-9.1	-5.4	-1.8	1.2	1.6	2.8	3.6	4.6	3.2	-4.3	9.0	7.5
Private consumption	-0.1	1.1	1.5	1.1	-1.2	-2.3	0.9	1.1	2.4	1.0	1.9	2.8	-3.6	4.8	4.6
Government consumption	0.7	0.5	0.9	0.4	-0.5	-0.4	0.0	0.4	0.5	0.1	0.5	0.3	0.8	1.2	0.2
Gross fixed capital formation	0.7	0.9	2.0	-6.5	-1.7	0.7	0.0	-0.2	-0.7	1.8	1.9	1.0	-1.5	2.6	1.6
Change in inventories	0.1	-0.9	-0.8	-4.1	-2.0	0.2	0.3	0.3	0.6	0.7	0.4	-0.8	0.1	0.4	1.1
External trade balance (goods and services)	2.3	2.1	0.0	1.6	2.8	0.8	1.6	0.6	0.4	1.2	-0.1	0.2	0.0	-0.8	-2.1
Exports of goods and services	5.6	6.3	2.8	-11.0	0.3	2.2	4.5	3.6	4.8	8.6	5.1	3.8	-7.2	11.3	5.4
Imports of goods and services	-3.2	-4.1	-2.8	12.6	2.4	-1.5	-2.9	-3.0	-4.3	-7.4	-5.3	-3.6	7.2	-12.0	-7.5

Source: SURS (2023h).

Figure: GDP growth



Source: Eurostat (2023). Note: * Data for the NMS-12 represent an unweighted average for the new Member States (countries that have joined the EU since 2004), excluding Slovenia.

General government debt 1.3

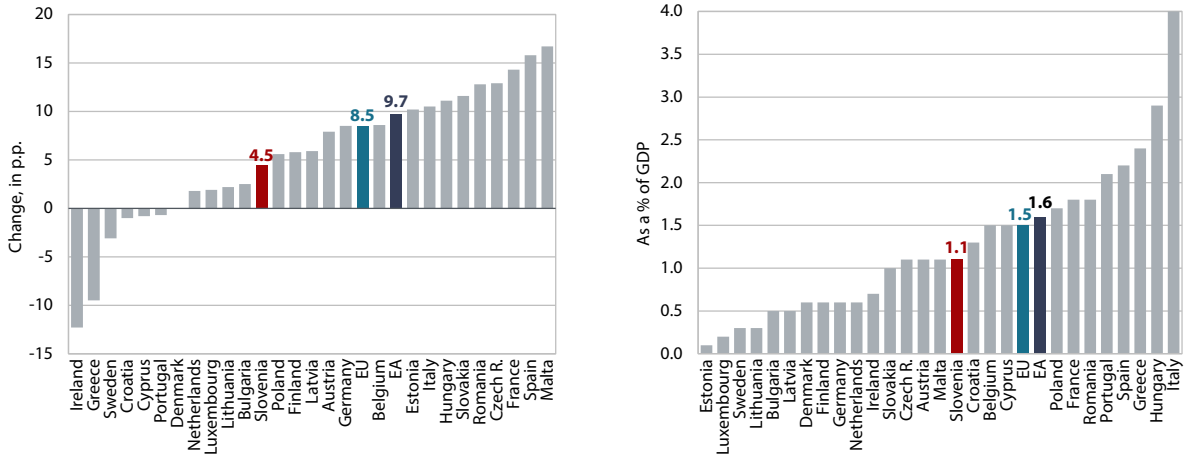
The government debt-to-GDP ratio fell to 69.9% in 2022 under the influence of economic recovery, high inflation and lower expenditure on measures to mitigate the consequences of COVID-19. The process of reducing the general government debt-to-GDP ratio after the pandemic began already in 2021, when, mainly due to the economic recovery and a reduction in general government cash reserves, debt fell by 5.1 p.p. compared to 2020, when it stood at 79.6% of GDP (the highest ratio since 2015) due to fiscal stimulus measures taken to mitigate the consequences of COVID-19 and the economic downturn. The debt ratio continued to decline in 2022 (to 69.9% of GDP), due to a sustained economic recovery, lower expenditure on measures to mitigate the consequences of the epidemic and high inflation. The increases in key interest rates by the ECB have led to a gradual increase in the required yields on government bonds in 2022, but this has not yet been reflected in interest expenditure in 2022 and will only have an effect in the longer term due to the long maturities of the debt.[1] Expenditure on interest was thus at a similarly low level last year (1.1% of GDP) as in 2021, with its contribution to debt accumulation being lower than the positive contribution of nominal economic growth. In 2019–2022, the increase in general government debt in Slovenia was among the lowest (4.5 p.p.) in the EU and below the euro area and EU average (by 9.7 p.p. and 8.5 p.p. respectively).

Table: General government debt, Slovenia

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	SDS 2030 target
in EUR billion	8.3	12.5	13.9	17.2	19.4	25.5	30.2	32.1	31.8	31.9	32.2	31.8	37.4	38.9	41.2	
As a % of GDP	21.8	34.5	38.3	46.5	53.6	70.0	80.3	82.6	78.5	74.2	70.3	65.4	79.6	74.5	69.9	60.0
Debt change, in p.p., of which	-1.0	12.7	3.8	8.2	7.1	16.4	10.3	2.3	-4.1	-4.3	-3.9	-4.9	14.2	-5.1	-4.6	
1. Primary balance	0.3	4.5	4.0	4.7	2.0	12.0	2.3	-0.4	-1.1	-2.5	-2.8	-2.4	6.1	3.4	1.9	
2. Snowball effect	-0.6	2.2	1.5	1.2	3.0	2.2	1.0	0.7	-0.2	-2.1	-2.6	-2.2	3.6	-6.5	-7.2	
- Interest payments	1.1	1.3	1.6	1.9	2.0	2.5	3.2	3.2	3.0	2.5	2.0	1.7	1.6	1.2	1.1	
- Effect of GDP growth	-0.7	1.7	-0.4	-0.3	1.2	0.5	-1.9	-1.7	-2.5	-3.5	-3.1	-2.3	2.9	-5.9	-3.6	
- Effect of inflation*	-1.0	-0.8	0.3	-0.4	-0.2	-0.9	-0.3	-0.8	-0.7	-1.1	-1.5	-1.5	-0.9	-1.9	-4.8	
3. Stock-flow adjustments**	-0.7	5.9	-1.8	2.3	2.1	2.2	7.0	2.0	-2.7	0.3	1.5	-0.3	4.4	-1.8	0.1	

Source: SURS (2023). Notes: * Measured by the GDP deflator. ** The change in the debt-to-GDP ratio that is not a consequence of the primary balance or the snowball effect (currency, deposits, loans and other liabilities). Some calculations do not add up to total due to rounding.

Figure: Change in the public debt-to-GDP ratio in 2019–2022 (left) and interest expenditure in 2022 (right) in EU Member States



Sources: EC (2022p) for EU Member States, SURS (2023) for Slovenia.

[1] Between 2013 and 2021, the average term to maturity of general government debt increased from 5.7 to 9.9 years due to the reduction of interest rates and active debt management (MF, 2023b).

Fiscal balance 1.4

The general government deficit fell to 3.0% of GDP in 2022 as measures to mitigate the consequences of the epidemic were phased out. The improvement in the government's fiscal position in 2015–2019 was interrupted in 2020 by the exceptional circumstances due to COVID-19, when the extensive measures to mitigate the consequences of the epidemic turned the 2019 general government surplus (of 0.7% of GDP) into a large deficit (of 7.7% of GDP). With the post-pandemic recovery and lower expenditure on measures to mitigate the consequences of the epidemic, the deficit fell to 4.6% of GDP in 2021 and 3.0% of GDP in 2022. With the slowdown in economic activity, revenue growth halved last year compared to the previous year (to 6.8%), with lower growth in tax and non-tax revenue, with the exception of government revenue from property. The slowdown was most evident in the growth of corporate tax revenue, which grew fastest of all tax revenues in 2021. Growth of revenue from personal income tax also slowed, reflecting lower wage growth and income tax relief. Lower levies related to the mitigation of the energy crisis[1] also contributed to the moderation in VAT and excise revenue. Expenditure growth was 3.8% (7.0% in 2021). The largest contribution came from increased transfers to individuals and households, driven by one-off household grants to mitigate energy poverty, investments and, amid high inflation, government expenditure on goods and services.

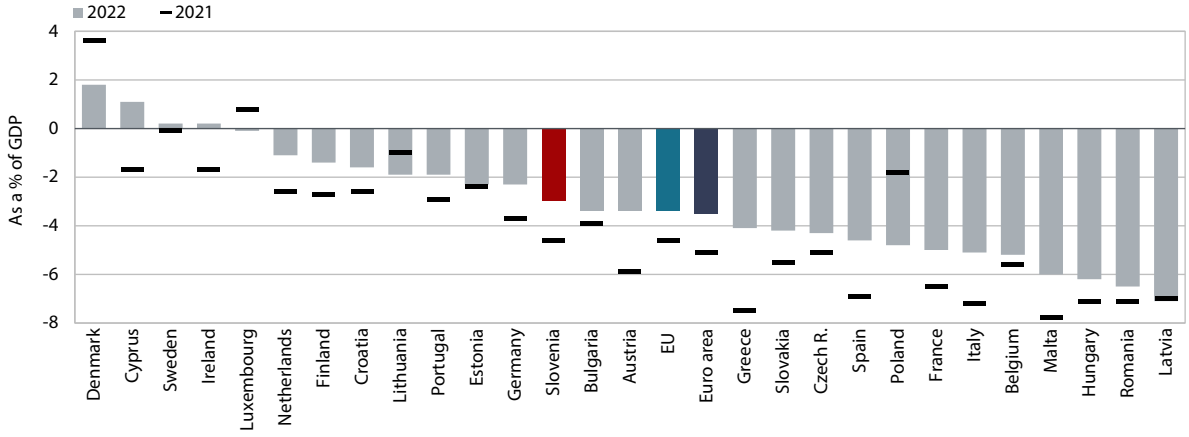
The deficit in the euro area fell from 5.1% of GDP in 2021 to 3.5% in 2022, according to the EC forecast. The deficit decreased in 2021 and 2022 due to improved economic conditions, similarly to Slovenia, and a lower impact of discretionary measures to mitigate the consequences of the epidemic. Nevertheless, fiscal policy remained expansionary in most euro area countries, largely due to measures to support the economy and the population in the face of high energy and food prices. Measures to mitigate the impact of rising prices (tax cuts, transfers to individuals, subsidies for energy and production, price caps on energy markets, and additional revenues from electricity sales) are estimated by the EC to have had a net impact on the general government deficit of 1.3% of GDP on average in the euro area in 2022, which is higher than the cost of measures to mitigate the consequences of the epidemic in that year (0.9% of GDP) (EC, 2022p). According to IMAD estimates, in Slovenia, measures to mitigate the impact of rising prices amounted to 1% of GDP last year, while measures to mitigate the impact of COVID-19 amounted to 1.2% of GDP.

Table: General government revenue, expenditure and balance, as a % of GDP

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Revenue	43.7	43.5	44.6	44.2	45.4	45.7	45.3	45.9	44.2	44.0	44.2	44.1	43.7	44.9	42.7
Expenditure	45.1	49.4	50.2	50.9	49.4	60.3	50.8	48.7	46.2	44.1	43.5	43.4	51.4	49.5	46.6
Balance	-1.4	-5.8	-5.6	-6.6	-4.0	-14.6	-5.5	-2.8	-1.9	-0.1	0.7	0.7	-7.7	-4.6	-3.0
Primary balance	-0.3	-4.5	-4.0	-4.7	-2.0	-12.0	-2.3	0.4	1.1	2.5	2.8	2.4	-6.1	-3.4	-1.9

Source: SURS (2023).

Figure: General government balance



Sources: EC (2022p) for EU Member States, SURS (2023) for Slovenia.

[1] Excise duties on energy and electricity, and VAT on energy were temporarily reduced in certain months and the environmental tax on CO_2 pollution was waived.

Current account of the balance of payments and net international investment position 1.5

After 10 years of surplus, the current account turned into a deficit in 2022 (of 0.4% of GDP). In 2012–2019, the current account surplus was supported by a favourable international environment and an increase in exporters' competitiveness amid modest import growth. In 2020, the epidemic led to a sharp increase in the current account surplus, which rose to its highest level ever (EUR 3.6 billion, i.e. 7.6% of GDP), mainly due to a severe domestic consumption shock and thus significant increase in private sector savings. The recovery in domestic demand and the deterioration in the terms of trade led to a significant decline in the surplus in 2021, which turned into a deficit in 2022, mainly due to the trade in goods. The volume effect contributed EUR 2.4 billion to the lower trade balance, which turned into a deficit in 2022, while the terms-of-trade effect contributed EUR 0.8 billion. The external price effect was the highest since 2010 last year. The services surplus was higher than a year ago, especially in trade in travel and transportation services. The narrowing of the savings/investment gap in the economy as a whole in 2022 was mainly due to a decline in net household savings, and investment activity also increased.

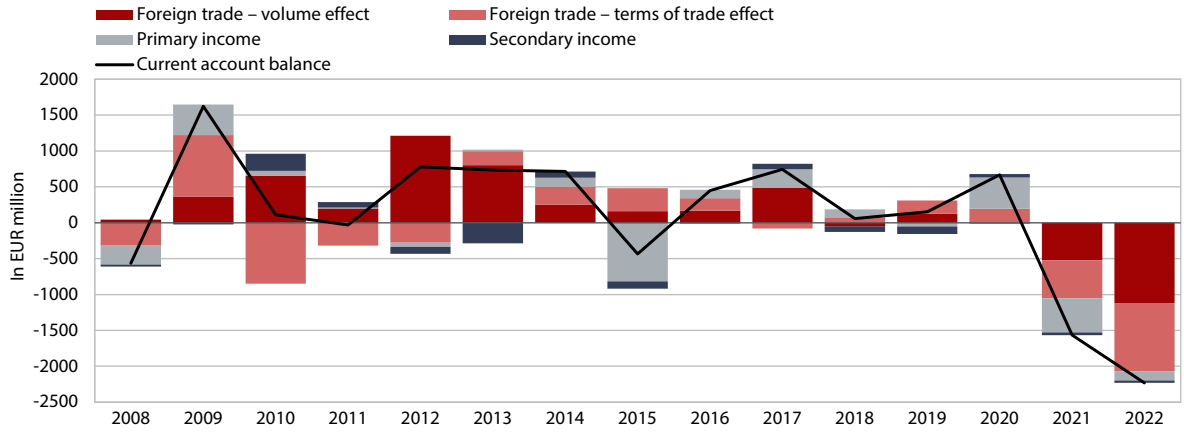
Slovenia's international investment position further improved in 2022 and recorded only a small deficit (0.6%). In relation to GDP, the decline in total liabilities was more pronounced than the decline in total claims. Compared to 2021, net outflows of general government financial assets were higher than the net inflows of the Bank of Slovenia and of the private sector. The general government sector significantly reduced its net foreign liabilities as the government repaid part of its debt to foreign portfolio investors and lowered its financial derivatives liabilities. The Bank of Slovenia increased its liabilities within the Eurosystem and its assets in the form of currency and deposits in foreign accounts, mainly reflecting its investment decisions in the face of rising interest rates on the international currency market. After several years of increase, the private sector decreased its financial investment in foreign securities, while non-financial corporations increased their net claims on short-term commercial credits, consistent with the growth in foreign trade in goods and services. Inward FDI flows have risen in recent years, on account of the sale of ownership stakes in domestic companies and capitalisations, and exceeded the outward FDI flows.

Table: Slovenia's international investment position, as a % of GDP

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1 Debt claims	75.9	74.0	74.1	75.3	75.3	87.6	88.4	85.4	82.9	82.9	88.1	102.1	99.9	94.2
2 Equity claims	21.5	22.2	21.1	22.3	22.5	23.6	27.7	26.9	25.5	24.7	27.4	30.9	33.0	29.5
3 Total claims (1+2)	97.5	96.2	95.2	97.6	97.7	111.2	116.1	112.2	108.4	107.6	115.5	132.9	132.9	123.7
4 Gross external debt	115.0	115.6	111.8	117.4	112.9	124.3	118.8	109.6	100.5	91.9	91.6	102.1	97.3	88.0
5 Equity liabilities	23.1	23.8	23.2	24.2	24.2	25.2	28.4	31.4	32.1	34.7	40.1	46.5	42.4	36.3
6 Total liabilities (4+5)	138.1	139.3	135.0	141.6	137.1	149.6	147.2	141.0	132.6	126.5	131.6	148.6	139.7	124.3
7 Net external debt/claims (1–4)	-39.0	-41.5	-37.7	-42.2	-37.6	-36.7	-30.4	-24.2	-17.6	-9.0	-3.5	0.0	2.5	6.3
8 Net equity debt/claims (2–5)	-1.6	-1.6	-2.1	-1.9	-1.7	-1.6	-0.7	-4.6	-6.6	-10.0	-12.7	-15.6	-9.3	-6.9
9 Net financial position (7+8)*	-40.6	-43.1	-39.8	-44.0	-39.3	-38.4	-31.2	-28.8	-24.2	-18.9	-16.2	-15.6	-6.8	-0.6

Source: BoS (2023b); calculations by IMAD. Note: * A negative (positive) sign in the balance concerned indicates a net debt (credit) external financial position.

Figure: Decomposition of changes in nominal current account balance, in EUR million



Source: BoS (2023b); calculations by IMAD.

Financial stability 1.6

The financial system remained stable amid the post-epidemic recovery, with a low share of non-performing claims in the banking system. The response of economic policymakers during the epidemic significantly limited the spillover of risks to the financial system, which thus remains able to provide financial support to the economy. The share of non-performing claims in total bank claims has fallen significantly in recent years and is only slightly above the EU average. In view of the rise in inflation and inflation expectations, the ECB decided last year to normalise monetary policy and to withdraw the non-standard measures taken in previous years and raise the key interest rates. Similar measures were also taken by other central banks in the non-euro area EU Member States. Consequently, the borrowing conditions for enterprises, households and the government are deteriorating in Slovenia and in the EU. Slovenia belongs to the group of peripheral countries that tend to react more quickly to a tightening of financial market conditions. Yields to maturity of government bonds were thus above the EU average again for the first time since 2016.

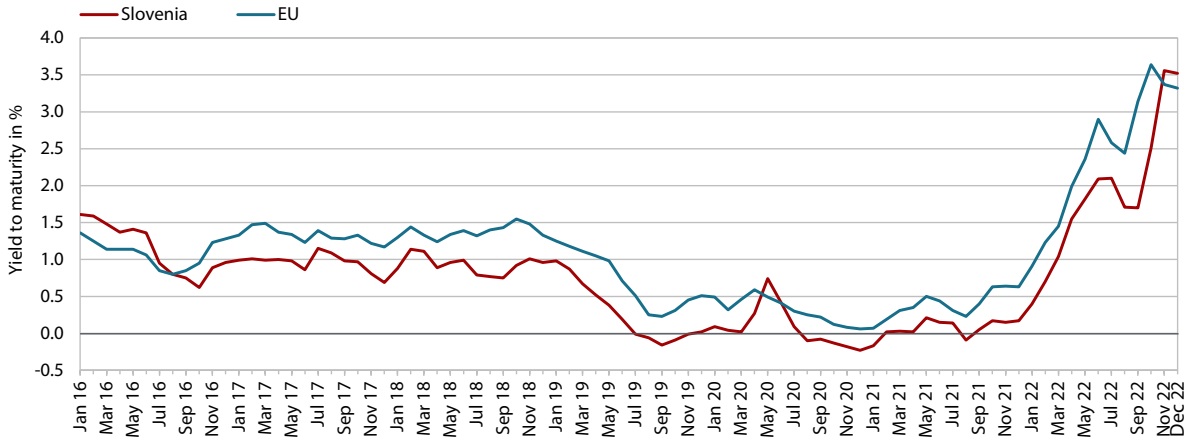
Banks remained highly liquid and well capitalised in 2022. Liquidity declined slightly in 2022 due to higher credit activity and the partial repayment of liabilities to the Eurosystem, though it was still high. The capital adequacy of the banking system deteriorated up to the third quarter of 2022 amid the increased lending activity, but it remained relatively high given the minimum capital requirements. Deposits from non-banking sectors decreased slightly in 2022 (by almost one-tenth, to EUR 2.6 billion) but were still sufficient to support the banking system's increased lending activity, which rose especially in the first half of the year in anticipation of tighter credit conditions. Nevertheless, banks' dependency on foreign bank financing increased slightly, though it was still relatively low (5.7% of the banking system's total assets). The share of foreign sources of funding increased, mainly due to a higher volume of debt securities issued, which we estimate has slightly improved the maturity structure of bank liabilities; short-term sources remained predominant (overnight deposits still accounted for almost 85% of total deposits in the domestic non-bank sector in 2022).

Table: Financial system stability indicators*

	2015	2016	2017	2018	2019	2020	2021	Q3 2022
Share of non-performing claims (in %)								
Slovenia	21.5	14.4	10.5	6.8	3.7	3.2	2.2	2.0
EU	5.8	5.1	4.1	3.2	2.7	2.6	2.0	1.8
TIER 1 capital adequacy ratio (in %)								
Slovenia	18.1	18.7	18.3	18.4	18.7	15.4	15.7	14.9
EU	14.8	15.5	16.3	16.3	16.7	17.2	17.1	16.3

Source: EBA (2023). Note: * Data refer to a sample of banks that changes annually. In 2022, 161 banks and bank branches were included, accounting for more than 80% of the EU banking system. According to the EBA definition, non-performing claims include not only arrears of more than 90 days, but also claims that meet the "unlikely to pay" criterion. Data up to 2019 also include the United Kingdom.

Figure: Yield to maturity of government bonds



Source: Eurostat (2023).

Financial system development 1.7

Slovenia's gap with the EU average in the level of financial system development remains wide and is growing. In 2022, the banking system's total assets increased only by 3.8% despite relatively strong lending activity, but the indicator of total assets as a share of GDP further decreased slightly amid strong economic growth. The relatively low growth in the balance sheet total was mainly due to lower liabilities and claims on the Central Bank (in 2022 by more than two-thirds or EUR 1.6 billion and by one-tenth or EUR 1 billion respectively). The indicator of total assets as a share of GDP thus reached about 30% of the EU average and was also more than a tenth behind the EU-13 average. The loan-to-deposit ratio, which had been declining since 2011, rose slightly in 2022 (to 0.70) but was more than half lower than in 2008, when it was at its highest. The gap with the EU average in terms of capital market development, measured by the stock market capitalisation-to-GDP ratio, widened in 2022. The market capitalisation of shares listed on the Ljubljana Stock exchange fell by almost a fifth in 2022, somewhat more than in the EU, against a background of negative capital market developments. A large part of the Slovenian capital market is represented by government bonds, while corporate financing via issuance of shares and bonds is still negligible compared to other sources of financing.

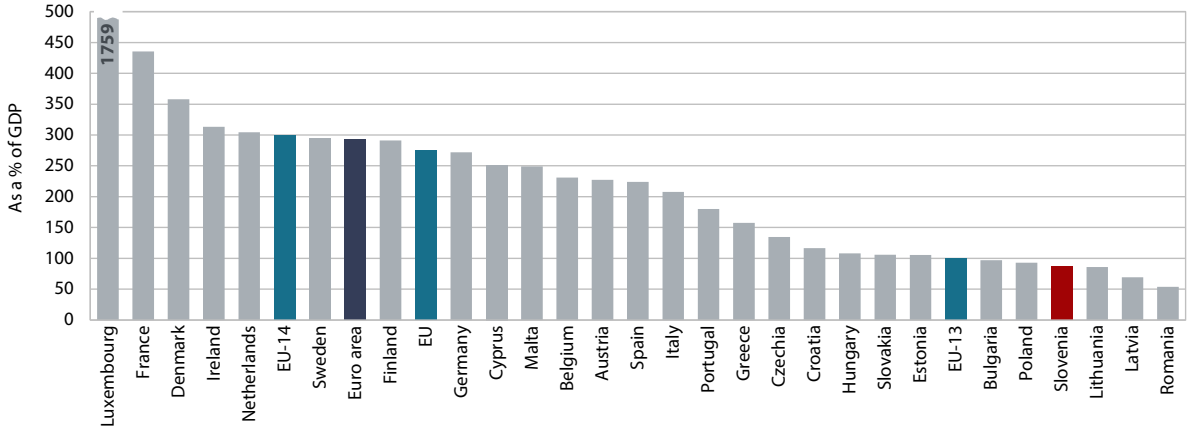
The development gap with the EU average in the insurance sector is smaller than in other segments of the financial system, though it widened slightly again in 2021. The value of Slovenia's insurance premium-to-GDP ratio was approximately two-thirds of the EU average. The large gap was due to more modest premium growth (1.5%) and above-average GDP growth. Non-life insurance premium growth was the lowest since 2015, at 2.7%, while the volume of life insurance premiums declined for the second year in a row. The volume of premiums in the EU increased by about one-tenth in 2021, mainly due to a 15% growth in the volume of life insurance premiums. As a result, the gap in life insurance widened, so that in this segment Slovenia now reaches only about a third of the EU average. The large volume of household deposits, which continues to grow, and low deposit interest rates could lead to a somewhat faster shift in household saving habits towards an increase in retirement savings, which could increase the share of life insurance and investments in the capital markets.

Table: Indicators of financial system development in Slovenia and the EU

In %	2000	2005	2008	2009	2010	2015	2017	2018	2019	2020	2021	2022
Banks' total assets, as a % of GDP												
Slovenia	84.5	103.5	129.2	147.3	145.8	107.1	94.0	88.6	88.2	98.2	94.6	87.0
EU	219.8	267.4	312.1	320.3	321.4	277.7	259.2	253.5	257.6	291.3	281.0	275.0
Insurance premiums, as a % of GDP												
Slovenia	5.0	5.3	5.3	5.7	5.8	5.1	5.1	5.1	5.2	5.5	5.2	
EU-24*		7.7	7.3	8.0	8.1	7.8	7.4	7.4	7.5	7.5	7.7	
Market capitalisation of shares, as a % of GDP												
Slovenia	17.7	23.0	22.3	23.3	19.3	14.2	12.3	13.8	14.6	14.7	18.2	12.9
EU	80.9	82.2	37.1	47.7	51.2	61.8	69.3	56.5	66.3	72.3	89.1	70.7

Sources: BoS (2023), ECB (ECB, 2023), SURS (2023h), Eurostat (2023), Slovenian Insurance Association (2022), Swiss Re (2022), Ljubljana Stock Exchange (2023), FESE (2023). Note: * The indicator of insurance premiums (as a % of GDP) does not include data for the Baltic states.

Figure: Total banking assets relative to GDP in 2022



Sources: BoS (2023a), ECB (2023), SURS (2023h), Eurostat (2023).

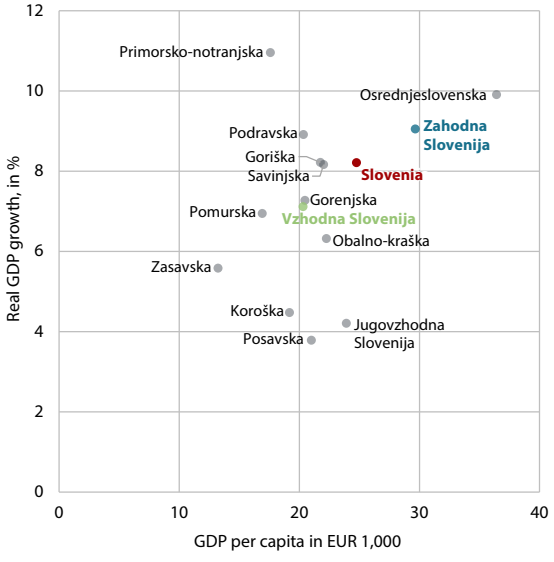
Regional variation in GDP per capita 1.8

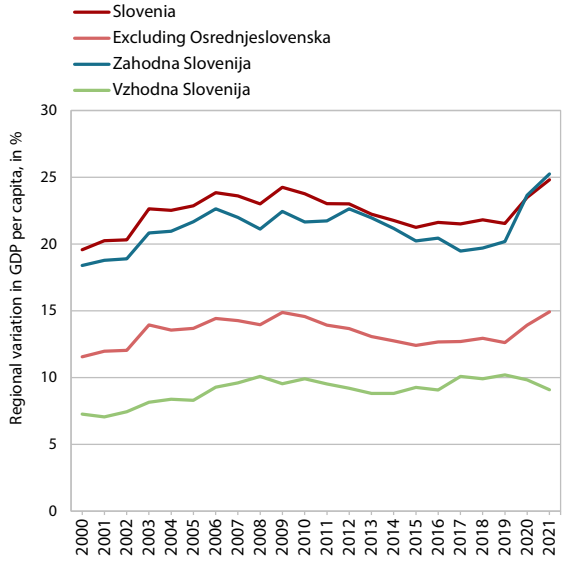
The gap in GDP per capita between the Osrednjeslovenska and other regions has widened since the beginning of the COVID-19 epidemic. The contraction of real GDP in all regions in the first year of the epidemic was followed by growth in 2021. GDP growth was strongest in the Primorsko-Notranjska region (11% in real terms), which only slightly narrowed its large gap in GDP per capita with the national average. The economic growth was above average also in the Podravska and Osrednjeslovenska regions. The Osrednjeslovenska region, where the capital, with its state-building functions and numerous jobs that also provide employment for inhabitants of other regions, is located, was one of the regions least affected by the COVID-19 crisis. In 2021, it further increased its lead over the other regions in terms of GDP per capita. Jugovzhodna Slovenija, whose economy is primarily focused on the pharmaceutical and automotive industries, recorded almost a 50% lower increase in GDP (4.2%) than the Slovenian average (8.2%), so it slightly widened its gap with the Slovenian average in terms of GDP per capita. The Obalno-Kraška region, which was hit hardest by the COVID-19 epidemic due to the high share of accommodation and food service activities and tourism, has widened its gap with the Slovenian average. As GDP growth was below average in 2021, the gap with the average widened in regions that were less affected in the first year of the epidemic (the Posavska, Zasavska and Pomurska regions).

In 2021, regional disparities slightly exceeded the highest level since the beginning of measurements.[1] The relative dispersion of GDP per capita[2] was 1.3 p.p. higher than a year earlier, slightly above the 2009 peak. The ratio between the two extreme statistical regions increased (1:2.8) due to a high growth in GDP per capita in the Osrednjeslovenska region and lower growth in the Zasavska region. Regional disparities in the cohesion region Zahodna Slovenija also increased slightly.

Statistical regions, with the exception of Osrednjeslovenska, lag behind the European average and also the regions in neighbouring countries. With an increase of five index points, the Osrednjeslovenska region remained the highest above the EU average in 2021, while the Jugovzhodna Slovenija and Posavska regions saw their gaps widen the most. The cohesion region Zahodna Slovenija was 8% above the European average, while the cohesion region Vzhodna Slovenija was among the least developed, at 74% of the European average. Given the considerable lagging behind of the majority of the regions, the catching up with the European average seems to be an extremely complex long-term objective. Therefore we compared individual statistical regions with regions in neighbouring countries that are at a similar stage of development. In 2020, the Osrednjeslovenska region performed 3 p.p. better than the Klagenfurt–Villach region, while the Goriška region lagged behind the Italian Gorizia region by 9 p.p. and the Pomurska region lagged behind the Hungarian Vas region by 1 p.p.

Figure: Regional GDP per capita, 2021





Sources: SURS (2023h), Eurostat (2023); calculations by IMAD.

[1] Since 2000.

[2] One of the indicators of regional disparities. It is measured as the sum of the absolute differences between the regional and the national GDP per capita weighted by the population share. It is expressed as a percentage of national GDP per capita.

Productivity 1.9

The productivity gap with the EU average has narrowed since the start of the COVID-19 pandemic, with Slovenia reaching 86% of the EU average in 2022. Productivity growth in Slovenia has slowed significantly since the global financial crisis, leading to a slower narrowing of the productivity gap and real convergence with more developed EU Member States. In 2019, Slovenia reached 83% of the EU average in productivity level (in purchasing power standards). After a significant drop in 2009, this was still below the level recorded before the global financial crisis. With a smaller drop in productivity in 2020 and a faster post-COVID-19 recovery, Slovenia reached 86% of the average EU productivity level in 2022, the highest ever recorded. However, it is still far from meeting the SDS 2030 target (95% of the EU average).

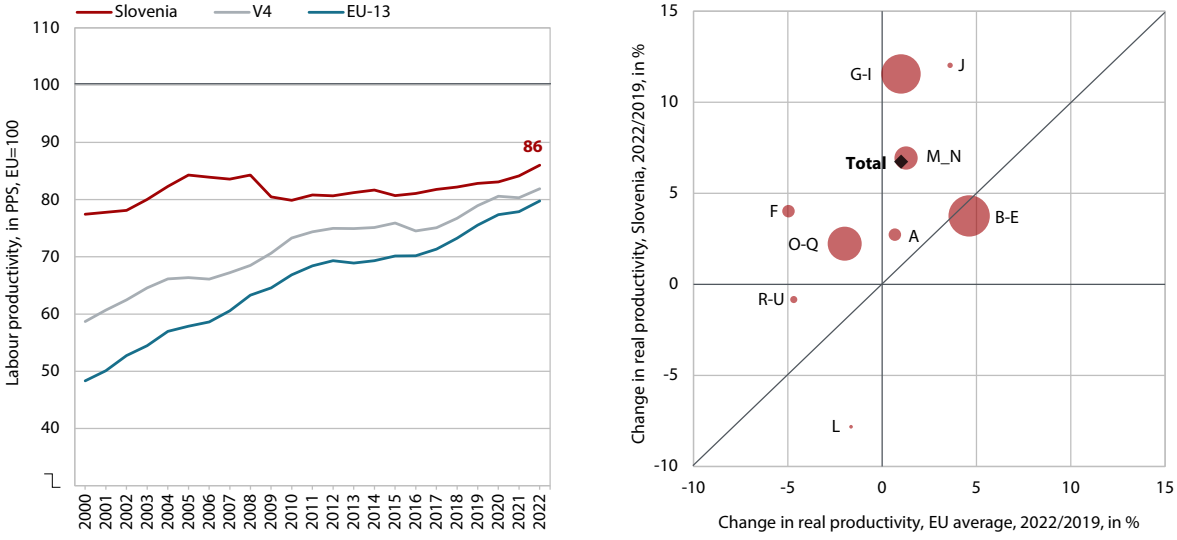
Productivity reached or surpassed pre-epidemic levels in most sectors in 2021, however signs of a cyclical slowdown started to show during 2022, especially in export-oriented parts of the economy. Productivity in the economy as a whole, measured by real GDP per person employed, exceeded 2019 levels by mid-2021; in 2022 it was on average 5.8% higher than in the year before the COVID-19 outbreak (0.9% in the EU).[1] Value added per person employed was significantly above the 2019 levels in financial services, traditional market services (except in accommodation and food service activities) and ICT services, the latter being also among the least affected since the beginning of the epidemic. Productivity in services, which are not as market-oriented, and in construction was around the 2019 level. Productivity in manufacturing was also relatively high above pre-epidemic levels, but growth came to a halt in 2022 under the impact of slowing foreign demand.

Table: Labour productivity, Slovenia

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	SDS 2030 target
Productivity level*, EU=100	84	80	80	81	81	81	82	81	81	82	82	83	83	84	86	95
Real productivity growth**, %	1.0	-6.0	3.5	2.6	-1.7	0.1	2.3	0.9	1.3	1.9	1.2	1.0	-3.7	6.8	2.9	

Sources: SURS (2023h), Eurostat (2023); calculations by IMAD. Note: * GDP (in purchasing power standards) per person employed; ** GDP (at constant prices) per person employed.

Figure: Productivity level (left) and productivity change by activities (right)



Source: Eurostat (2023); calculations by IMAD. Note: Productivity level (left) measured by GDP (in PPS) per person employed; productivity growth (right) measured by value added (at constant prices) per person employed. EU-13 is countries that joined the EU in 2004 or later and EU-14 countries that were members of the EU before 2004. NACE classification: agriculture (A), mining and quarrying (B), manufacturing (C), energy supply (D), water supply, sewerage, waste management and remediation activities (E), construction (F), trade (G), transportation (H), accommodation and food service activities (I), information and communication activities (J), financial services (K), real estate (L), professional, scientific and technical activities (M), administrative and support service activities (N), public administration (O), education (P), human health and social work (Q), arts, entertainment and recreation (R), and other service activities (S).

[1] Labour productivity, measured by real GDP per hour worked, was 4.6% above pre-epidemic (2019) level in 2022 (EU average: +2.2%).

Export market share 1.10

Slovenia's export market share in the global market[1] started to decline in the second half of 2021, and estimates for the first three quarters of 2022 point to a further 4% year-on-year decline. The decline was largely due to *structural effects*, i.e. lower foreign demand for some of Slovenia's most important product groups (e.g. vehicles) and a significant increase in the value of international trade in raw materials (reinforced by price increases), which account for a relatively small share of Slovenian exports. We estimate that the deterioration in *competitiveness* in manufacturing amid rising cost pressures also contributed to the decline in market share, which in Slovenia was influenced not only by the global increase in commodity prices, but also by a somewhat higher increase in labour and service costs than was the case in its trading partners.[2] However, the impact of the deterioration in cost and price competitiveness has been less pronounced than during the global financial crisis, when Slovenia's market share in the global market fell by one-fifth and only returned to the pre-crisis (2007) level in 2019.

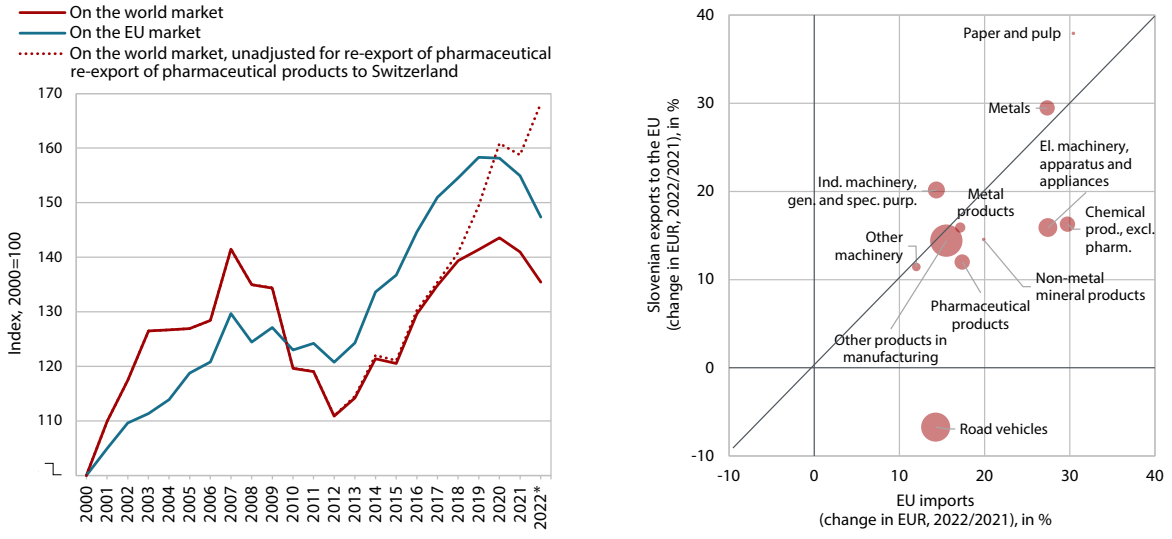
Market share in the EU market declined for most major export commodity groups in 2022, by 5% in total. More detailed data on the export/import flows of EU Member States, to which Slovenia exports around 70% of all its goods exports, show a relatively broad-based deterioration in the performance of Slovenian exporters, as measured by the market share of individual product groups. Besides in road vehicles, where Slovenian exports cannot keep up with the (already weak) EU import demand, performance also declined in pharmaceuticals and electrical machinery and equipment. Among the large groups, the market share only increased in industrial machinery. In 2022, when cost pressures were high due to the surge in energy prices, Slovenia's market share of energy-intensive products in the EU market increased for paper products and metals (iron, steel, non-ferrous metals), while it decreased for chemical and non-metallic mineral products. The sharpest decline in Slovenian market share in its main trading partners compared to the previous year and compared to pre-epidemic levels was observed in France (strongly linked to weak vehicle exports) and Germany.

Table: Slovenia's market share in the world* and EU commodity market

	Market share, in %			Average annual growth rates, in %			
	2000	2007	2022*	2001–2007	2008–2012	2013–2019	2020–2022*
World**	0.13	0.19	0.18	5.1	-4.8	3.5	-1.4
EU	0.32	0.42	0.48	3.8	-1.4	3.9	-2.4

Sources: SURS (2023h), UN Comtrade (2023), UNCTAD (2022), WTO (2022), Eurostat (2023); calculations by IMAD. Notes: * Estimate. ** Market share excluding the export of pharmaceutical products to Switzerland, which is a proxy for the greatly increased export of previously imported pharmaceutical products (re-export), whose impact on GDP is negligible and is not included in national accounts export data.

Figure: Slovenian export market share dynamics (left) and change in the EU imports and Slovenian exports to the EU in 2022, by major product groups (right)



Source: SURS (2023h), UN Comtrade (2023), UNCTAD (2022), WTO (2022), Eurostat (2023); calculations by IMAD.

[1] Market share excluding the export of pharmaceutical products to Switzerland, which is a proxy for the greatly increased export of previously imported pharmaceutical products (re-export). The effect of re-export on GDP is negligible and not taken into account in the national accounts export data. Data not adjusted for this effect is a less accurate indicator of Slovenia's export competitiveness.

[2] See also the real unit labour costs indicator.

Unit labour costs 1.11

After two years of being a highly unreliable indicator as a consequence of extensive government interventions, unit labour costs fell slightly below pre-epidemic levels in 2022. Real unit labour costs (RULCs) were not a reliable indicator of cost-competitiveness at the time of large-scale government interventions to mitigate the consequences of COVID-19. The increase in the cost burden (and lower profits) for enterprises was overestimated by this indicator, since part of the compensation of employees (especially related to shorter working hours and temporary layoffs) was borne by the state budget and not by enterprises.[1] As economic activity picked up and most of the anti-COVID-19 measures were lifted in 2022, RULCs decreased and were 1.3% below pre-epidemic levels (2019), which is comparable to the EU average (-1.4%). In Slovenia, the strong increase in real productivity was the main cause of the decline in RULCs, and the pass-through of costs to prices (as measured by the GDP deflator) was also more pronounced. Both contributed to the increase in profits, despite the relatively high growth in labour costs. Productivity growth in the EU was lower and growth of labour costs per employee was also much more subdued (EU: 9%, SI: 16%) between 2019 and 2022. Although the data for 2022 on average show a relatively favourable ratio of labour costs to productivity, the seasonally adjusted data already point to a cyclical slowdown in productivity growth, while labour cost growth remains at a relatively high level amid high inflation and labour shortages.

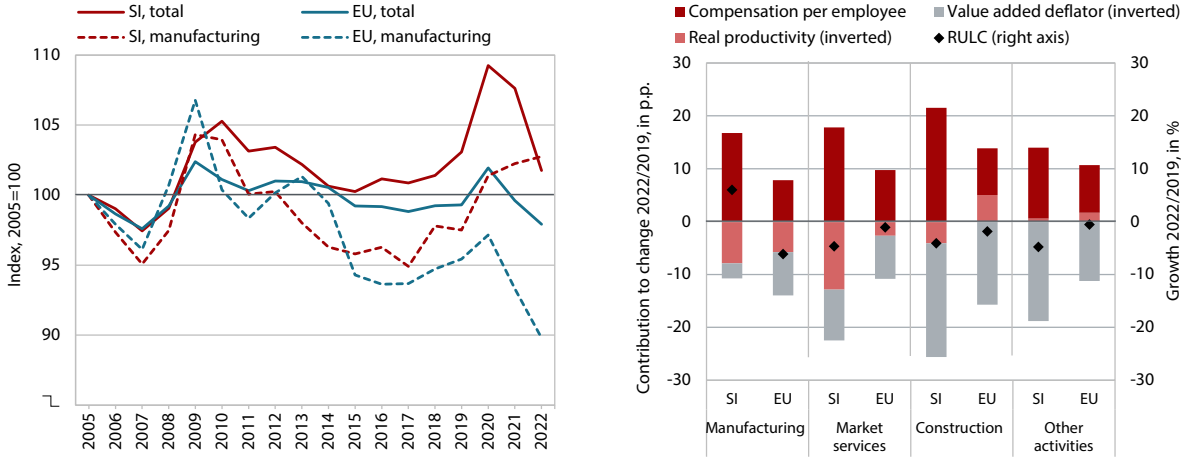
In manufacturing, the slowdown in foreign demand already led to a stagnation in productivity growth and an increase in unit labour costs in 2022. Here, RULCs in 2022 were 5.4% above pre-epidemic levels. This is significantly higher than in Slovenia's main trading partners or the EU average, where they were 5.9% lower than in 2019. The gap with respect to the EU is explained by higher growth in labour costs (wages) since the beginning of the epidemic, but also by a more limited pass-through of the high growth in input (energy and materials) to output prices.[2] However, the pass-through of costs to prices and decline in RULCs (i.e. the increase in the profit share) were still high in 2022 for activities that are mainly oriented to the (less competitive) domestic market, where demand and real productivity growth were still high in 2022.

Table: Growth in unit labour costs in Slovenia and the EU, in %

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Slovenia	1.6	4.8	1.4	-2.0	0.3	-1.2	-1.5	-0.4	0.9	-0.3	0.5	1.7	6.0	-1.5	-5.5
EU	1.7	3.2	-1.2	-0.8	0.7	0.0	-0.4	-1.3	0.0	-0.4	0.4	0.1	2.7	-2.3	-1.7

Source: Eurostat (2023); calculations by IMAD.

Figure: Real unit labour costs (left) and contributions to their change in 2019–2022 (right)



Source: Eurostat (2023); calculations by IMAD. The real unit labour costs (RULC) show the ratio between compensation of employees per employee (labour costs) and nominal productivity (value added at current prices per person in employment). Nominal productivity is further broken down into real productivity and the impact of prices (value added deflator). In the figure, the changes of these two values are shown as an inverse value, i.e. with a negative sign. Market services include: trade (NACE G), transportation (H), accommodation and food service activities (I), information and communication activities (J), professional, scientific and technical activities (M) and administrative and support service activities (N).

[1] For details, see Indicator 1.13 (IMAD, 2022e).

[2] Slovenian industrial producer prices rose sharply over this period, especially in 2022 (more on the domestic market), which is in line with the situation in the EU as a whole. However, the value added deflator measures the difference between output and input prices.

Foreign direct investment 1.12

After a slump during the epidemic, foreign direct investment (FDI) flows picked up considerably in 2021, before weakening again slightly in 2022. The value of *inward* FDI increased relatively rapidly even before the epidemic (from 2015 onwards), by as much as 70.4% in total over the last eight years (2015–2022), mainly due to equity capital inflows, but also partly due to debt instruments. Higher inward FDI was primarily due to the acceleration of the privatisation process and increased sales of equity stakes in Slovenian companies. There were also more expansions of the existing foreign-owned companies and new (greenfield) investment. EU Member States were the largest investors in Slovenia, with Slovenia's main trading partners contributing about two-thirds of total inward FDI. The average implicit rate of return on FDI investment was 7.7%,[1] the highest among the international investment components.[2] *Outward* FDI has been increasing since 2014, but at a relatively slow pace. In 2022, the stock of such investment was 36.6% higher than in 2010. Slovenian direct investors have the largest share of direct investment in the other countries of the former Yugoslavia. The declining share of goods exports to this region over the last seven years indicates that Slovenia is replacing part of its former exports with local production in these markets.

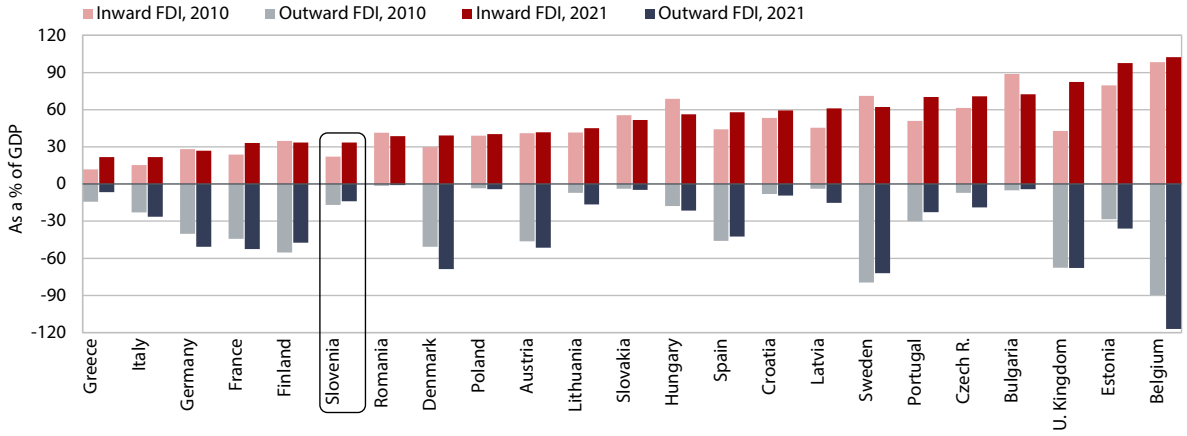
Slovenia remains among the EU Member States with a low inward FDI stock as a share of GDP. Although it increased to 33.5% of GDP by 2022, it remained lower than the average of the other new EU Member States, despite having the highest growth among them in the period 2009–2021. Among the new EU Member States, Slovenia has a higher outward FDI to GDP ratio than Slovakia and Poland.

Table: Flows and stocks* of inward and outward FDI in Slovenia**

In million EUR	2005	2008	2010	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Inward FDI														
Year-end stock	5,981	8,598	7,983	9,249	8,897	10,202	11,612	12,970	13,957	15,254	16,179	16,664	18,396	19,785
Inflow***	452	832	80	264	-114	791	1,510	1,126	795	1,172	1,307	193	1,499	1,540
Stock as a % of GDP	20.5	22.7	22.0	25.5	24.4	27.1	29.9	32.1	32.4	33.3	33.3	35.4	35.2	33.5
Outward FDI														
Year-end stock	2,777	6,085	6,097	5,710	5,179	5,335	5,508	5,741	5,969	6,107	6,840	7,016	7,841	8,327
Outflow***	505	961	-14	-201	-161	207	241	262	300	238	545	454	1102	319
Stock as a % of GDP	9.5	16.0	16.8	15.8	14.2	14.2	14.2	14.2	13.9	13.3	14.1	14.9	15.0	14.1

Source: BoS (2023b). Notes: * Stocks are calculated using the new BPM6 methodology according to the directional principle used by the Bank of Slovenia since 2014. In the case of Slovenia, there were major changes, especially in inward FDI: at the end of 2013, the stock of inward FDI amounted to EUR 10,729 million according to the previous and only to EUR 8,897 million according to the new methodology, while the stock of outward FDI totalled EUR 5,121 million according to the previous and EUR 5,179 million according to the new methodology (BoS, 2014). ** Companies in which an individual foreign investor holds a 10% or higher equity stake. *** Inflows and outflows are shown according to the principle of investment direction.

Figure: Stocks of inward and outward FDI, as a % of GDP



Source: UNCTAD (2022). Note: The figure excludes Cyprus, Malta, Ireland, Luxembourg and the Netherlands, which stand out with their high FDI stocks.

[1] The rate of return is calculated by comparing the sum of direct investment expenditure flows (profits and interests) in the current year with the balance of direct investment liabilities in the previous year.

[2] The categories for which returns are calculated include direct investment, investment in securities and other investment.

The European Innovation Index 1.13

According to the European Innovation Index (EII), Slovenia was still classified in the group of moderate innovators in 2022 and thus remains far behind the average of innovation leaders in international comparison. The EII is a composite indicator measuring the average performance of EU Member States' national research and innovation systems on 12 components.[1] Its value determines the classification of countries into four groups.[2] In 2022[3], Slovenia was still classified in the group of moderate innovators, after having been among strong innovators before 2018, with an EII score close to the EU average. After stagnating in 2015–2017 and deteriorating significantly in the subsequent two years, innovation system efficiency has improved in the last three years, though Slovenia's progress in 2015–2022 was the fifth lowest among EU Member States. Only in 2022 was the EII for the first time slightly above the 2015 EU average, which was the benchmark for assessing countries' progress in the last EII measurement (EC, 2022n). However, Slovenia still lags far behind the group of innovation leaders, which is the SDS 2030 target (see Table).

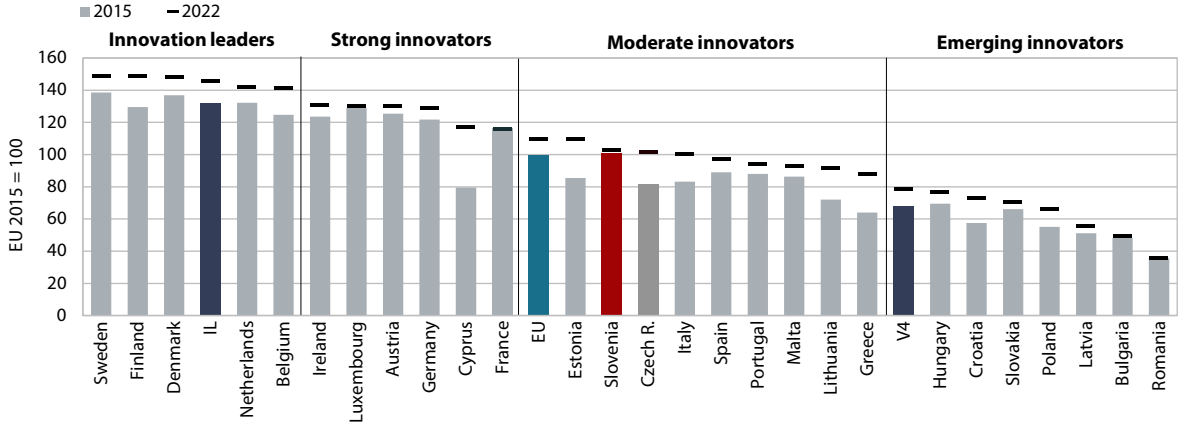
The main reason for the weak innovation system performance and Slovenia's low EII ranking in 2015–2022 is related to R&D investment. R&D investment was too low in both the public and business enterprise sectors. Its level and dynamism lagged far behind the EU average and even more behind the innovation leaders. Slovenia also lags behind the Czech Republic in public sector investment, while Poland narrowed its gap with Slovenia quickly in recent years. Concerning business enterprise sector investment, Slovenia maintained its lead over the Visegrad countries. Human resources remain a competitive advantage for Slovenia.[4] There have also been positive developments in innovation activity over the last three years, particularly due to an increase in product and business process innovation in SMEs, which is also linked to the outbreak of the COVID-19 epidemic in 2020 (see Indicator 1.15).

Table: The European Innovation Index

	2015	2016	2017	2018	2019	2020	2021	2022	SDS 2030 target
Slovenia (EU index 2015=100)	100.8	99.8	100.3	96.6	93.4	96.0	99.7	102.7	>120 (ranking among innovation leaders)*
Slovenia (EU index=100)	100.8	99.4	98.8	93.2	89.6	88.9	91.2	93.5	
Slovenia (EII score)	0.497	0.492	0.495	0.476	0.461	0.473	0.492	0.507	
EU (EII score)	0.493	0.495	0.501	0.512	0.514	0.533	0.539	0.542	

Source: EC (2022n); calculations by IMAD. Note: * In 2022, innovation leaders reached EII values between 0.698 and 0.735.

Figure: The European Innovation Index



Source: EC (2022n); calculations by IMAD.

[1] These are human resources, attractive research systems, finance and support, firm investments, linkages, intellectual assets, sales impacts, and environmental sustainability, with three indicators included, and digitisation, use of information technologies, innovators, and employment impacts, with two indicators included. The EII 2022 calculation covered 32 indicators.

[2] Innovation leaders achieved innovation performance above 125% of the EU average in 2015, strong innovators between 100% and 125%, moderate innovators between 70% and 100%, and emerging innovators below 70% (EC, 2022n).

[3] Slovenia was ranked in the group of moderate innovators for the fourth year in a row. The data included in the last EII 2022 measurement took into account the situation on 15 July 2022 and refer to the period from t–1 to t–7. Data for most indicators are for 2020 and 2021 and some for 2018 and 2019, which should be taken into account in the interpretation (EC, 2022n).

[4] Due to the high proportion of the population participating in lifelong learning and having tertiary education.

Innovation activity of enterprises 1.14

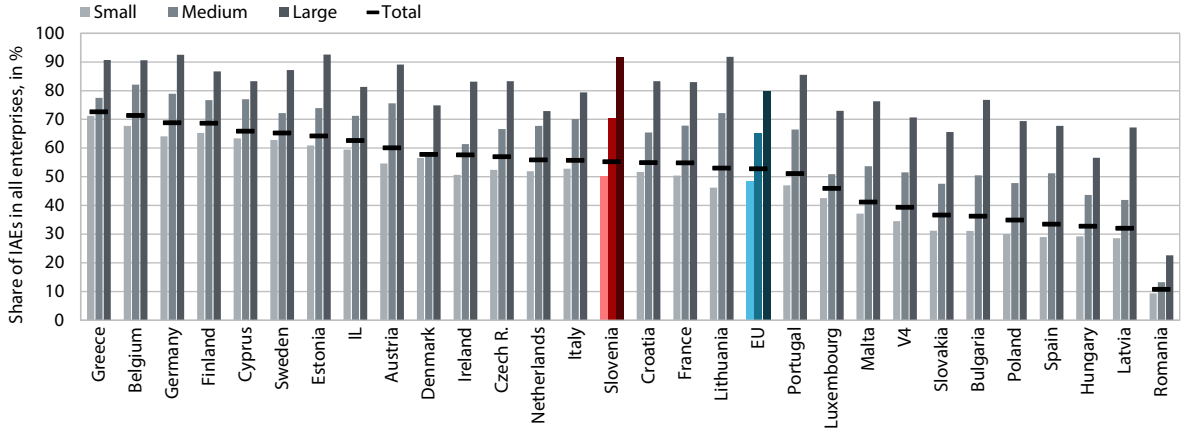
The share of enterprises that introduced innovation has increased since 2016, reaching its highest level in 2018–2020 in a decade, which has led to an improvement in Slovenia's ranking by international comparison. In 2018–2020 (latest available data),[1] more than half of all enterprises in Slovenia were innovation active (IAEs), which was an increase of 6.6 p.p. compared to the previous period (2016–2018). Since progress at the EU level was much lower, Slovenia exceeded the EU average (52.7%) for the first time, especially among large enterprises (by more than 10 p.p.). At the same time, the gap with the innovation leaders average (62.5%) narrowed, with large enterprises performing better, while only small enterprises were still significantly below this average. The increase in the share of IAEs compared to the previous period was highest among medium-sized enterprises (by more than 10 p.p.). The share of IAEs is significantly higher in manufacturing than in services. In Slovenia, the share of IAEs among service activities was the highest in computer services (77.2%). This is in line with the EU average[2] (77.7%), but (much) lower than in some of the innovation leaders (between 76.7% and 91.7%) and also in certain Visegrad countries (between 53.8% and 81%). According to the type of innovation, a significantly higher share of enterprises simultaneously introduced product along with business process innovations, which reflects their strong interdependence and intertwining. The results of the latest survey showed that significantly more enterprises have introduced only business process innovations involving elements of services[3] than of products. This is at least partly related to the outbreak of the COVID-19 epidemic in 2020, when companies had to adapt very quickly and therefore change their business processes.[4] A quarter of companies have introduced at least one business process innovation as a result of the emergence of COVID-19, while a tenth have introduced at least one product innovation.

Table: Innovation-active enterprises by type of innovation, as a % of all enterprises

		Total	Product	Business process	Product and business process	Manufacturing	Services
2016–2018*	Slovenia	48.6	9.8	10.3	27.1	53.9	44.5
	EU	50.3	5.5	16.7	24.6	54.0	N/A
2018–2020	Slovenia	55.2	10.0	16.6	26.3	59.6	51.5
	EU	52.7	4.9	20.1	23.5	57.2**	51.0

Sources: Eurostat (2023), SURS (2023h). Note: * A break in the time series of data due to the changed definition of innovations. ** EU average, excluding Spain; calculations by IMAD.

Figure: Share of innovation-active enterprises, by size



Sources: Eurostat (2023), SURS (2023h); calculations by IMAD. Note: IAEs – innovation-active enterprises.

[1] This is the second consecutive measurement of innovation activity since the methodological changes were introduced in line with the revised OECD methodology (Oslo Manual 2018), when a new definition of innovation was introduced (product – goods and/or services, business process innovation). The harmonised survey is conducted every two years and covers companies with at least 10 employees.

[2] EU average, excluding Croatia.

[3] They relate to the production of goods and services, information and communication systems, management and administration, marketing, distribution and logistics, and sales and after-sales service.

[4] Including in terms of new/changed/improved communication, marketing, logistics, distribution, management methods/business practices within the company or with external users/business partners.

R&D expenditure and the number of researchers 1.15

Expenditure on research and development (R&D) was increasing in nominal terms in 2018–2021 after several years of declining, but relative to GDP it continues to lag behind the 2011–2015 period. Public sector investment in R&D declined in the period 2012–2016[1] in the context of fiscal consolidation. On the other hand, the decline in business enterprise sector investment in R&D in 2015–2017 was mainly due to a decrease in European funding,[2] and the statistics were also partly influenced by the revision of SURS data.[3] R&D funding from abroad mostly increased over the whole period 2008–2021. In 2021, total R&D expenditure was higher than ever before in nominal terms (EUR 1,112.5 million), but in relative terms it stagnated at around 2.1% of GDP for the second year in a row. It has lagged behind the EU average since 2016 (in 2021 by 0.1 p.p.) and even more behind the innovation leaders[4] (in 2021 by 0.7 p.p.).

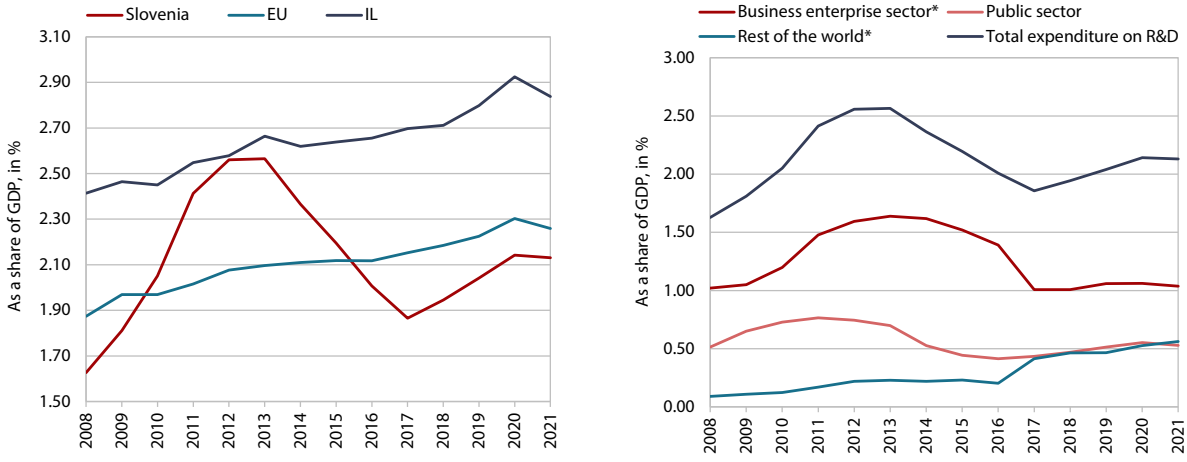
After increasing in 2008–2020, growth in the number of researchers[5] in the business enterprise sector was halted in 2021. In 2008–2021, it was higher than the average annual growth rate of the EU and the innovation leaders but lagged behind the average of the Visegrad countries (SI: 6.1%, EU: 4.9%, IL: 5.7%, V4: 11.5%). The business enterprise sector employed 54.1% of all researchers on average in 2008–2021 and 59.9% in 2021. This is significantly less than in innovation leaders (68.3%), while Slovenia has been above the EU average since 2011 (EU 2021: 56.3%). The declining trend in the number of researchers in the public sector ended in 2018, and amid strong growth, the level peaked in 2021 (4,327 researchers). However, the public sector faces an unfavourable age structure of researchers and poor working conditions (see Section 1.2.2.1), which raises concerns about the potential for future basic research, which is the basis for further research, and for breakthrough innovations in the business enterprise sector.

Table: R&D expenditure, as a % of GDP

	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Slovenia	1.36	1.42	1.63*	1.81	2.05	2.41*	2.56	2.56	2.37	2.20	2.01	1.87*	1.95	2.04	2.14	2.13
EU	1.81	1.78	1.87	1.97	1.97	2.02	2.08	2.10	2.11	2.12	2.12	2.15	2.19	2.22	2.30	2.26

Sources: Eurostat (2023), SURS (2023h). Notes: The data for the EU is Eurostat estimate; data for 2021 is preliminary. * The breaks in the time series in 2008 and 2011 were due to the higher number of reporting units in the business enterprise sector, while in 2017 it was due to harmonisation of data with the revised methodology, the OECD's Frascati Manual (for more, see IMAD, 2019b).

Figure: Total R&D expenditure (left) and R&D expenditure by source of funds, Slovenia (right)



Sources: Eurostat (2023), SURS (2023h); calculations by IMAD. Note: * Due to a revision of data by source of funds in 2017–2019, data for the business enterprise sector and the rest of the world are not comparable to the period before 2017 (see also footnote 370).

[1] In 2021, it was still 4.5% behind the 2011 peak in real terms.
[2] In 2013–2014, R&D projects in centres of excellence and competence and development centres co-financed by national and EU funds were completed. The late start of absorption form the new financial perspective 2014–2020 also contributed to the further decrease in European funding. After 2015, the amount of R&D tax relief claims started to decline (IMAD, 2022d). In 2021, their volume increased again, this time by two-fifths (MF, 2023a).
[3] In order to make the application of the methodology more consistent across reporting units, SURS revised the data by source of funds for 2017–2019. Therefore, the data for the business enterprise sector and the rest of the world are no longer comparable with the period before 2017 (Trol, 2022), (IMAD, 2022d).
[4] The definition of innovation leaders (Sweden, Finland, Denmark, the Netherlands and Belgium) is based on EC (2022n).
[5] Expressed on a full-time equivalent basis.

Intellectual property 1.16

In terms of the number of patent applications filed with the European Patent Office (EPO), Slovenia still lagged far behind the EU average and even further behind the innovation leaders in 2022. According to provisional EPO data, Slovenian applicants filed 58 patent applications per million population in 2022, which is close to the average in the period 2008–2022. In that period, the EU average was 2.6 times higher than in Slovenia and the average in innovation leaders was 6.5 times higher. With regard to the level of patentability, as measured by the number of patent applications per million inhabitants, Slovenia ranked around 13th among EU Member States throughout the 2008–2022 period, which means that it took the leading position among the new EU Member States or was even ahead of some similarly developed countries (Spain and Portugal). In 2013–2022, Slovenian applicants filed about 20% of their applications in only two technological fields[1] (electrical machines, apparatus and energy and organic fine chemicals) and about 10% in medical-related technologies[2] (EPO, 2023). This is associated with a significant share of the pharmaceutical/chemical industry in Slovenia and its investments in R&D. The intensity of filing patent applications is also conditioned by the structure of the economy and the technologies[3] used in individual sectors.

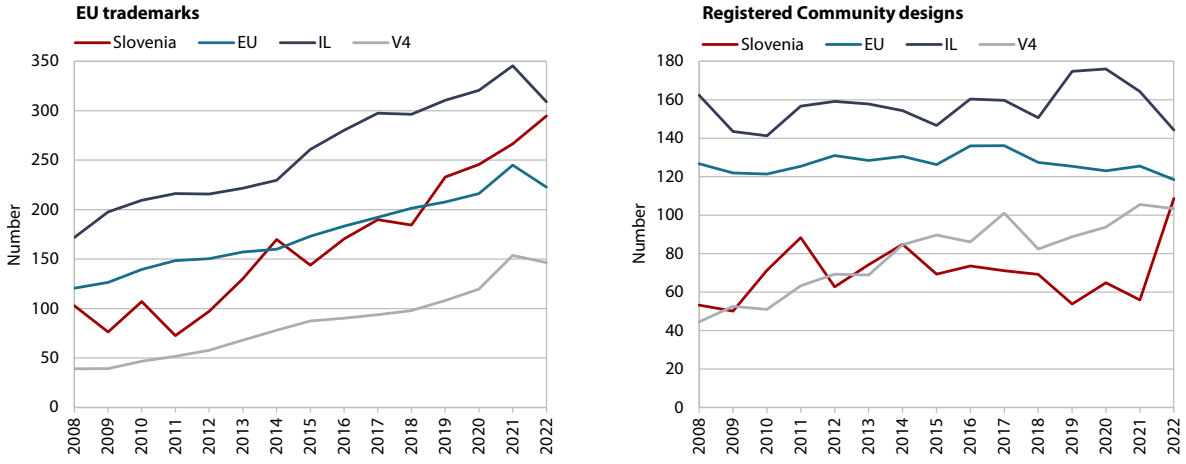
Significant progress has been made in trademarks since 2011, while the gap narrowed in 2022 in designs. In EU trademark[4] legal protection, the number of Slovenia's applications per million inhabitants was mostly rising in 2008–2022. By 2021, however, Slovenia lagged significantly behind the EU average in terms of the number of registered Community designs[5]. In 2022, this number recorded the highest annual increase. With a single application,[6] applicants can ensure the legal protection of one or other already mentioned intellectual property right throughout the EU. The costs are relatively lower and legal protection procedures are significantly faster than for patents,[7] which affects their attractiveness among companies of all sizes and activities.

Table: Patent applications filed with the EPO, per million inhabitants

	2004	2008	2009	2011	2013	2014	2015	2016	2017	2018	2019	2020	2021*	2022*
Slovenia	26	63	56	63	66	61	57	55	47	48	58	78	55	58
EU	119	137	130	135	138	141	141	139	143	148	149	147	152	151

Source: Eurostat (2023). Note: * Provisional data.

Figure: Number of EU trademark applications and registered Community designs with the EUIPO, per million inhabitants



Sources: EUIPO (2023b), EUIPO (2023a); calculations by IMAD.

[1] According to the International Patent Classification, which is based on the classification of technologies (Schmoch, 2008), the legal protection of patents is oriented towards the protection of technologies and related processes in which products are made and not towards the protection of sectors.
[2] Technologies related to the manufacture of instruments and pharmaceutical products/preparations (human and veterinary medicine).
[3] According to the WIPO methodology, the more patentable technological areas are digital communications, medical technologies, computer technologies, digital communications, and technologies related to electrical energy, machines and apparatus. In 2022, they accounted for almost one-third of all patent applications filed with the EPO.
[4] A trademark or service mark is a legally protected combination of signs which, by means of a graphic illustration, enables the distinction of identical or similar goods/services. The duration of the legal protection of a trademark is 10 years and is renewable.
[5] A design is a legally protected outward appearance of the product, which is new and has an individual character. The duration of the legal protection of a design is 5 years and is renewable.
[6] With the EU Intellectual Property Office (EUIPO).
[7] A new European patent with unitary effect for the entire territory of the participating EU Member States – 17 so far – brings new possibilities to obtain unitary patent protection cheaper and faster by filing a single application with the EPO. A new unitary patent system, which includes the Unified Patent Court, will become effective from 1 June 2023 (EC, 2023c).

The Digital Economy and Society Index 1.17

Slovenia improved its ranking according to the Digital Economy and Society Index (DESI) compared to other EU Member States, while it is gradually losing its advantage compared to the EU average. In 2022, the DESI was calculated using slightly revised indicators, so the changes in the ranking are also related to methodological changes. According to the comparative data, Slovenia outperformed Latvia, Lithuania and Belgium in 2021 and 2022 and ranked 11th among EU Member States. At the same time, it significantly reduced its lead over large countries such as Italy and France, which means that it reduced its comparative advantage over the EU average in terms of digitisation of society and the economy.[1] According to DESI, the differences between countries narrowed, and Slovenia also managed to narrow its gap with the ninth-ranked country, Estonia, which is the SDS 2030 target.

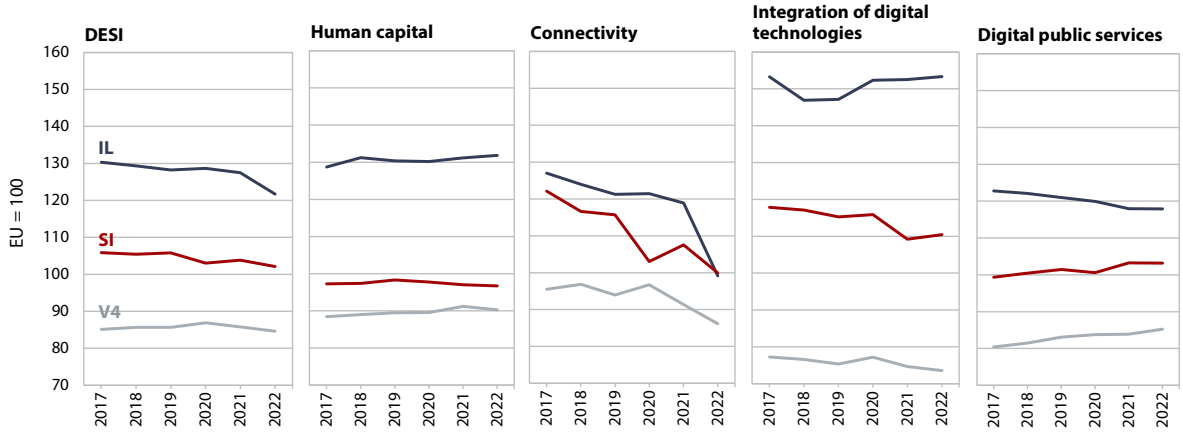
Slovenia's progress over time can be seen in the area of digital public services, but the time series of most indicators in this component is only an estimate (EC, 2022e). In this area, Slovenia scores above average in the use of e-government services and open data. As regards digital public services for individuals, their online accessibility is comparable to the EU average, while cross-border accessibility, i.e. accessibility for users from other European countries, is significantly below the EU average. In the case of digital public services for businesses, the situation is the opposite: here, accessibility for businesses from other European countries is significantly above average, while online accessibility in general is below average. In terms of human capital needed for digitisation, Slovenia is stagnating slightly below the EU average and the gap with the innovation leaders has been gradually widening. The gap between Slovenia and the EU average is particularly wide when it comes to citizens' digital skills. Slovenia even lags behind the V4 countries, especially in advanced digital skills, where it ranks only 24th in the EU. In the area of connectivity, Slovenia completely lost its comparative advantage due to the faster progress of other countries. This is mainly due to the slow growth in the share of households with broadband internet access and the availability and take-up of mobile broadband. Despite slight progress in 2022, Slovenia is also losing its comparative advantage in the integration of digital technologies. This is mainly due to the weakening of the comparative advantage in the use of digital technologies in enterprises (for a more detailed analysis see IMAD (2022d).

Table: Slovenia's ranking on the Digital Economy and Society Index (DESI) among the 27 EU Member States

	2017	2018	2019	2020	2021	2022	SDS 2030 target
DESI	14	14	13	15	11	11	< or = 9
Human capital	16	16	16	16	18	17	< or = 9
Connectivity	9	10	8	13	9	10	< or = 9
Integration of digital technologies	9	8	8	8	9	9	< or = 9
Digital public services	14	14	14	14	13	13	< or = 9

Source: EC (2022d).

Figure: The Digital Economy and Society Index (DESI) and its dimensions, Slovenia



Source: EC (2022d). Note: IL – innovation leaders; V4 – Visegrad countries.

[1] Slovenia also dropped from 31st to 37th place between 2020 and 2022 according to the IMD Global Digital Competitiveness Ranking – see IMAD (2022d).

Corporate environmental responsibility 1.18

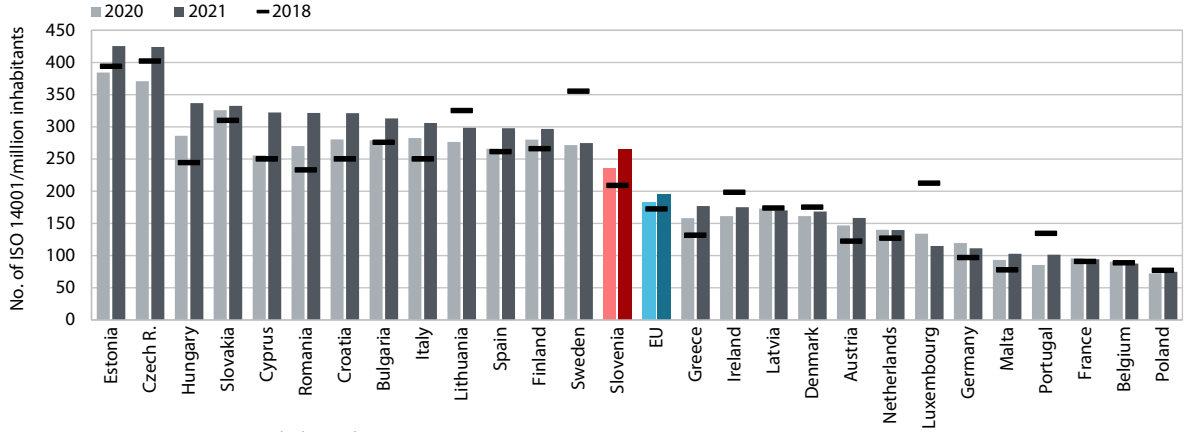
The ISO 14001 standard and the eco-label are widely used environmental certificates in Slovenia, while the EMAS scheme, which is slightly more stringent, is relatively less widespread. In the area of environmental certificates, depending on data availability, we monitor the uptake of (i) ISO 14001 certificates, i.e. an international standard for responsible environmental management, which is the most widely used environmental certificate,[1] (ii) the EU Eco-Management and Audit Scheme (EMAS) and (iii) the EU Eco-label or EU Flower. Slovenia stands out the most in international comparison for its high uptake of Eco-labels. In recent years, it has already surpassed the EU average, ranking second among EU Member States in 2022, just behind Austria (24.4 Eco-labels per million inhabitants), thanks to the rapid uptake of Eco-labels by accommodation establishments (almost one-third of ecolabels in Slovenia come from accommodation establishments compared to less than 1% in the EU). The uptake of ISO 14001 certificates is also increasing faster in Slovenia than in the EU as a whole, though Slovenia still lags behind most of the new Member States. Both in Slovenia and in the EU, the growth in the uptake of ISO 14001 certificates exceeded the growth in the uptake of EMAS certificates in 2021, which is relatively modest and is progressing at the slowest pace. This could be related to stricter requirements and a greater scope of activities required for participation in EMAS.[2] In addition, the expansion of EMAS is also linked to incentives in individual Member States or to possible facilitations in the implementation of environmental regulations (CCIS, 2022a). In the first half of 2022, the uptake of EMAS certificates increased considerably in the EU (after decreasing over the last decade), while it declined slightly in Slovenia. The decline may only be temporary (some EMAS certificate holders may not have renewed their certificate yet). In terms of EMAS uptake, Slovenia ranks below the EU average but ahead of most of the new EU Member States, excluding Estonia and Slovakia, where the number of EMAS registrations has increased significantly in recent years.

Table: Number of environmental certificates in Slovenia and the EU, per million inhabitants

		2005	2008	2010	2015	2018	2019	2020	2021	2022
ISO 14001*	Slovenia	N/A	N/A	N/A	N/A	209.0	224.9	235.7	264.1	N/A
	EU	N/A	N/A	N/A	N/A	172.4	181.1	181.9	194.2	N/A
Ecolabel**	Slovenia	0.0	1.5	1.5	7.3	8.7	8.7	8.7	16.6	23.7
	EU	0.6	1.6	2.3	N/A	4.9	3.4	3.8	4.6	5.0
EMAS**	Slovenia	0.5	0.5	1.5	4.8	5.2	4.8	4.8	4.8	4.3
	EU	6.9	8.8	9.9	8.7	8.5	8.2	8.6	8.6	9.0

Sources: Eurostat (2023), ISO (2022), MOP (2022b), MOP (2022d), EC (2022g), EC (2022j); calculations by IMAD. Notes: Calculations using data on the population for the previous year. N/A – data not available. * Data for ISO 14001 since 2018 are not comparable with data for previous years due to changes in the reporting. ** 2022 data is based on the latest available data from September 2022 (the census is conducted twice a year, in March and September). *** The annual number of EMAS schemes is the average of the spring and autumn state.

Figure: The number of ISO 14001 certificates in the EU



Sources: Eurostat (2023), ISO (2022); calculations by IMAD.

[1] Most ISO 14001 certificates are awarded to companies in manufacturing (especially in the energy-intensive metal and rubber industries), in some important service activities (trade, transportation and storage) and in construction (ISO, 2022).

[2] In addition to the environmental management scheme, which follows similar requirements and principles as set out in SIST EN ISO 14001:2005, organisations shall, prior to registration with a competent body, prepare an environmental statement summarising the main characteristics of the organisation and its activities, the environmental management system implemented, and the values of the key environmental indicators (CCIS, 2022a).

2 Learning for and through life

Knowledge and skills for a high quality of life and work

Culture and language as main factors of national identity

Share of the population with tertiary education 2.1

The share of adults (25–64 years) with a tertiary level of educational attainment further increased in 2021 and exceeded the SDS target for the second year in a row, but at the same time it was still much lower than in most economically developed countries. In 2021, it was 40.3% and was above the EU average (33.4%) and the SDS 2030 target (35%) but much lower than in most Northern and Western European countries. Many years of growth in the share is related to the high participation of young people in tertiary education and the transition of younger, on average more educated people to higher age groups (a demographic effect). As a result, the highest increase in the share of tertiary-educated adults over the period 2010–2021 was seen in the 35–44 and 25–34 age groups (the share in the first group was most significantly above the EU average in 2021). Despite the high participation of young people in tertiary education, the participation rate in the 20–24 age group was below the EU average, which could be due to extension of the study period. Due to their higher participation in tertiary education, the share of women with tertiary educational attainment was higher than the share of men, and the difference between tertiary educated nationals and non-nationals was larger than the EU average. By regions, the highest share of tertiary-educated persons was recorded in the most developed Osrednjeslovenska region (49.3%), while it was the lowest in the Pomurska (30.1%) and Zasavska regions (30.2%).

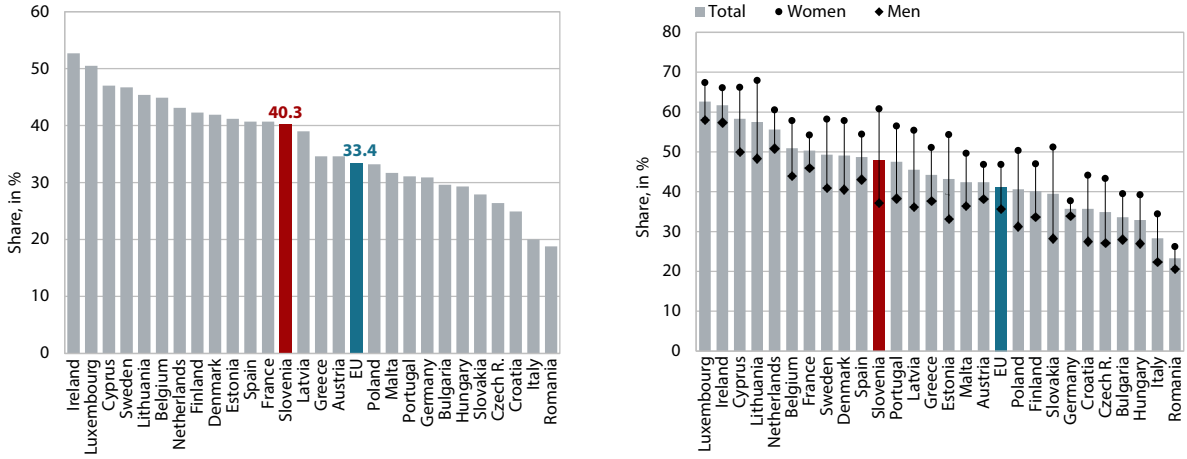
In 2010–2021, the share of employees with tertiary education increased and was above the EU average. In 2021, it was 47.3% (EU average: 38.6%);[1] in most private sector activities it was lower than in the public sector.[2] With the increase in the share of employees with tertiary education, the share of tertiary educated people (20–64 years) also increased in 2010–2021 in occupations for which at most upper secondary or lower education is sufficient. In 2021, it amounted to 18.0% (2010: 8.7%). This share has been consistently higher in the private sector than in the public sector. The share of the unemployed persons with tertiary education also increased. This suggests a mismatch between tertiary education and labour market needs and insufficient medium-term strategic planning of human resource development.

Table: Share of the population with tertiary education, in %

	2005	2008	2010	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	SDS 2030 target
Slovenia														
25–64 years	20.2	22.6	23.7	26.4	27.9	28.6	30.2	30.7	32.5	32.5	33.3	35.9	40.3	35.0
25–34 years	24.7	30.0	31.3	35.3	37.4	38.0	40.8	43.0	44.5	40.7	44.1	45.4	47.9	
EU														
25–64 years	21.5	23.1	24.6	26.2	27.1	27.7	28.5	29.1	29.9	30.7	31.6	32.8	33.4	
25–34 years	27.2	29.9	32.2	34.1	35.1	35.9	36.5	36.8	37.6	38.6	39.4	40.5	41.2	

Source: Eurostat (2023).

Figure: Share of the population aged 25–64 with tertiary education, 2021 (left); share of the population aged 25–34 with tertiary education, 2021 (right)



Source: Eurostat (2023).

[1] In 2021, the share of employees with tertiary education in Slovenia was higher than the EU average in all activities except construction and administrative and support service activities (Eurostat, 2023).

[2] In 2021, it was the highest in education and the lowest in construction. It was also low in manufacturing (Eurostat, 2023).

Enrolment in upper secondary and tertiary education 2.2

The number of people enrolled in upper secondary education increased in the 2021/2022 academic year for the second year in a row. After declining for several years due to demographic reasons (smaller generations of young people), it rose again in the 2020/2021 and 2021/2022 academic years with again a slightly larger generation of young people. In 2022, it was 8.3% lower than in the 2010/2011 academic year, mainly due to a lower number of those enrolled in general upper secondary schools (by a good fifth). The share of young people enrolled in upper secondary education has increased over the years and has been above the EU average for a number of years. With many young people opting for tertiary education, and given the general labour shortage due to demographic reasons and favourable economic developments, employers are struggling to find this type of workers. According to demographic projections, the number of those enrolled in upper secondary education is expected to grow in the future, and this will increase the potential supply of labour force. It is crucial to encourage young people to enrol in educational programmes that will provide them with the skills and knowledge to cope with the rapid transformations in the world of work brought about by the green and digital transition, technological change, a long-lived society, and other development trends.

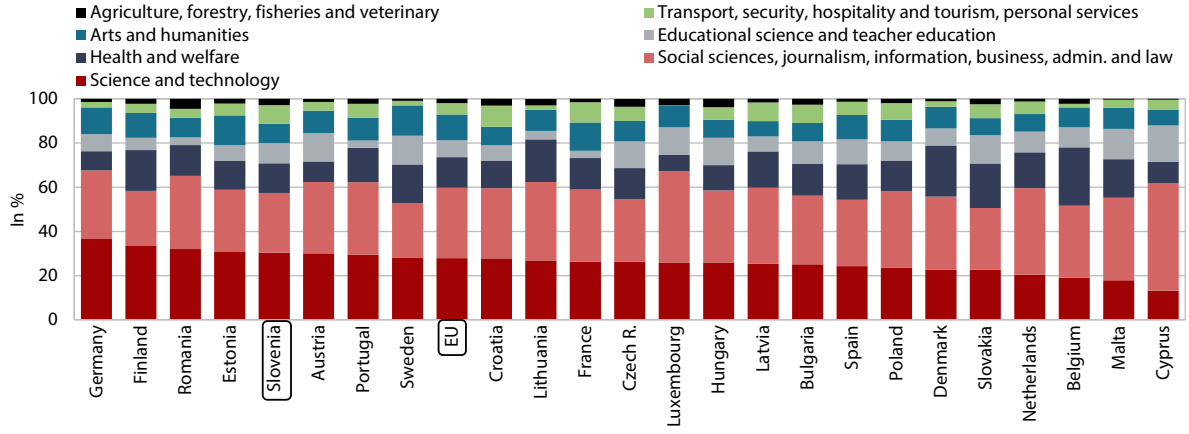
The number of students enrolled in tertiary education is below the highest levels due to smaller generations of young people. It had been declining until the 2018/2019 academic year, mainly due to demographic change, but increased significantly (by 7.8%) in the 2019/2020 and 2020/2021 academic years with larger generations of young people and in the 2020/2021 academic year also due to the increase in the number of students who were granted the right to extend their student status due to the COVID-19 epidemic. In the 2021/2022 academic year, when students no longer had this right, it decreased and was 18.2% lower than in the 2012/2013 academic year. The only field where the number of students increased compared to the previous year was health and welfare, where the share of total enrolments also increased the most, approaching the EU average in 2020. The share of students enrolled in science and technology has been between 29% and 30% since the 2013/2014 academic year and was one of the largest among EU Member States in 2020 but still far from the 2012/2013 peak and too low to meet the needs of innovation activities. The number of students enrolled in social sciences, which was also below the EU average in 2020, was also lower.

Table: Structure of students* enrolled in upper secondary education by field of education, in %

	2005	2008	2010	2012	2013	2014	2015	2016	2017	2018	2019	2020
Slovenia												
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
General educational programmes	39.1	41.1	41.2	40.1	39.7	38.4	37.5	36.4	35.6	35.3	35.0	34.7
Vocational programmes	60.9	58.9	58.8	59.9	60.3	61.6	62.5	63.6	64.4	64.7	65.0	65.3
EU												
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
General educational programmes	44.1	46.5	46.8	47.6	50.4	51.2	51.0	51.6	53.6	53.0	52.8	51.5
Vocational programmes	55.9	53.5	53.2	52.4	49.6	48.8	49.0	48.4	46.4	47.0	47.2	46.4

Sources: SURS (2023h), Eurostat (2023). Note: * Full-time students.

Figure: Number of students enrolled in tertiary education, structure by field of education, 2020



Source: Eurostat (2023)

Tertiary education graduates 2.3

The number of tertiary education graduates rose in 2021 but was still well below the 2012 peak. After a decrease in 2020 due to the negative impact of the epidemic on study activities, the number of graduates increased in 2021 in all education fields (especially in agriculture and veterinary medicine). The most significant drop in the number of graduates compared to 2012 was recorded in the social sciences, their share in the structure of graduates declining to 29.8%. The share of health and welfare graduates remained below the EU average in 2020. Although the number of graduates in this field increased in 2012–2021, it is not sufficient to meet the needs of a long-lived society. The share of education graduates is higher than the EU average.[1] The number of science and technology graduates in 2021 was below the 2012 peak and is too low to meet labour market needs,[2] although their share in 2020 was the fourth highest among EU Member States. In 2021, 60.3% of tertiary education graduates were women. Their share has not changed significantly over the years and is higher than the share of men in all fields of education, with the exception of science and technology.

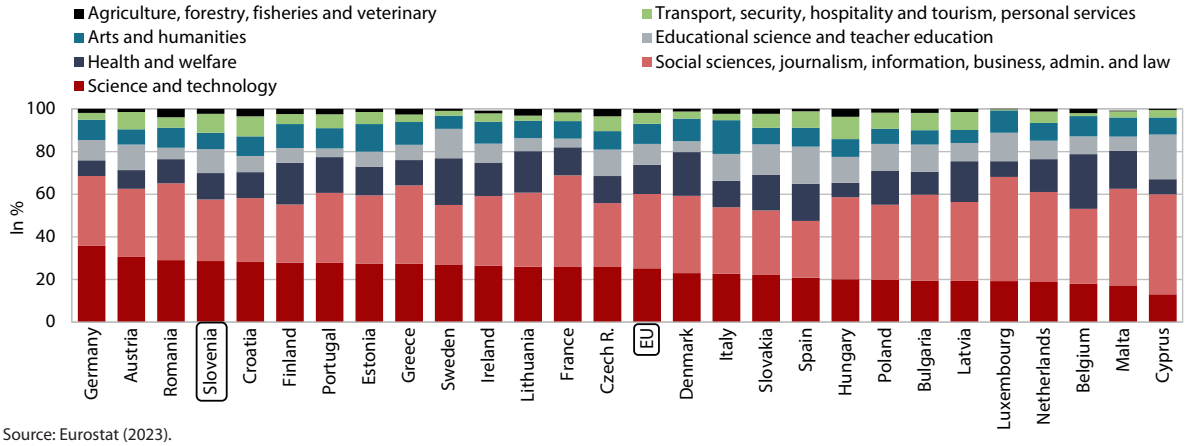
In 2021, the number of new PhDs was the lowest in the entire period 2010–2021. It peaked in 2015 and 2016[3] but has mostly declined since 2017. These trends are related to several factors: a decrease in the number of enrolled doctoral students between the academic years 2012/2013 and 2015/2016,[4] an increase in the average duration of studies (between 2012 and 2020), and, from 2020, delays in graduation due to the COVID-19 epidemic. In 2021, the number of new PhDs per 1,000 inhabitants aged 25–34 also fell, to 1.6, which is the lowest level in a decade. In 2020, the number was lower than in the innovation leaders. The number of new PhDs in science and technology per 1,000 inhabitants was also lower than in the innovation leaders. Such trends are unfavourable from the perspective of strengthening the country's development and research potential. The further decline in the number of those enrolled in doctoral studies in the 2021/2022 academic year, which is far from the peak in the 2011/2012 academic year, is unfavourable from the perspective of the future supply of R&D personnel.

Table: Number of tertiary education graduates, per million inhabitants

	2005	2008	2010	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Slovenia	7,903	8,567	9,621	10,237	9,314	9,133	9,032	15,002	7,967	8,070	7,737	7,393	7,901
EU	5,920	8,187	8,418	7,635	8,932	8,959	8,908	8,883	8,957	8,932	8,749	9,478	N/A

Source: Eurostat (2023). Note: N/A – data not available.

Figure: Structure of tertiary education graduates, by field of education, 2020



Source: Eurostat (2023).

[1] This education field includes educational sciences and teacher education.
[2] According to data provided by Slovenian Chamber of Engineers (2022), there is a shortage of engineers in Slovenia.
[3] In 2016, the number of graduates was affected by the completion of pre-Bologna study programmes. The deadline for their completion expired on 30 September 2016.
[4] The decrease in the number of those enrolled in doctoral studies could be attributed to the temporary suspension of co-financing of doctoral studies from public sources, years of reduced funding under the Young Researchers Programme, the ending of the Young Researchers in Economics programme, less interest in enrolling in doctoral studies during the previous global financial crisis, and demographic changes (declining generations).

Performance in reading, mathematics and science (PISA) 2.4

In 2018, 15-year-olds in Slovenia achieved good results in mathematics, science and reading. According to the PISA 2018 survey,[1] they scored higher than the EU average in all three literacy types, which are an indirect indicator of the quality of the education system. The SDS 2030 target, which is to be ranked in the top quarter of EU Member States, was achieved in mathematics and science. Between 2015 and 2018, the performance in science and especially in reading deteriorated, while in mathematics it remained roughly unchanged. One of the 2020 targets set in the Strategic framework for European cooperation in education and training is that the share of 15-year-olds with low achievement (below proficiency level 2) in reading, mathematics and science should be less than 15% by 2020 on the respective literacy scale. Slovenia achieved this goal only in science.[2]

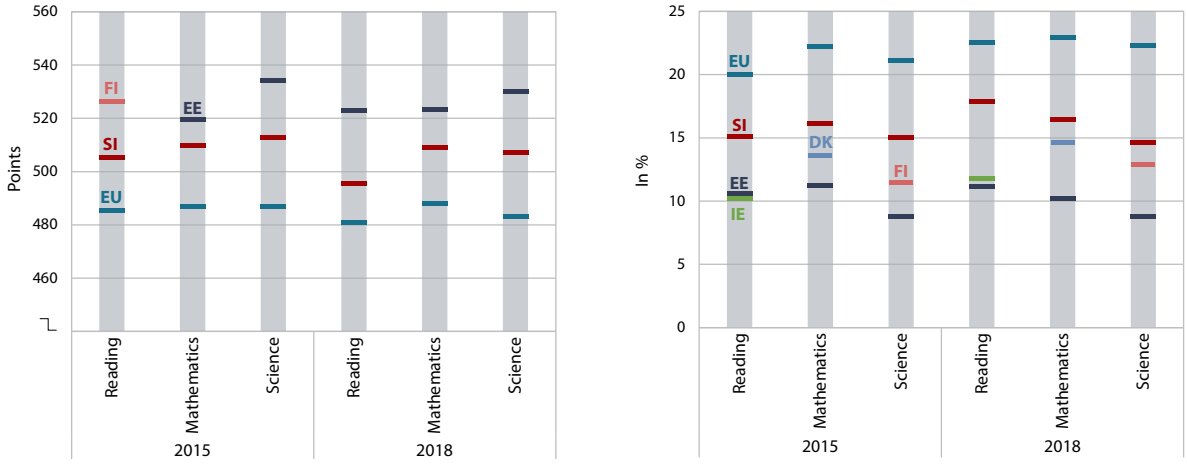
Inequalities in the learning achievements of 15-year-olds increased between 2015 and 2018. In 2018, girls achieved better results than boys in reading and science and the same as boys in mathematics. Fifteen-year-olds with the highest socio-economic status[3] performed better than their peers with the lowest socio-economic status; the gap between the two groups was narrower than the EU average but widened between 2015 and 2018. The share of 15-year-olds with the lowest socio-economic status and low reading literacy scores is higher than the share of their peers with the highest status, with the gap being one of the smallest in the EU. Fifteen-year-olds with the lowest socio-economic status are also more likely to enrol in upper secondary vocational education, including compared to other EU Member States, and have lower expectations of completing tertiary education than their peers with the highest status. Pupils from abroad performed worse in reading than their native peers, the difference between them being larger than on average in the EU.[4]

Table: Slovenia's ranking in science, mathematics and reading among EU Member States

	2006	2009	2012	2015	2018	SDS 2030 target
Reading	10	15	20	6	9	Ranking in the top quarter of EU Member States
Mathematics	8	7	9	5	5	
Science	4	5	7	3	4	

Sources: OECD (2016a), OECD (2019c). Note: In Slovenia the PISA survey has been carried out since 2006.

Figure: Average performance of 15-year-olds in mathematics, science and reading (PISA) (left); share of 15-year-olds with a poor score* in science, mathematics and reading (PISA) (right)



Sources: OECD (2016a), OECD (2019c) (left) and Eurostat (2023) (right). Notes: Of the EU Member States, for each type of literacy, the data for the country with the highest scores in the EU is shown. For the EU, the figure on the left shows the unweighted average.* Results below proficiency level 2 are regarded as poor.

[1] PISA (Programme for International Student Assessment) is an international survey of reading, mathematics and science literacy conducted under the auspices of the OECD. It looks at the performance of 15-year-old pupils regardless of the type of school they attend. Carried out in three-year cycles, the survey is aimed at capturing data on the competencies of pupils that are needed in professional or private life and are important for both individuals and society.

[2] In 2018, it was 17.9% in reading, 16.4% in mathematics and 14.6% in science.

[3] Fifteen-year-olds with the highest socio-economic status come from the first quintile of households and fifteen-year-olds with the lowest socio-economic status from the fourth quintile.

[4] Data for performance in mathematics and science are not available.

Education expenditure 2.5

Public expenditure on education[1] (as a % of GDP) is lower than the highest levels reached in the past and is also low by international standards, while private expenditure is comparable to other countries. Public expenditure as a share of GDP declined from 2012 to 2017. In the first few years, the decline was mainly resulting from austerity measures after the global financial crisis, changes in social legislation and demographic reasons. It reached its lowest level in 2017. Despite fluctuations, it remained largely unchanged in 2021 compared to 2020, with a nominal increase and simultaneous GDP growth. However, it still lagged behind the 2010 peak, with the gap being widest in tertiary and upper secondary education. In 2019 (latest international data), public expenditure on education was below the EU average and the average of the 22 EU Member States that are also members of the OECD and much lower than in the economically developed countries with the highest shares (Sweden, Denmark, Belgium and Finland). Only expenditure on basic education was above the EU average, while expenditure on tertiary education lagged most significantly behind. Private expenditure on education amounted to 0.56% of GDP in 2021; according to data for 2019, it was the same as the EU-22 average (0.57% of GDP).

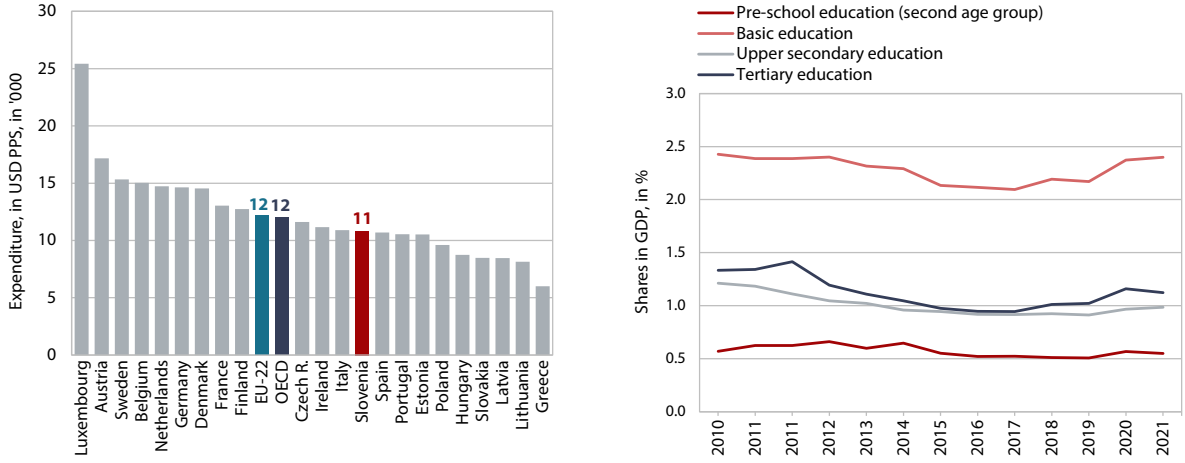
Although expenditure (both public[2] and private) per participant in education mostly increased in the last decade, it remained low by international comparison, which does not contribute to a better quality of education. In 2019, for which internationally comparable data are available, it only exceeded the EU-22 average at the lower secondary level (in Slovenia this includes the third triad of basic schools); a similar trend has been observed for several years. For several years, the largest gap has been recorded at the upper secondary school level (the gap was wider in vocational and technical education than in general upper secondary education), where the participation of young people in education is high, while public and private expenditures are low.

Table: Total public expenditure on education as a share of GDP, in %

	2005	2008	2010	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Slovenia	5.65	5.11	5.55	5.31	5.05	4.95	4.61	4.50	4.49	4.64	4.62	5.07	5.06
EU-22*	5.37	5.35	5.59	5.20	5.31	5.22	4.88	4.78	4.76	4.73	4.75	N/A	N/A
EU-27	N/A	N/A	N/A	N/A	N/A	4.96	4.81	N/A	4.67	4.70	4.70	N/A	N/A

Sources: OECD (2022c), SURS (2023h), Eurostat (2023); calculations by IMAD. Note: N/A – data not available. Until 2018, figures refer to the EU-23 including the UK, and from then to the EU-22.

Figure: Expenditure (public and private) on educational institutions per participant,* 2019 (left); public expenditure on education (as a share of GDP), by education levels, Slovenia, in % (right)**



Sources: OECD (2022c) (left) and SURS (2023h) (right). Note: * Including basic, secondary, upper secondary and tertiary levels of education. ** Data for the first age group of pre-school education is not available for 2010. In 2021, expenditure on this level of education amounted to 0.32% of GDP (2019: 0.29% of GDP).

[1] Total public expenditure on education comprises the total budgetary expenditure on formal education of young people and adults at state and local levels. It includes direct public expenditure on educational institutions and transfers to households (scholarships, subsidised meals, travel tickets, accommodation, textbooks, etc.).

[2] Public expenditure does not include transfers to students/households.

Participation in lifelong learning 2.6

The participation of adults (aged 25–64) in lifelong learning[1] increased sharply in 2021 and was again above the EU average; differences in participation by socio-economic status also increased markedly. Participation has mostly declined since 2010 and continued to decline sharply with the outbreak of COVID-19 in 2020, falling below the EU average for the first time. It rose sharply in 2021, largely due to the increase in webinars during the epidemic, the increased availability of publicly funded training and the wide availability of free training; the data were also impacted by a change in methodology.[2] Participation was 18.9%, which is well above the EU average (10.8%) and behind only Sweden, Finland, the Netherlands and Denmark among all EU Member States. It was very close to the target of the Resolution on the national programme of adult education in the Republic of Slovenia 2022–2030 and the SDS 2030 target (19%). As in the last decade, participation in lifelong learning in 2021 was particularly low among people with low levels of education, older people and immigrants. By regions, the highest share of participation in lifelong learning was recorded in the Osrednjeslovenska region and the lowest in the Pomurska region. In 2021, it increased in all regions, with the highest increase in the Gorenjska and Goriška regions and the lowest in the Primorsko-Notranjska region.

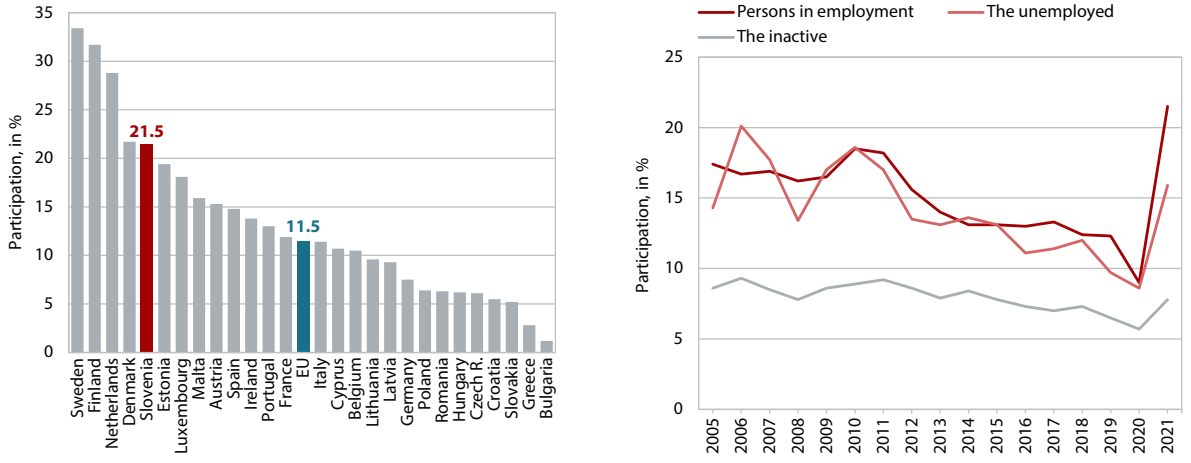
Broken down by activity status, the largest increase in participation in lifelong learning in 2021 was recorded among persons in employment, where it was higher than among the unemployed and inactive. The participation of the unemployed and persons in employment in lifelong learning was above the EU average, while the participation of inactive persons was about the same as the EU average and increased the least compared to 2020.[3] Differences in participation also exist among persons in employment. In the private sector, where the share of the low-educated is higher in relative terms, the participation in lifelong learning was again lower in 2021 than in the public sector; by activities, participation was low in accommodation and food service activities, construction, water supply, sewerage, waste management and remediation activities, manufacturing, and transportation and storage, while it was high in the insurance activities and education.

Table: Participation of the population aged 25–64 in lifelong learning, in %

	2005	2008	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	SDS 2030 target
Slovenia	15.3	14.3	16.4	16.0	13.8	12.5	12.1	11.9	11.6	12.0	11.4	11.2	8.4	18.9	19%
EU	7.7	8.0	7.8	8.1	8.2	9.9	10.1	10.1	10.3	10.4	10.6	10.8	9.1	10.8	

Source: Eurostat (2023).

Figure: Participation of the persons in employment (25–64 years) in lifelong learning in 2021 (left), by activity status (right)



Source: Eurostat (2023).

1 Lifelong learning includes formal and non-formal education.

2 In the Slovenian labour force survey, which serves as the data source for calculating the indicator of adult participation in lifelong learning, the target population from the first quarter of 2021 consists of all residents of Slovenia living in private households, while until the end of 2020 the target population were all residents of Slovenia (SURS, 2023h).

3 In 2021, 17.6% of the employed (EU: 11.5%), 15.9% of the unemployed (EU: 12.7%) and 7.8% of the inactive (EU: 7.9%) participated in lifelong learning (Eurostat, 2023).

Attendance at cultural events 2.7

In 2021, the attendance at cultural events increased, although it was still well below the 2019 levels as certain containment measures were still in place. The average attendance per capita was highest in 2012, owing to the many events hosted by Maribor, the city that held the European Capital of Culture title that year. In the remaining years it amounted to around 5–6 visits per inhabitant. After increasing for the most part in 2009–2019, the total attendance at cultural events fell in 2020 due to COVID-19 containment measures. In 2021, when containment measures were less strict, attendance at cultural events[1] increased but remained far below pre-epidemic levels. In 2021, attendance at musical institutions, which had been declining for several years before the epidemic and also declined in 2020, increased the most among all types of cultural institutions for which data are available and was the only one above the 2019 level. In 2021, theatre attendance declined, continuing the negative trend of the previous two years. Visits to museums and galleries, which were already mostly down before the epidemic, declined further in 2020, followed by an increase in 2021. Attendance at cultural events in houses of culture and cultural centres mostly increased before the epidemic, and these institutions also recorded the highest number of visitors among all types of cultural institutions in 2021. In 2021, the increase in visits to foreign film screenings led to an increase in total number of visits to film screenings, while visits to Slovenian film screenings continued to decline and accounted for 2.3% of total screenings, the lowest in ten years.

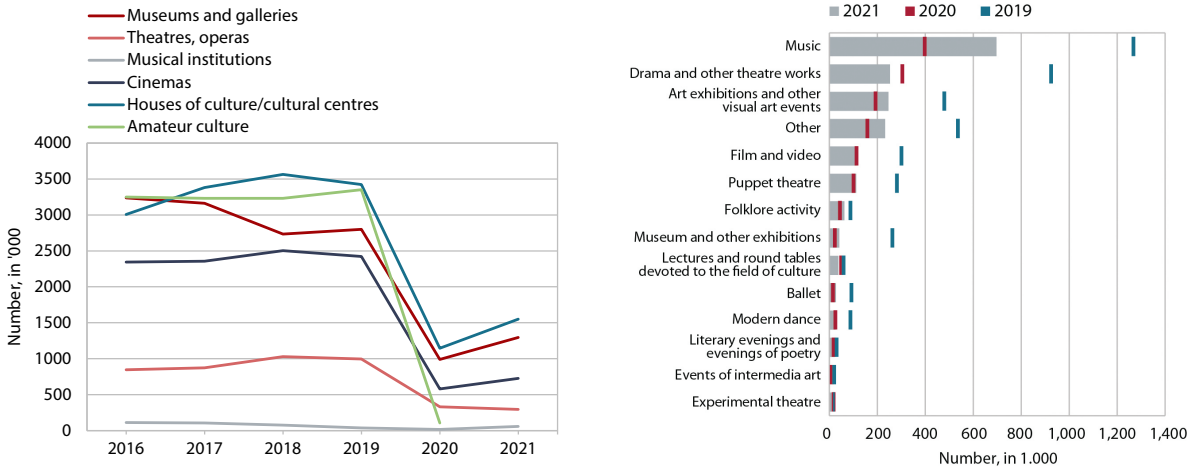
Cultural institutions carry out many activities enriching the cultural offer; in 2021, the number of these activities increased after falling temporarily, though it was still lower than before the epidemic. The number of events held by institutions with stage activity[2] fluctuated between 2016 and 2019 then dropped significantly in 2020, before rising again in 2021, when it was still 36.2% lower than before the epidemic (2019). By type of activity, the highest attendance was recorded for musical events, film and video screenings, followed by events showing dramatic and other theatre works, while the lowest attendance was recorded for ballet events (see Section 2.2). In 2021, institutions with stage activity performed more new works than in the previous year, with a smaller proportion being co-productions with foreign co-producers (3.8%) and with Slovenian co-producers (49.1%). They organised more festivals and many more festival events (by 108%). Museums and galleries organised more exhibitions in 2021 compared to 2020, but still 22.3% less than before the epidemic. Film production, measured by the number of feature films produced, was already increasing before the epidemic, and this continued in 2021 after declining sharply in 2020.

Table: Average attendance at cultural events per inhabitant

	2005	2008	2010	2012	2013	2014	2015	2016	2017	2018	2019	2020	SDS 2030 target
Slovenia	5.0	5.4	6.0	9.6	6.2	5.9	6.3	6.2	6.3	6.3	6.2	2.0	8.0

Sources: SURS (2023h), JSKD (2021), SFC (2022); calculations by IMAD. The indicator includes attendance at theatre events, museums and galleries, cinema screenings, and cultural events organised by cultural associations (amateur activity). As no data on attendance at cultural events organised by cultural associations is available for 2021, it is not possible to calculate the indicator.

Figure: Attendance at cultural events, Slovenia, 2016–2021 (left); attendance at events held by institutions with stage activity by type of event, 2019, 2020 and 2021 (right)



Sources: SURS (2023h), JSKD (2021), SFC (2022) (left) and SURS (2023h) (right); calculations by IMAD.

[1] The indicator includes attendance at theatre events, museums and galleries, cinema screenings, and cultural events organised by cultural associations (amateur activity).
[2] This includes houses of culture and cultural centres, theatres and operas and musical institutions.

Share of cultural events held abroad 2.8

The share of cultural events held abroad[1] was still below the pre-epidemic levels in 2021. Touring is an indirect indicator of the quality of cultural production, as invitations to perform abroad generally signify recognition of good work. After meeting the SDS 2030 target in 2017–2019, the share of cultural events held abroad declined in 2020 following the outbreak of the COVID-19 epidemic and increased to 3.4% in 2021, when containment measures were relaxed, approaching the SDS 2030 target (3.5%). Both the share of events held abroad by museums, which has been declining for several years, and the share of stage-related events held abroad, which declined already a year before the epidemic, increased. Among cultural events held abroad, the share of those held in the EU has been increasing since 2019 (86.7% in 2021), which indicates the growing geographical attachment of Slovenian culture to this area.

The number of visiting events from abroad increased in 2021, though it remained lower than before the epidemic. Visiting events from abroad enrich the offer of cultural events and show the extent of cooperation with cultural institutions from abroad. After a sharp decline in 2020, the number of visiting events from abroad increased in 2021, as did their share (to 4.1%), but only due to theatre activities. More than half of visiting events from abroad came from non-EU countries, while before the epidemic more visiting events came from other EU Member States.

Table: Share of cultural events held abroad in the total number of cultural events, in %

	2015	2016	2017	2018	2019	2020	2021	SDS 2030 target
Slovenia	2.8 (estimate)*	3.1	3.9	5.1	3.9	2.6	3.4	3.5

Source: SURS (2023h). Note: * In 2016, due to a significant revision in the methodology, there was a break in the data series. Data for 2015 are therefore estimated, i.e. adjusted to the methodology used in the surveys "Activity of Houses of Culture, Theatres, Operas and Professional Orchestras and Choirs" (KU-ODER) and "Activity of Museums and Galleries" (KU-MZ) for 2016. The estimate was made by SURS. Data for houses of culture up to 2015 are not available. The sources of data were the surveys "Activity of Museums, Museum Collections, Special Museums for Art Heritage and Art Exhibition Grounds" (KU-MZ), "Activity of Theatres, Operas and Ballet" (KU-GL), and "Activity of Professional Orchestras and Choirs" (KU-FO).

Figure: Share of cultural events held abroad, Slovenia (left); share of visiting cultural events from abroad in Slovenia (right)

Source: SURS (2023h). Note: Theatrical activity includes: (i) theatres, (ii) professional orchestras and choirs and opera, and (iii) houses of culture/cultural centres, cultural institutions and other organisers of cultural events.

[1] The indicator of events held on tours abroad out of the total number of events constitutes a ratio between the number of events held on tours in countries outside Slovenia and the number of all events in the mentioned cultural institutions. Data on cultural events include data for (i) museums, galleries or exhibition grounds, (ii) theatres, (iii) professional orchestras or choirs and opera, and (iv) houses of culture/cultural centres, cultural institutions and other cultural performers. In 2016, due to a significant change in the methodology, a break in the data series occurred. The sources of data are the surveys "Activity of cultural institutions, theatres, operas and professional orchestras and choirs" (KU-ODER) and "Activity of museums and galleries" (KU-MZ).

3 An inclusive, healthy, safe and responsible society

An inclusive labour market and high-quality jobs

A healthy and active life

A decent life for all

Employment rate 3.1

After several years of increase, the employment rate[1] (in the 20–64 age group) decreased in 2020 due to the epidemic; it was higher in the second quarter of 2022 than in 2019.[2] Along with economic growth and increased demand for labour, demographic trends also contributed to the increase in employment rate in the period 2013–2019.[3] The rising trend in employment was interrupted by the epidemic, which led to a significant drop in the employment rate in the second quarter of 2020. In the second quarter of 2021, amid rapid economic recovery, employment already reached approximately the level of the same period in 2019 and would have been recorded even higher without the change in methodology.[4] In 2022, in a situation of severe labour shortage, the employment rate exceeded the level recorded in the second quarter of 2019. The continuation of unfavourable demographic trends also contributed to an increase in the employment rate. In the second quarter of 2022, the employment rate of young people was still significantly lower than before the epidemic, as the demand for student labour fell sharply after the outbreak of the epidemic (more precisely in the second quarter of 2020). The employment rate among older workers (55–64 years) increased slightly in 2020 despite the crisis and continued to increase in 2021 and 2022, narrowing the gap with the EU average (to 5.9 p.p. in the second quarter of 2022). After several years of increase, the employment rate of people with low educational attainment fell sharply due to the COVID-19 crisis, so that despite an increase in 2022, it still lags behind pre-crisis levels. This was due to the high proportion of low-educated workers in the sectors that were most affected by the containment measures during the epidemic.

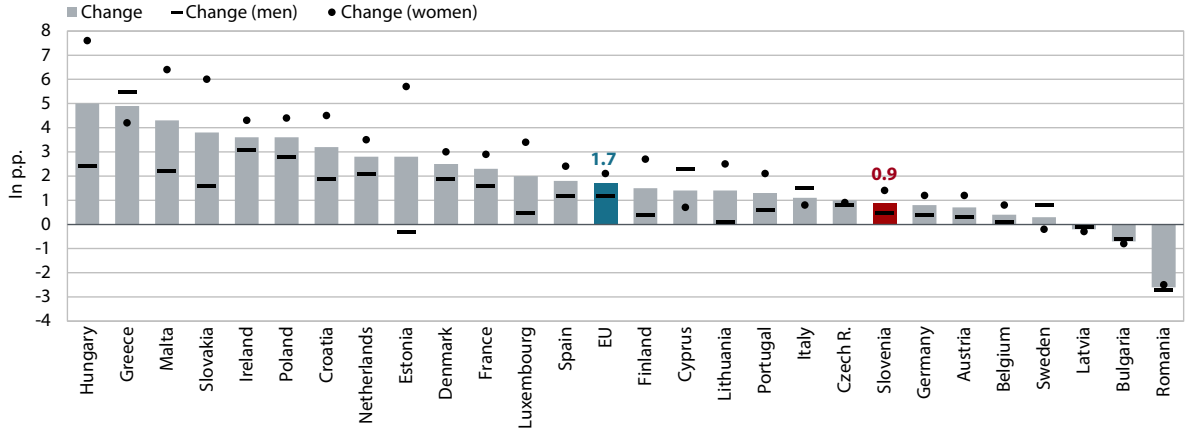
The employment rate continued to rise in most regions in 2022 and was mostly above the 2019 (pre-epidemic) levels. The largest year-on-year increase was recorded in the Obalno-Kraška region (by 4.1 p.p.), which experienced the sharpest decline in economic activity (Indicator 1.8) in 2020. The largest increase compared to 2019 was recorded by the Primorsko-Notranjska region and the largest decrease by the Goriška region. The highest employment rate was recorded in the Gorenjska region (81.2%), while the Osrednjeslovenska and Obalno-Kraška regions also exceeded the national average.

Table: Employment rate of the population aged 20–64, in %

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	SDS 2030 target
Slovenia	72.9	72.1	70.7	68.6	68.1	67.1	68.4	69.4	70.6	73.4	75.5	77.1	74.9	76.8	78.0	> 75* (79.5)**
EU	69.7	68.5	68.0	68.1	67.8	67.6	68.2	69.0	70.1	71.4	72.4	73.2	71.5	72.9	74.9	

Source: Eurostat (2023). Note: Data for individual years refer to the second quarter. * SDS 2030 target, which Slovenia has already exceeded. ** National Reform Programme 2022 target.

Figure: Year-on-year change in employment rates (in the age group of 20–64) by gender between Q2 2019 and Q2 2022, EU



Source: Eurostat (2023).

[1] This is the share of persons in employment (employees and self-employed) in a certain age group.
[2] It was above the Q2 2019 level by 0.5 p.p. in men and by 1.4 p.p. in women.
[3] Demographic trends had a mechanical effect on the increase in the employment rate: the number of employed persons aged 20–64 increased by 90,000 persons in the period Q2 2013–Q2 2019 (included as numerator in the calculation), while the number of persons in this age group decreased by 53,000 persons in the same period (included as denominator in the calculation). The mechanical effect of a lower denominator and a higher numerator increased the participation rate.
[4] As a result of the change in methodology in early 2021, persons whose duration of layoff was longer than three months or was expected to be longer than three months are now excluded from the total number of employed persons. They are now included either in the category of unemployed (if they are actively seeking work) or in the group of inactive persons. Due to the higher participation of workers in the measures, this methodological change slightly lowered the employment rate in the second quarter of 2021. See Section 3.1.

In-work at-risk-of-poverty rate 3.2

The in-work at-risk-of-poverty rate,[1] which fell sharply in 2019, increased slightly in 2020 and remained unchanged in 2021. According to EU-SILC 2021 (based on 2020 income), 5% of persons in employment aged 18 and over were at risk of poverty in 2021, the same as in 2020. The in-work at-risk-of-poverty rate for people aged 18 and over has been below the EU average in Slovenia for the last decade and reached its lowest level in 2019 (4.5%; EU: 9.2%). For women, it was 4.4% in 2021, having increased by 1.2 p.p. in the previous two years, while for men it remained largely stable in the previous three years (5.4%). In terms of age, the at-risk-of-poverty rate is lowest in the 55–64 age group,[2] where it was 3.9% in 2021 (EU: 8.5%). In our estimation, the low at-risk-of-poverty rate in this age group is influenced by the seniority allowance system, which grants older employees higher wages than younger employees in the same occupations. Broken down by educational attainment, the at-risk-of-poverty rate is lowest among high-skilled people (tertiary educated). In 2021, 3.2% of them were at risk of poverty (EU: 4%), compared to 13% of those who are low-skilled (19.8%). The at-risk-of-poverty rate among high-skilled people has increased in Slovenia in the last two years (by 0.9 p.p.), while it has slightly decreased on average in the EU.

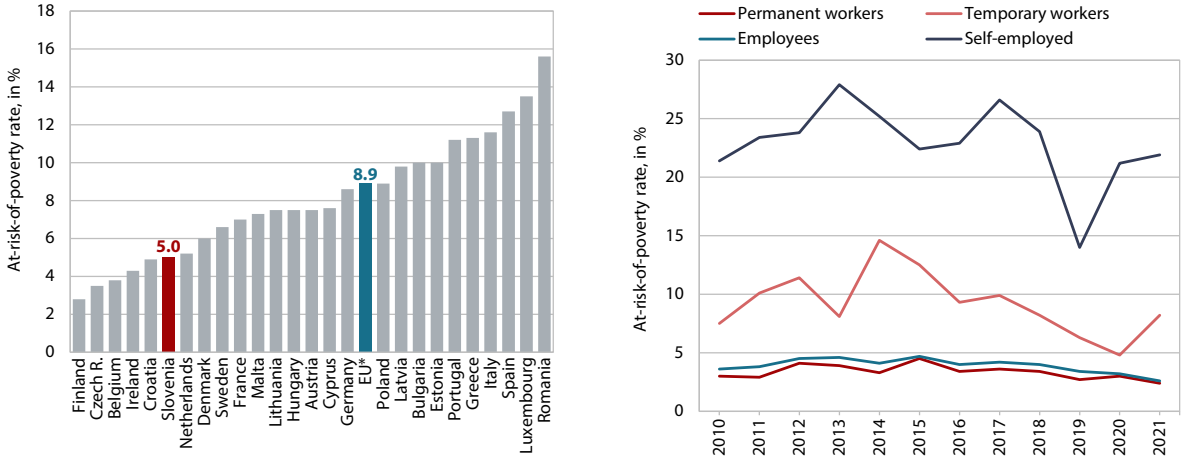
Similarly to other countries, the in-work at-risk-of poverty rate in Slovenia is higher among temporary and part-time employees and the self-employed. Over the past decade, the highest at-risk-of-poverty rate for permanent employees was recorded in 2015, when it was 4.5%. In 2021 (based on 2020 income), it was 2.4%, the lowest since data became available. In 2021, the increase in the at-risk-of-poverty rate for temporary workers stood out and may be related to job-retention measures that employers applied mainly to permanent employees, while temporary workers were more likely to lose their jobs. In 2021, the at-risk-of-poverty rate for part-time workers was 9.2%, which is 4.7 p.p. more than for full-time workers (4.5%).[3]

Table: In-work at-risk-of-poverty rate for the age group 18 or older, in %

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	SDS 2030 target
Slovenia	5.3	6.0	6.5	7.1	6.4	6.7	6.1	6.6	6.0	4.5	5.0	5.0	< 5
EU*	8.3	8.8	8.9	9.0	9.5	9.5	9.6	9.4	9.4	9.2	8.8	8.9	

Sources: Eurostat (2023), EU-SILC 2021 data (based on 2020 income). Note: * Data for the EU average are Eurostat's estimate.

Figure: In-work at-risk-of-poverty rate (for the age group 18 or older) (left); in-work at-risk-of-poverty rate by employment type (right), 2021



Sources: Eurostat (2023), EU-SILC 2021 data (based on 2020 income). Note: * Data for the EU average are Eurostat's estimate.

[1] The in-work at-risk-of-poverty rate is the percentage of persons living in households where the equivalised total disposable household income is below the at-risk-of-poverty threshold (i.e. below 60% of median equivalised disposable income of all households) (Intihar, 2022).
[2] The in-work at-risk-of-poverty rate for people aged 25–54 in 2021 was 5% in Slovenia and 4.3% among young people aged 20–29.
[3] The average at-risk-of-poverty rate for part-time workers in the EU was 13.2%, which is 5.8 p.p. more than for full-time workers (7.4%).

Unemployment and long-term unemployment rates 3.3

According to the survey data, the unemployment rate in Slovenia increased in the initial phase of the epidemic, though it returned to pre-epidemic levels in the second quarter of 2022 and remained well below the EU average. In the period 2014–2019, it decreased while employment increased. It fell most for those with low levels of education, and the decline was similar for men and women. The focus of active labour market policy on young people and the increased volume of student work contributed to a rapid decline in youth unemployment (15–24 years) by 2019.[1] Due to the epidemic and the sharp decline in economic activity as a result of the containment measures, unemployment rose in 2020, most sharply in the second quarter,[2] but the increase was much smaller than it would have been without the job-retention measures. The largest increase was for those with a low level of education and for women.[3] Broken down by age, the sharp decline in economic activity hit young people (15–24 years)[4] in the labour market the hardest, especially due to a sharp drop in student work. In the context of the rapid economic recovery in the second half of 2020, unemployment fell again and in the second quarter of 2021 was almost at the same level as in the same period of 2019 and well below the EU average, where it rose. The decline in Slovenia continued in 2022 amid very high demand for labour, reaching pre-crisis levels; it remained higher only for people with a low level of education. The youth unemployment rate was still significantly higher in the second quarter of 2022 but was below the EU average at 12.4%.

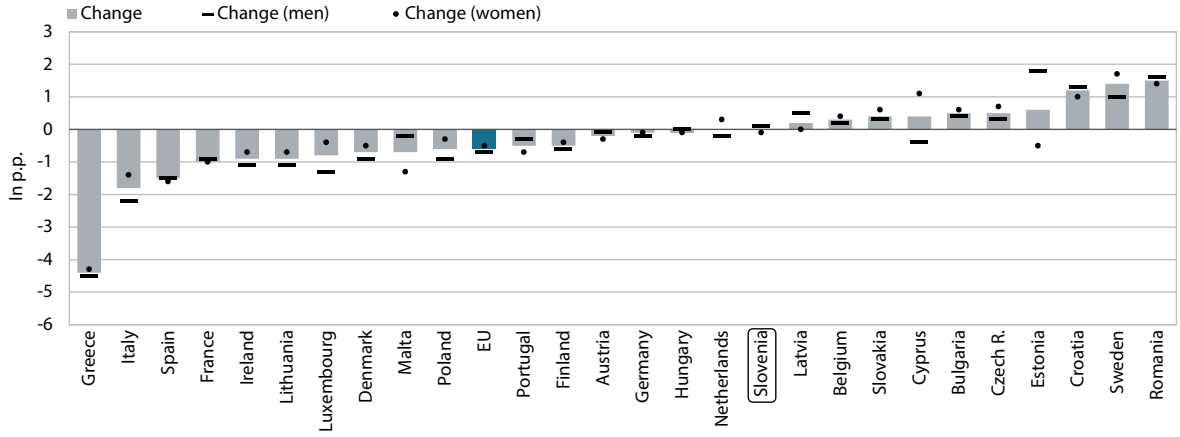
According to the survey data, the long-term unemployment rate[5] in Slovenia has not changed significantly over the last four years, while the EU average has seen a more dramatic change. After a sharp deterioration at the beginning of the global financial crisis, the situation in Slovenia initially improved during the period of economic growth only for those with shorter unemployment duration, but since 2015, in the context of increasing labour shortage, the number of long-term unemployed has also decreased. In the wake of the COVID-19 crisis, Slovenia's long-term unemployment rate increased slightly in 2020 and remained largely unchanged and below the EU average until the second quarter of 2022. However, the share of long-term unemployed in the total number of unemployed remained higher than the EU average.

Table: Unemployment and long-term unemployment rates (15–74 years), in %

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Unemployment rate															
Slovenia	4.1	5.6	7.1	7.7	8.2	10.4	9.3	9.2	7.8	6.4	5.2	4.2	5.2	4.4	4.2
EU	7.1	9.0	9.8	9.6	10.6	11.3	10.8	10.1	9.2	8.1	7.3	6.6	6.7	7.2	6.0
Long-term unemployment rate															
Slovenia	N/A	1.7	3.2	3.6	3.9	5.1	5.3	4.7	4.3	3.3	2.3	1.7	2.0	1.9	2.0
EU	N/A	2.9	3.9	4.2	4.8	5.4	5.4	5.0	4.4	3.7	3.2	2.7	2.1	2.9	2.4

Source: Eurostat (2023). N/A – data not available; data for individual years refer to the second quarter.

Figure: Change in unemployment rate (15–74 years) by gender between Q2 2019 and Q2 2022



Source: Eurostat (2023).

[1] In the second quarter of 2019, the unemployment rate for the 15–24 age group was 6.5%.
[2] In 2020, the unemployment rate increased by 0.5 p.p. to 5.0%.
[3] The unemployment rate among women, which was at a record low in the second quarter of 2019 (4.7%), rose to 5.9% in the same period of 2020.
[4] This was the third highest year-on-year increase among EU Member States in Q2 2020, but the rate still remained below the EU average.
[5] This is the share of long-term unemployed (unemployed for one year or more) in the labour force in a given age group.

Temporary and precarious employment 3.4

After a decline during the epidemic, the share of temporary employment increased slightly, but it remained lower than before the epidemic. In the wake of the epidemic, companies responded to the crisis by not renewing fixed-term contracts and reducing demand for student workers, leading to a significant drop in the share of temporary workers in Q2 2020. In Q2 2022, the share of women in temporary employment was lower than in Q2 2019, while the share of men was slightly higher. The share of young people (aged 15–29) in temporary employment, who are also the most exposed to this form of work, exceeded the 2019 (pre-COVID-19 crisis) levels in most EU Member States, but in Slovenia, despite the increase since 2020, it was much lower than in 2015–2017, when it was above 50%. The share of young people in temporary employment has been well above the EU average over the last decade. The share of persons in temporary employment in Slovenia decreases faster with age than on average in the EU, as the share of temporary employment among those aged 55–64 was 36.2 p.p. lower than among young people (aged 15–29).[1] Young people who could not find a permanent job accounted for the largest share of all temporary workers both in Slovenia and in the EU as a whole.[2]

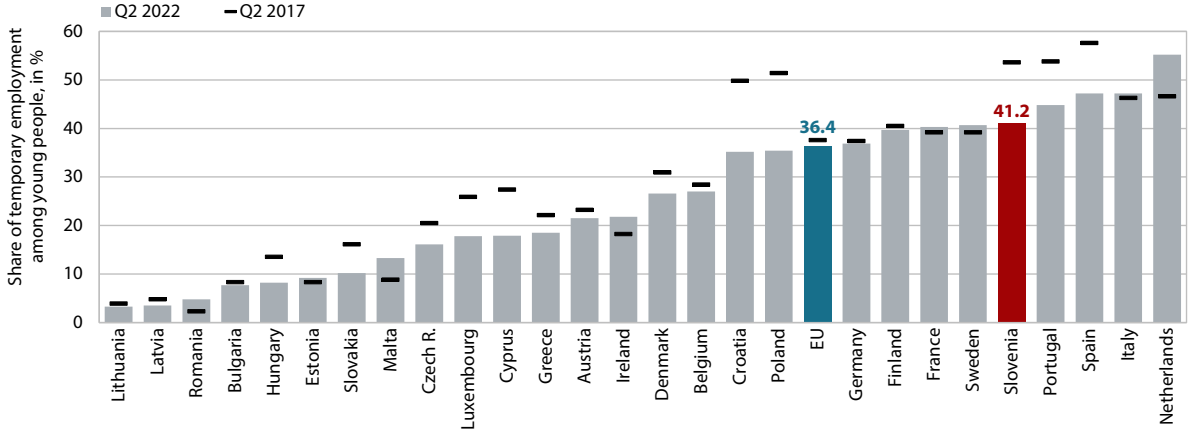
The share of precarious employment[3] has been decreasing since 2017 and fell below the EU average in 2021. In 2021 (the latest available data), it was 1.4%, which is the lowest share since measurements started (in 2008). After 2017, the EU average share also fell significantly (to 1.5% in 2021). The significant decline in the share of precarious employment in 2021 in all EU Member States was also influenced by a methodological change[4] in the recording of persons in employment. However, the labour shortage in Slovenia, which forces employers to offer more permanent positions to attract workers, also has a significant impact on the decline since 2017.

Table: Share of precarious and temporary employment in total employment (20–64 years), in %

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Share of temporary employment*													
Slovenia	16.9	16.9	16.3	15.2	16.1	17.3	16.7	17.1	15.5	12.6	9.3	11.1	11.4
EU	14.1	14.4	14.1	14.0	14.6	14.7	14.7	14.7	14.7	14.1	12.1	13.1	13.3
Share of precarious employment													
Slovenia	4.3	4.8	4.4	3.9	4.1	4.6	4.2	4.5	3.7	2.6	2.5	1.4**	N/A
EU	2.3	2.4	2.4	2.3	2.4	2.5	2.5	2.5	2.4	2.3	2.0	1.5**	N/A

Source: Eurostat (2023). Note: * Data refer to the second quarter of the year; ** break in the time series due to methodological changes; N/A – data not available.

Figure: Share of temporary employment among young people (15–29), in %



Source: Eurostat (2023).

[1] On average in the EU, the share of temporary workers in the 50–64 age group was 6.7%, 29.7 p.p. lower than in the 15–29 age group.
[2] In Slovenia, young people accounted for 28.3% of all temporary workers in 2021 (latest available data), compared to the EU average of 37.9%.
[3] The measurement of the extent of precarious work is insufficient due to the many dimensions of such work, as often only one dimension is considered in the measurement. Eurostat, for example, defines as precarious work only temporary work with a contract of three months or less, thus highlighting only one dimension of precarity. These Eurostat data are used in our analysis because they are internationally comparable and available annually. However, elements of precarity can also be found in other forms of work.
[4] The methodological change is described in Section 3.1.

Activity rate 3.5

The growth in the activity rate,[1] which was interrupted by the epidemic, continued in the last two years. The activity rate of people aged 20–64 had been steadily increasing in Slovenia and in the EU as a whole until the beginning of 2020 due to favourable economic conditions and good employment prospects, which also attracted people with low employment prospects, who often do not even look for a job, to the labour market. In the second quarter of 2020, it declined significantly due to COVID-19 containment measures, i.e. the suspension of certain activities, social distancing, lower labour demand and more people transitioning to inactivity.[2] The decline in the activity rate in Slovenia in the second quarter of 2020 was lower than the EU average. After the containment measures were eased, the demand for labour started to increase, contributing to the resumption of growth in the activity rate, although the increase was lower than the EU average.

After the number of inactive people increased in 2020, it declined again until 2022. The number of inactive people aged 20–64 was 8.7% higher in Q2 2020 than in the same period of 2019 (EU average: 8%) and decreased by 8.6% by Q2 2022 as economic activity picked up (EU average: 8%). This suggests a similar labour market adjustment through an increased transition to inactivity during the COVID-19 crisis and a re-entry into the labour market when economic activity recovered in 2021 and 2022.

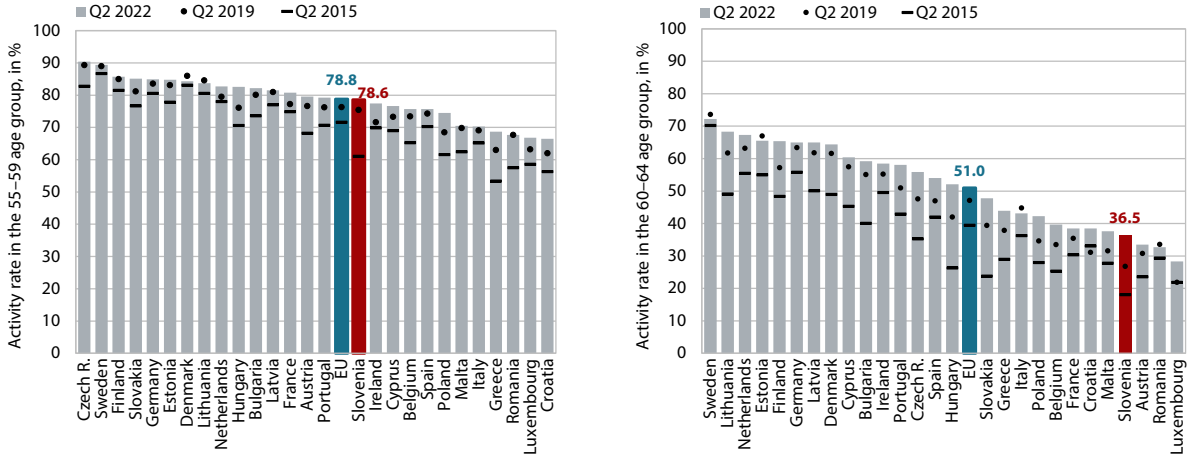
Despite having one of the highest activity rates among persons aged 20–64 years, Slovenia still has one of the lowest activity rates among older people (aged 60–64). In the second quarter of 2022, the activity rate for the 55–64 age group was 63.3% (EU: 72.1%). In recent years, Slovenia has almost completely closed the gap in the 55–59 age group.[3] However, a large gap remains in the 60–64 age group (Slovenia: 36.5%, EU: 51%). Given the strong demand for labour and later retirement due to pension legislation, which in recent years has further increased incentives to stay longer in the labour market, the activity rate in this group is also rising.

Table: Activity rate in the 20–64 age group,* in %

	2010	2011	2012	2013	2014	2015	2016	2015	2017	2018	2019	2020	2021	2022
Slovenia	76.1	74.3	74.2	75.0	75.5	76.5	76.5	77.6	78.4	79.6	80.5	79.0	80.2	81.3
EU	75.2	75.1	75.7	76.0	76.3	76.6	77.1	77.6	78.0	78.3	76.6	78.4	76.6	78.4

Source: Eurostat (2023). Note: * Data for individual years refer to the second quarter.

Figure: Activity rate in the 55–59 age group (left) and in the 60–64 age group (right)



Source: Eurostat (2023).

[1] The activity rate is the percentage of active persons (persons in employment and unemployed persons) in relation to the total population in a certain age group.
[2] In the second quarter of 2020, the amount of student work was 50% lower year-on-year.
[3] In the second quarter of 2022 it totalled 78.6%, which is comparable to the EU average (78.8%).

Absence from work due to illness 3.6

In 2022, absence from work due to illness in Slovenia increased sharply again. Amid high employment, absence from work due to illness increased by 15.2% in 2021 and by 21% in 2022 (as much as 25% of all days lost in 2022 were related to isolations due to COVID-19 infections). With the exception of 2020, absence from work due to illness has increased since 2014 due to rapid employment growth, later retirement, longer waiting times in the health sector and an ageing workforce. Absence from work is significantly higher among women, and the gender gap is widening from year to year. This is partly due to women working full-time, with women being more likely to be absent from work to care for their children than men, and partly due to poor regulation of long-term care (women are the predominant providers of informal care). In 2022, the mandatory 10-day isolation for people with COVID-19 led to a sharp increase in childcare benefits. According to the National Institute of Public Health (NIJZ), employed persons were absent from work for an average of 19.2 calendar days in 2021, the share of absence from work due to illness[1] averaging 5.3%. According to the NIJZ's first estimate, absence from work due to illness further increased to 6.1% in 2022.[2]

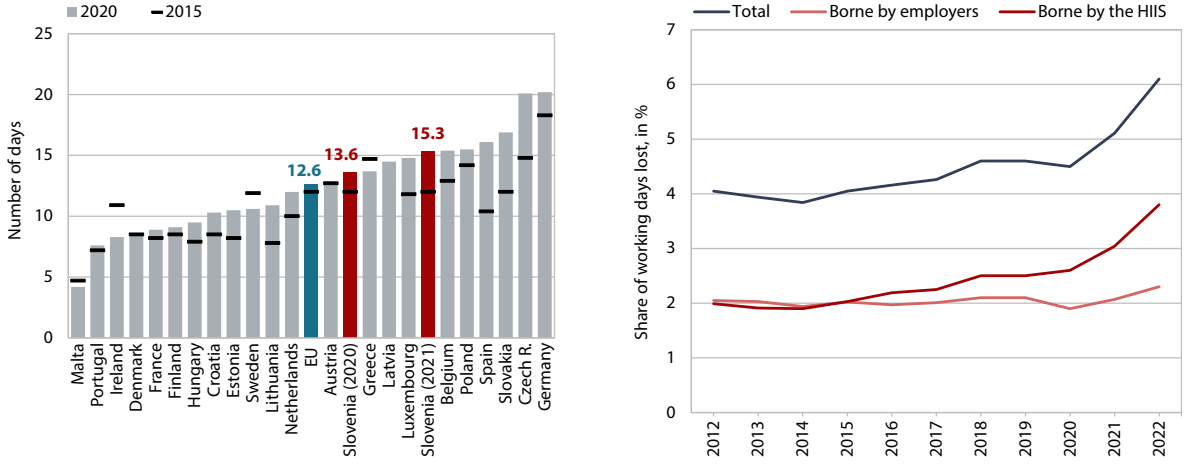
In terms of working days lost per employee, Slovenia increasingly exceeds the EU average. In 2021, the number of working days lost reported to international databases[3] increased significantly, to 15.3 compensated working days lost, compared to 12.6 in the EU (WHO (2023b) estimate for 2019).[4] In Slovenia, the right to wage compensation for temporary absence from work is not limited in amount or duration, and the accrual rates for calculating the compensation are high compared to other countries (HIIS, 2023).

Table: Absence from work due to illness

Indicators		2008	2015	2016	2017	2018	2019	2020	2021
Number of days lost per employee (Internationally comparable indicator)	Slovenia	11.5	12.0	12.2	13.1	13.5	13.6	13.6	15.3
	EU*	11.7	12.0	12.2	12.2	12.6	12.6	N/A	N/A
Number of calendar days lost per employee (NIJZ)	Total	15.5	14.5	14.5	15.3	16.5	17.7	17.9	19.2
	Men	13.2	12.0	11.8	12.4	13.2	14.0	14.2	15.6
	Women	18.6	17.5	17.6	18.8	20.4	22.3	22.5	23.7
Absence rate (percentage of calendar days lost per full-time employee, in %) (NIJZ)	Total	4.3	4.0	4.0	4.2	4.5	4.9	4.9	5.3
	Men	3.6	3.3	3.2	3.4	3.6	3.8	3.9	4.3
	Women	5.1	4.8	4.8	5.2	5.6	6.1	6.2	6.5

Sources: NIJZ (2023), WHO (2023b). Note: * Data for the EU is WHO estimate – data is available for 23 countries; N/A – data not available.

Figure: Number of working days lost per worker* (left); absence rate (right)



Sources: OECD (2023b) for OECD members, WHO (2023b) for Croatia, Poland, Malta, Greece and EU average (left), and HIIS (2023) (right). Note: * Data for Portugal, Malta and Croatia refer to 2017 and data for France, Greece and the EU average refer to 2019; data for Finland and Greece are survey-based, while data for all other countries are based on administrative data on paid absence from work due to illness.

[1] Percentage of calendar days of incapacity for work per full-time employee.
[2] Since 2015, the proportion of absence from work due to illness whose costs are covered by the HIIS has increased (from 46% in 2008 to 62% in 2022) (HIIS, 2023).
[3] Excluding the first day of absence and absence to care for a family member.
[4] However, the international comparability of this indicator is limited because of methodological differences in data capture and differences in the health and social care systems and in eligibility criteria for sickness benefits.

Healthy life years 3.7

In 2020, healthy life expectancy at birth[1] in Slovenia exceeded the EU average. The more years that a person on average spends healthy, the less pressure there is on social protection systems due to early retirement and greater demand for health and long-term care services. A SURS (2019) analysis showed that the very low value of this indicator in Slovenia in recent years was mainly related to inadequate translation and the method of surveying, which was already partially corrected in 2019 and fully corrected in 2020. The indicator for 2020 shows that a person can expect 65.1 years of healthy life or life without limitations (EU: 64 years), falling short of the SDS target only in the number of healthy life years for men. Healthy life expectancy at the age of 65 is higher in Slovenia than the EU average (SI: 10.3 years; EU: 9.8 years). According to the latest data, Slovenia no longer lags behind the EU in terms of the share of healthy life years in relation to life expectancy.[2] In 2020, healthy life years represented on average 80.8% of the total life expectancy in Slovenia (EU: 79.7%). The significant decline in life expectancy in 2020 (related to higher mortality due to COVID-19) has led to a slight increase in the share of healthy life years also in the EU as a whole, despite the epidemic.

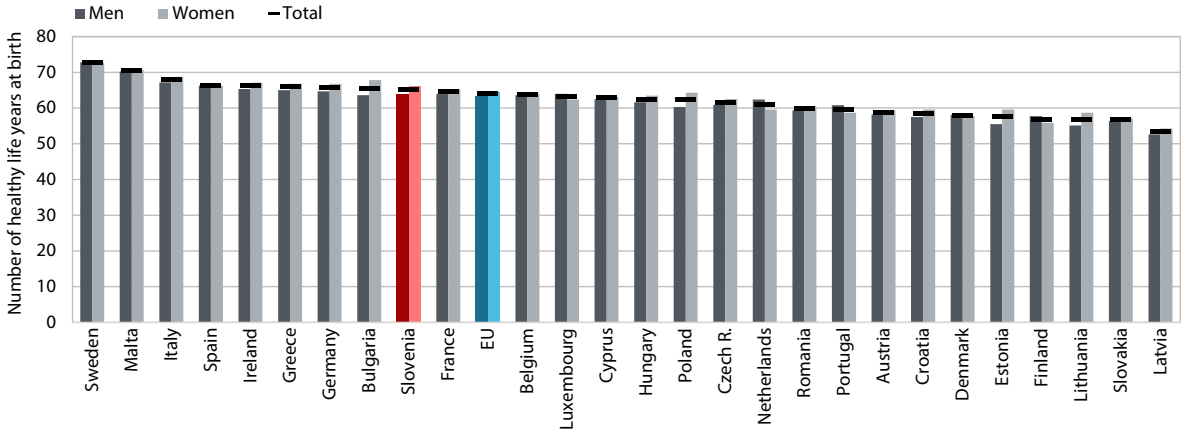
At the regional level, the indicator shows considerable variations. Expectancy of life without limitations at birth was the longest for men in the Obalno-Kraška region (70.9 years or 89% of life expectancy), where it was about 10 years longer than in the Podravska region. Among women, the highest number of healthy life years was recorded in the Gorenjska region (70.6 years or 84.5% of life expectancy), which was also about 10 years more than in the lowest-ranked region, Pomurska. Among people aged 65, the highest number of healthy life years was recorded for men in the Obalno-Kraška region (12.3 years) and for women in the Gorenjska and Osrednjeslovenska regions (13.1 years), almost twice as many (the same for both sexes) as in the lowest-ranked regions. In most regions, the number of healthy life years for women was higher than for men (the largest difference – 5.4 years – was seen in Jugovzhodna Slovenija), with the exception of the Zasavska and Obalno-Kraška regions. In the latter region, men enjoyed 3.2 more healthy life years than women.

Table: Expected healthy life years at birth and the proportion of healthy life years in LE*

	Number of healthy life years at birth (years)								Share of healthy life years in LE,* in %					
	Women				Men				Women			Men		
	2010	2019	2020	SDS 2030 target	2010	2019	2020	SDS 2030 target	2019	2020	SDS 2030 target	2019	2020	SDS 2030 target
Slovenia	54.6	61.2	66.3	64.5	53.4	60.8	63.9	64.5	72.4	79.6	75.0	77.3	82.1	80.0
EU	62.2	65.1	64.5		61.3	64.2	63.5		77.5	77.6		81.8	81.9	

Source: Eurostat (2023). Note: In 2019, there was a change in the EU-SILC survey approach, on the basis of which the healthy life expectancy indicator is calculated. In 2020, translation of the survey questions was changed. * LE – life expectancy.

Figure: Healthy life years expectancy at birth, 2020



Source: Eurostat (2023). Note: The countries are ranked according to the average number of years that men and women spend in a healthy state.

[1] The indicator of healthy life years measures the number of remaining years that a person of a specific age is expected to live without disability or activity limitations (combines data on mortality and limitations). It is based on self-perceived limitations people have experienced, because of health problems, in carrying out their everyday activities for at least six months, as measured by the Global Activity Limitation Indicator (EU-SILC).

[2] A decline in the share of healthy life years in life expectancy means a deterioration; an increase signifies an improvement.

The Gender Equality Index 3.8

In 2021 and 2022, the Gender Equality Index[1] for Slovenia was below the EU average. Until 2017, the country had progressed faster than the majority of EU Member States in terms of gender equality, but since then its progress has come to a halt. In 2021, it was already slightly below the EU average, and in 2022 the gap to the EU widened further. The deterioration last year was mainly due to slightly lower scores in health and knowledge, while in 2017–2022 inequalities widened in the area of power. In order to meet the SDS 2030 target (> 78), Slovenia should improve its Gender Equality Index (GEI) score by more than 10 points by 2030.

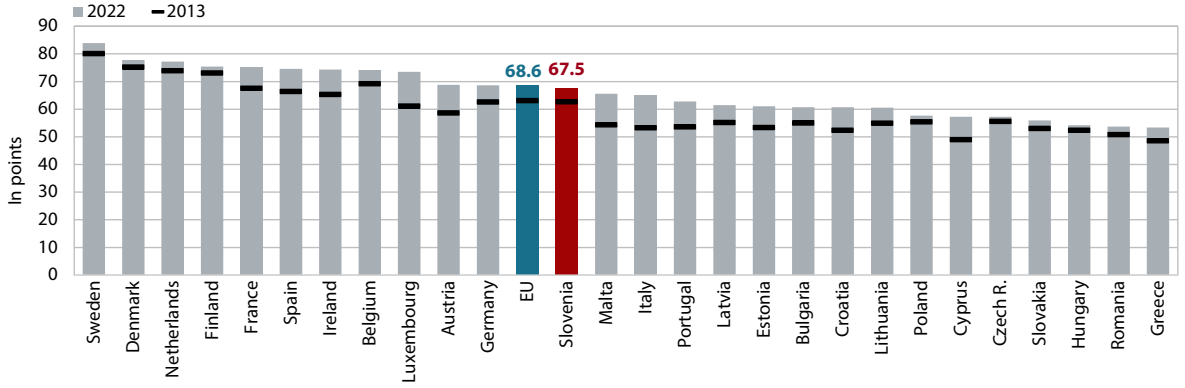
Since 2010, Slovenia has achieved the highest scores in the areas of health and money, while gender inequalities have been the most pronounced in the areas of knowledge and power. In the field of health, the lifestyle of both men and women deteriorated in 2014–2019, but health-related risk behaviours are more prevalent among men.[2] Men more often than women consider that they are in good or very good health, although women live almost six years longer on average than men. In the field of knowledge, the proportion of women with tertiary education is still higher than the proportion of men, and the unequal concentration of women and men in different fields of study remains a challenge. Gender segregation is thus present in various labour market sectors.[3] The gender gap in employment rate narrowed, while the adjusted wage gap is still around 12% (see Section 3.1). After the introduction of gender quotas on candidate lists, women's political participation had increased sharply since 2011, but in 2018–2021 it was low again and was below the EU average. According to the latest data for 2022, the share of women in the Slovenian Parliament (37.8%, EU: 32.4%) and the share of women ministers (38.9%, EU: 32.3%) increased (EIGE, 2022c). The proportion of women in leadership positions in largest listed companies remains relatively low and below the EU average. Women still spend more hours on care and unpaid housework than men. During the epidemic, 40% of women (EU: 40%) and 22% of men (EU: 21%) spent more than four hours a day caring for children or grandchildren aged 0–11, and 15% of women (EU: 20%) and 6% of men (EU: 12%) spent more than four hours per day on housework (EIGE, 2022a).[4]

Table: Gender Equality Index (GEI)

	Slovenia								EU						
Year of publication	2013	2015	2017	2019	2020	2021	2022	SDS 2030 target	2013	2015	2017	2019	2020	2021	2022
Reference year*	2010	2012	2015	2017	2018	2019	2020		2010	2012	2015	2017	2018	2019	2020
GEI	62.7	66.1	68.4	68.3	67.7	67.6	67.5	> 78	63.1	64.4	65.7	66.9	67.4	68.0	68.6
Health	86.8	87.3	87.7	87.1	86.9	87.8	86.9		86.7	86.7	87.1	87.8	87.8	87.8	88.7
Money	80.3	81.3	81.6	82.4	83.0	83.7	83.9		79.1	79.1	80.1	81.1	81.6	82.4	82.6
Work	71.9	71.3	71.8	73.3	73.1	73.0	73.4		69.7	70.2	70.6	71.1	71.4	71.6	71.7
Time	68.3	72.4	72.9	72.9	72.9	72.9	72.9		65.2	68.1	64.9	64.9	64.9	64.9	64.9
Knowledge	55.0	54.9	55.0	56.0	55.9	56.6	56.0		59.8	61.1	62.4	62.6	62.8	62.7	62.5
Power	41.1	51.5	60.6	57.6	55.0	53.0	53.3		41.9	43.6	48.4	51.6	53.1	55.0	57.2

Source: EIGE (2022c). Note: An index value of 1 means total inequality and 100 full equality. * The data for the calculation of the GEI include the latest available data (for 2022, the index was calculated based on 2020 data).

Figure: Gender Equality Index, 2013 and 2022



Source: EIGE (2022c). Note: An index value of 1 means total inequality and 100 full equality. The data for calculating the index for 2022 are mostly from 2020 and for 2013 from 2010.

[1] Based on 31 indicators, the Gender Equality Index measures progress and gaps between women and men in six areas (see table). The calculation is based on the latest available data (for 2022, the index is calculated based on 2020 data). For more, see EIGE (2022b: 115–119).
[2] For the calculation of the 2022 Index, new data for 2019 were available for the sub-domain of health behaviour after a period of five years.
[3] In 2020, 29% of women were employed in education, health and social work, compared to only 6% of men (EIGE, 2022a).
[4] In June and July 2021, the EIGE conducted a survey on gender equality and the socio-economic impact of the pandemic.

Life expectancy 3.9

In 2020, life expectancy[1] at birth in Slovenia and in the EU as a whole decreased by about one year, due to the epidemic and associated higher mortality, while in 2021 Slovenia was among the 12 EU Member States where life expectancy did not decrease.[2] In 2020, life expectancy in Slovenia (80.6 years) fell to around the 2013 level, while it increased by just over one month in 2021. The number of deaths in 2020 and 2021 was higher than the 2015–2019 average (by 18.8% and 15% respectively).[3] In both years of the epidemic, excess mortality was observed in the age groups above 60 years (when looking at age groups by 10-year bands), while in persons below 60 years it was only observed in the 40–49 age group. As mortality was higher among older people, the average age at death was still higher than before the epidemic, while the premature mortality rate[4] was lower. Life expectancy at age 65 was 19.3 years in 2021, almost 10 months lower than in 2019. In 2021, men aged 65 could expect to live another 17.2 years (EU: 17.3 years), while women could expect to live another 21.3 years (EU: 20.9 years). The number of indirect deaths related to the unavailability of preventive and emergency health services and psychosocial support remains unknown (OECD and EU, 2020).

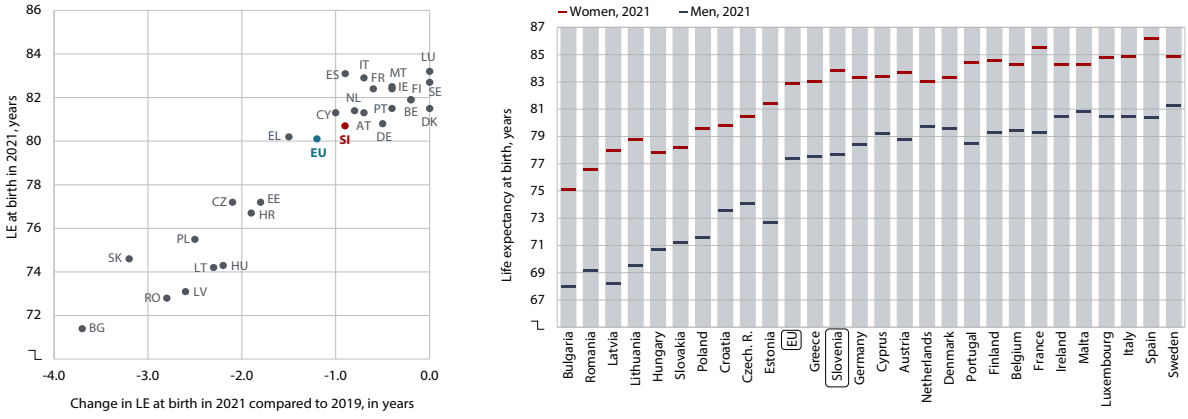
In 2021, life expectancy increased in most regions, especially among women. The largest increase among women was recorded in the Gorenjska region (by 1.5 years) and among men in the Primorsko-Notranjska region (by 0.6 years). Compared to 2019, life expectancy increased the most for women in the Goriška region (by 0.8 years) and for men in the Primorsko-Notranjska region (by 1.1 years), while it decreased the most for women in the Zasavska region (by 3 years) and for men in the Savinjska region (by 1.5 years). In 2021, the difference in life expectancy between the two extreme regions was about three years – women in the Obalno-Kraška region and men in the Osrednjeslovenska region had the longest life expectancy at birth (84.9 and 79.1 years respectively), while women in the Zasavska region and men in the Pomurska region had the shortest (81.8 years and 75.8 years respectively) . Premature mortality increased in most regions compared to 2020, most significantly for women in the Pomurska region (by 3.3 p.p. to 9.9%) and for men in Jugovzhodna Slovenija (by 4.3 p.p. to 23.6%), and in some regions it was above 2019 levels for women.

Table: Life expectancy at birth, in years

		2000	2005	2008	2010	2012	2016	2017	2018	2019	2020	2021
Slovenia	Total	76.2	77.5	79.1	79.8	80.3	81.2	81.2	81.5	81.6	80.6	80.7
	Men	72.2	73.9	75.5	76.4	77.1	78.2	78.2	78.5	78.7	77.8	77.7
	Women	79.9	80.9	82.6	83.1	83.3	84.3	84.0	84.4	84.5	83.4	83.8
EU	Total	N/A	78.4	79.3	79.8	80.2	80.9	80.9	81.0	81.3	80.4	80.1
	Men	N/A	75.1	76.1	76.7	77.1	78.0	78.1	78.2	78.5	77.5	77.2
	Women	N/A	81.5	82.4	82.9	83.1	83.7	83.6	83.7	84.0	83.2	82.9

Source: Eurostat (2023). Note: N/A – data not available.

Figure: Life expectancy at birth in 2021 compared to 2019 (left); by sex (right)



Source: Eurostat (2023). Note: Countries are ranked according to their total life expectancy.

[1] The average number of years that a person at a given age can expect to live, under the assumption that age-specific mortality rates remain constant throughout their lifetime (i.e. equal to the values in life tables for the observed year) (Šter, 2020). Due to different methodologies used, Eurostat data (for comparison with the EU) differ slightly from SURS data.

[2] The decline in life expectancy was greater in Central and Eastern European countries, where it was already much lower before the epidemic than in Western and Northern European countries and where the epidemic erased at least temporarily all the gains from the previous decade (for more, see e.g. OECD and EU, 2022, pp. 88–89).

[3] Sambt et al. (2021) point out that such an approach does not take into account changes in the number and age structure of the population, nor the trend of declining mortality over time. Based on EUROPOP2019 projections of deaths, we estimate that excess mortality was 15.2% in 2020 and 14% in 2021.

[4] Age of the deceased – 2000: 71.8; 2019: 78.1; 2020: 79.2; 2021: 78.3. Premature mortality (the share of deaths under the age of 65 among all deaths in a calendar year) – 2000: 26.7%; 2019: 16.0%; 2020: 13.7%; 2021: 15.0%.

Unmet needs for healthcare 3.10

In 2021, unmet needs for medical examination in Slovenia increased significantly; the main reason for this was again waiting times.[1] In 2021, 4.7% of the population had unmet needs for medical examination. This is significantly more than in 2020 and well above the EU average, the main reason being COVID-19 measures. Since access to most health services was at least partially restricted in 2020[2] and unwell people themselves avoided seeking medical care due to the epidemic, doctor appointments were postponed and waiting times extended to 2021. At the same time, the major shortage of doctors and nurses in 2021 led to a significant tightening of access at the primary level. The gap in unmet needs between the first and fifth income quintiles also widened compared to previous years.

The main reason for unmet needs in Slovenia are long waiting times, while financial reasons predominate in most other EU Member States. This is related to a broad healthcare benefits basket, which in Slovenia is partly covered by compulsory and partly by complementary health insurance, although the access to many services is in practice limited. Unmet needs for dental examination also increased markedly in 2021 and were also higher than the EU average. In 2021, unmet needs for dental examination were reported by 6.1% of the population, which is almost twice as much as in 2020 and the EU average. Again, the main reason was long waiting times for dentists in the public health network.

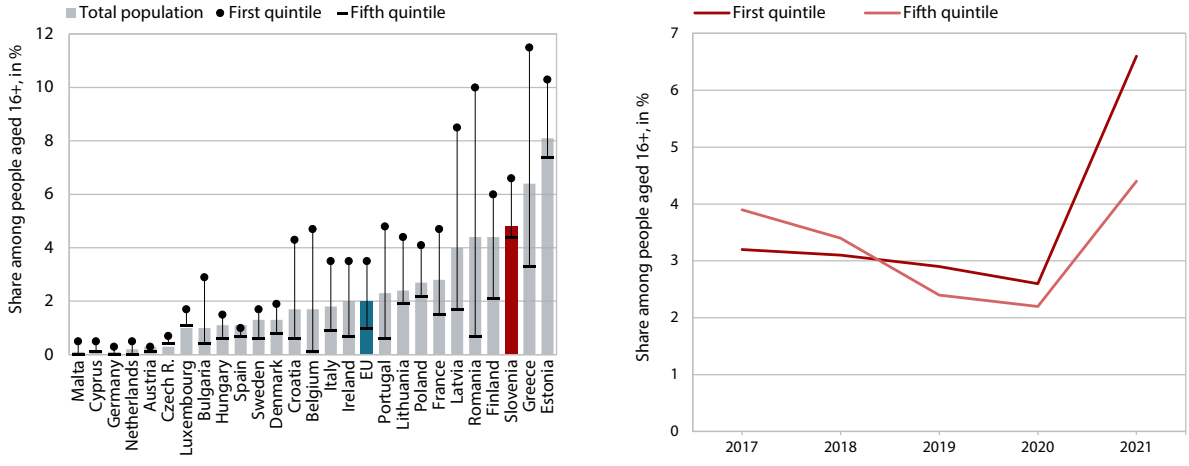
During the epidemic, the share of unmet needs for medical examination was close to the EU average in Slovenia. The survey (Eurofound, 2021, 2022) which was conducted in spring 2021 and spring 2022 showed that 18% of respondents in Slovenia reported having unmet needs for medical examination, compared to the EU average of 17% in 2021 and 18% in 2022. The same result in both years shows that until the spring of 2022, Slovenia and the EU as a whole had not yet managed to clear the healthcare backlog created by the suspension of health services during the epidemic. The highest rates of unmet needs were reported in Latvia, Poland and Lithuania (around 30%), and only the Czech Republic and Denmark had rates below 10% in both years.

Table: Unmet needs for healthcare in the population aged 16 and over, in %

Reasons for unmet needs		Waiting times, financial reasons, geographical distance			Waiting times only		
		2019	2020	2021	2019	2020	2021
For medical examination	Slovenia	2.9	2.7	4.8	2.9	2.6	4.7
	EU	1.7	1.9	2.0	0.7	0.7	0.9
For dental examination	Slovenia	3.7	3.1	6.1	3.4	2.7	5.6
	EU	2.8	3.3	3.1	0.2	0.3	0.4

Sources: Eurostat (2023), EU-SILC 2021 survey data. Note: The EU average is Eurostat's estimate.

Figure: Unmet needs for medical examination (due to waiting times, financial reasons or geographical distance) and the differences by income, comparison of EU Member States for 2021 (left) and Slovenia 2017–2021 (right)



Source: Eurostat (2023). Note: The EU average is Eurostat's estimate.

[1] The main indicator of access to health services under the European Pillar of Social Rights is the survey indicator of unmet needs for medical examination due to financial reasons, geographical distance or waiting times. Part of the problem with this indicator is that the surveys do not cover certain population groups (homeless people, some migrants and people living in institutions). In Slovenia, in the past there was a problem in the translation of the EU-SILC survey question, so the data is only relevant from 2017.

[2] At the primary level, the number of visits, including distance consultations, decreased by 1.7% compared to 2019, after increasing by around 3% annually before the epidemic. An even higher decrease in the number of treatments was observed in specialist ambulatory services (by 20%), in imaging diagnostics (by 15%) and in inpatient treatments (by 15%), which means that many patients did not receive treatment (HIIS, 2021).

Avoidable mortality 3.11

Avoidable mortality,[1] which successfully declined in 2011–2019, increased in 2020 as a result of the epidemic, but less sharply than the EU average. The rate of avoidable mortality consists of (i) preventable mortality that could be avoided through public health and preventive measures and (ii) treatable mortality (avoidable by healthcare). In the period 2011–2019, the decline in avoidable mortality was almost double the EU average (SI: decrease of 64 deaths per 100,000 population; EU: 38 deaths). In 2020, it deteriorated sharply (by 23 deaths), though the decline was less pronounced than the EU average (by 28 deaths). In addition to the deaths from COVID-19 that could have been prevented by timely policy action, the deterioration is also associated with indirect consequences caused by interruptions in preventive and curative healthcare.

Preventable mortality again decreased at a rate similar to the EU average in 2020 and remains above the EU average. In 2020, the number of deaths per 100,000 inhabitants that could have been avoided in Slovenia by public health measures and preventive measures increased by 26 (the same as the EU average). Most preventable deaths were related to a high prevalence of unhealthy lifestyles. The main causes of deaths are lung cancer (smoking) and alcohol-related diseases. The decrease in the death rate before the epidemic can be attributed to the strengthening of primary prevention interventions focusing on smoking, alcohol consumption, nutrition, physical activity, screening programmes and counselling (OECD/EOHSP, 2021a).

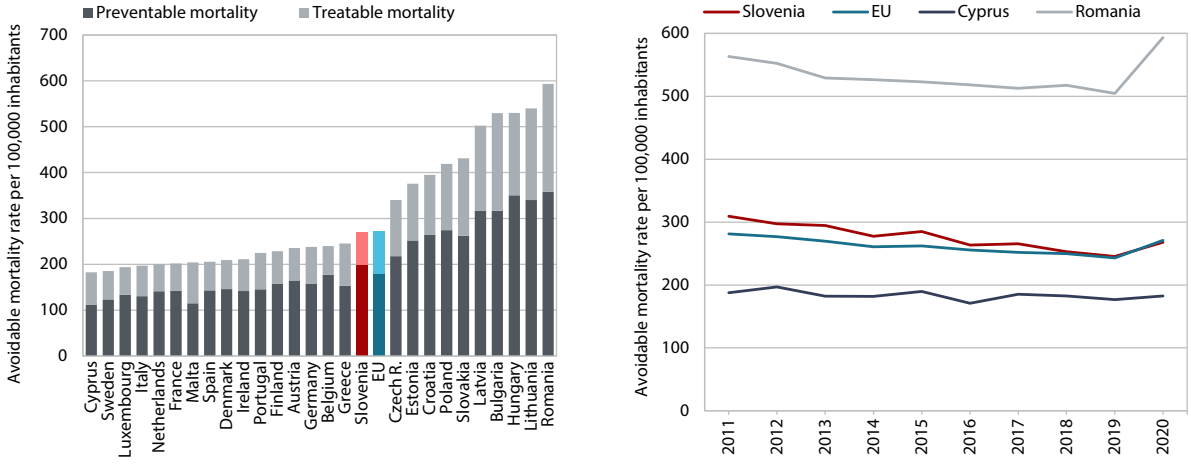
Treatable mortality in Slovenia also decreased in 2020, which indicates relatively effective healthcare from the aspect of treatment. In 2020, 70 people per 100,000 inhabitants died (the number decreased by two persons compared to 2019) in Slovenia from causes that could have been avoided through timely and effective healthcare (including through screening programmes and treatment). On average, treatable mortality in the EU increased by 3 persons in 2022 (to 92 persons per 100,000 inhabitants). The indicator points to effective healthcare in terms of treatment, particularly with regard to the relatively lower investment in health (as a share of GDP) than in countries that reach comparable results (see also Indicator 3.12). The main causes of death were heart disease and colon and rectal cancer, followed by strokes and breast cancer.

Table: Avoidable mortality, age-standardised rates per 100,000 inhabitants

	1. Avoidable mortality (1=2+3)			2. Preventable mortality			3. Treatable mortality		
	2011	2019	2020	2011	2019	2020	2011	2019	2020
Slovenia	309	245	268	209	173	199	101	72	70
EU	281	243	271	178	154	180	103	89	92

Source: Eurostat (2023).

Figure: Avoidable mortality rates in EU Member States, 2020



Source: Eurostat (2023).

[1] In 2019, the methodology for calculating the avoidable mortality indicator was changed. The indicator is used to assess the performance of the healthcare system and consists of two indicators: *preventable mortality* and *treatable (amenable) mortality*. Both indicators have undergone a change in the list of causes of death. The attribution of causes of death to the preventable or treatable mortality category is based on the criteria of whether these causes of death can be largely prevented through better prevention measures or more effective treatment. In addition, all deaths up to the age of 75 are now considered avoidable (previously the limit was 65 years). For both indicators, the data series from 2011 to 2020 is available in accordance with the new methodology.

Health expenditure 3.12

In 2021, the high growth in health expenditure slowed despite the continuation of the epidemic. After a long period of very low growth,[1] health expenditure in Slovenia increased sharply in 2018 and 2019. This was mainly due to rapid growth in employment and wages and additional transfer from the budget to cover the wages of physicians in training and those undergoing specialisation, which were previously financed from the HIIS.[2]Nevertheless, Slovenia entered the epidemic with an underfunded and understaffed health system, leading to staffing and equipment problems and a rapid increase in waiting times and unmet needs for medical examination (Indicator 3.10). Real growth in total health expenditure increased to 6.3% in 2020 before moderating to 2.9% in 2021, according to the preliminary estimate. In 2020 and 2021, the high costs of containment measures were largely covered by the state budget,[3] so that (state and municipal) budgets expenditure as a share of current health expenditure increased from 4.2% in 2019 (EUR 174 million) to 9.1% in 2020 (EUR 404 million) and, according to a preliminary estimate, to 11.2% in 2021 (EUR 533 million); and the share of total current public expenditure in current health expenditure increased from 72.8% to 74.6%.

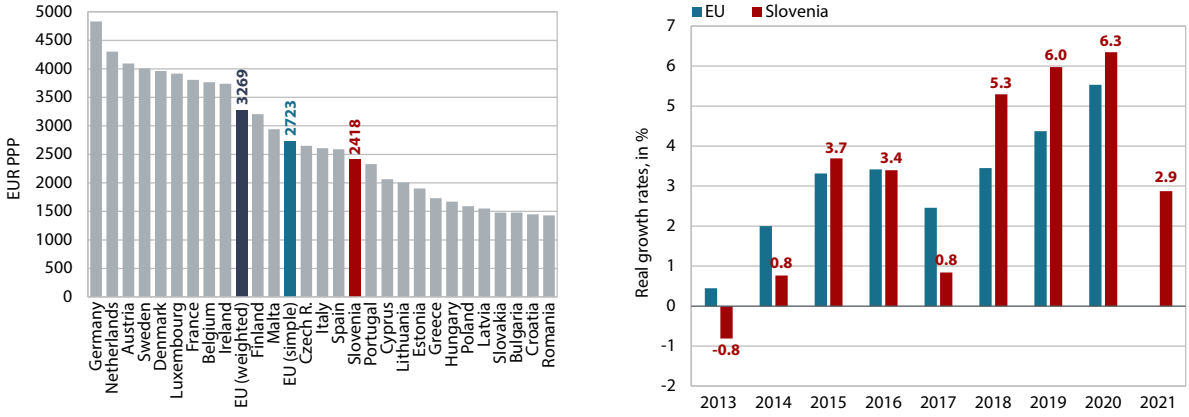
In 2022, the gap between health insurance revenue and expenditure was the widest recorded so far. The HIIS ended 2022 with a deficit (EUR 109.2 million, i.e. 0.2% of GDP), which it covered from its own general fund resources (reserve from previous years). The high difference between the growth in contribution revenue (7.2%) and expenditure (15.1%) was partly covered by budgetary resources (agreement for one year only, no systemic change in funding). According to the initial estimate, the share of HIIS expenditure in GDP increased from 6.74% to 6.99% compared to 2021, while the share of revenue in GDP decreased from 6.97% to 6.80%. The increased amount of expenditure is the result of various government agreements (wage increases, increased prices and expansion of healthcare programmes, COVID-19 intervention legislation, payment to health providers for all health programmes implemented) and other factors (increase in expensive medicines for hospital use, increase in prescription drugs, growth of the wage compensation base and increase in the number of beneficiaries, innovations in medical equipment, etc.) (HIIS, 2023).

Table: Health expenditure[4]

	Health expenditure as a % of GDP				Public health expenditure as a % of GDP				Private health expenditure as a share of current health expenditure, in %			Out-of-pocket expenditure as a share of current health expenditure, in %		
	2015	2019	2020	2021	2015	2019	2020	2021	2015	2020	2021	2015	2020	2021
Slovenia*	8.5	8.5	9.5	9.1	6.1	6.2	6.9	6.8	28.2	26.8	25.4	13.0	12.5	11.8
EU (simple average)	8.2	8.3	9.1	N/A	6.0	6.2	7.0	N/A	27.4	22.9	N/A	22.3	18.3	N/A
EU (weighted average)	10.0	9.9	10.9	N/A	7.8	7.9	8.6	N/A	20.4	18.8	N/A	15.9	14.4	N/A

Sources: For Slovenia SURS (2023h) and OECD (2023b) data; for the calculation of EU average Eurostat (2023). Note: N/A – data not available. * For Slovenia, the figure for 2021 is a preliminary estimate by SURS; ** Data for the EU is a usual arithmetic mean of EU Member States, calculation by IMAD; Eurostat and the EC publish a weighted EU average that mainly reflects data from large countries (Germany, France), so it differs significantly from the simple average.

Figure: Health expenditure per capita in 2020, in PPP (left); real growth rates of health expenditure in 2013–2021 (right)



Sources: Eurostat (2023), OECD (2022e, 2023b). Note: Malta: data refers to 2019. EU (simple average) is the arithmetic average of EU Member States, calculated by IMAD; EU (weighted average) is based on Eurostat figure that mainly reflects the data for large EU Member States.

[1] From 2012 to 2017, health expenditure increased on average by only 1.6% per year in real terms (EU: by 2.6%).
[2] In July 2017, amendments to the Medical Practitioners Act were adopted; according to these, the obligation to finance traineeships and specialisations of doctors from the HIIS was transferred back to the state budget. In 2017–2020, this accounted for additional EUR 20 million per year, amounting to a total of EUR 80 million.
[3] The transfer from the state budget to partially cover epidemic-related costs for health services and reimbursement of wage compensation for absence from work due to isolations amounted to EUR 127 million and covered 42.2% of the total HIIS payments related to COVID-19 for 2022, which amounted to EUR 301 million.
[4] It includes current expenditure according to the methodology of the system of health accounts (OECD, Eurostat, WHO, 2017); investments are not included.

Expenditure on long-term care 3.13

In 2020, the share of public expenditure on long-term care (LTC) increased significantly again, but as a share of GDP it was still far below the EU average. Already in 2019, the share of public expenditure on LTC increased sharply in the structure broken down by financing schemes, mainly due to the adoption of the Personal Assistance Act (ZOA, 2017), which significantly increased public financing for LTC at home.[1] In 2020, public expenditure on LTC continued to increase, partly due to the epidemic (additional staff in nursing homes, wage supplements), and expenditure on personal assistance also continued to grow rapidly. International comparison shows that public expenditure on LTC in 2019 (latest data available) amounted to 1.7% of GDP on average in the EU (SPC and EC, 2021), while in Slovenia it was only 1.1% in 2020 (OECD, 2023b).[2] There are large differences between countries, with the Netherlands, Sweden, Denmark, Belgium, Finland and France having the highest LTC expenditure as a share of GDP in 2019 (between 2% and 4.5% of GDP). In addition to the different levels of economic development, these differences also reflect differences in LTC systems, demographic factors and life patterns, particularly regarding the role of family and informal care (see IMAD, 2021a). At the end of 2021, the LTC Act was adopted in Slovenia to ensure faster development of LTC at home, but the implementation was postponed to 1 January 2024. By that time, the shortcomings of the adopted law should have been remedied and the question of financing clarified.

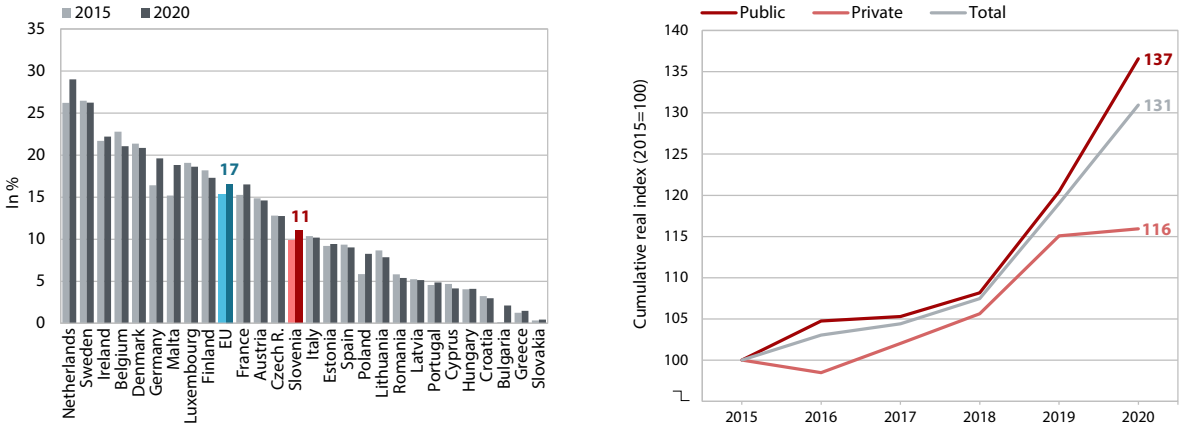
The share of the health component of LTC expenditure in the structure of health expenditure is still significantly below the EU average in Slovenia. Despite the very rapid increase in expenditure on the health component of LTC in 2019 and 2020 (by 30% in real terms), its share in health expenditure is still much lower than the EU average. In five EU Member States, LTC expenditure (health component)[3] already accounts for more than 20% of total health expenditure. The developed EU Member States have increased their public funding for LTC at home, and in most countries expenditure on institutional LTC also increased significantly in 2020.

Table: LTC expenditure by financing schemes and by function

	In EUR million			As a % of GDP			Breakdown, in %			Real growth, in %	Real growth, in %
	2008	2019	2020	2008	2019	2020	2009	2019	2020	2019–2020	2010–2020
Long-term care	349	617	681	0.99	1.27	1.45	100.0	100.0	100.0	10.1	37.6
Public expenditure	269	454	517	0.77	0.94	1.10	77.2	73.7	75.9	13.4	38.8
Private expenditure	80	162	164	0.23	0.33	0.35	22.8	26.3	24.1	0.7	34.2
Health component of LTC	239	421	488	0.79	0.87	1.04	73.3	68.3	71.6	15.4	40.5
Social component of LTC	87	195	193	0.29	0.40	0.41	26.7	31.7	28.4	-1.5	30.8

Sources: SURS (2022), OECD (2023b). Note: The calculation was made using the GDP deflator. For definitions of LTC, healthcare, social care, and public and private expenditure, see Nagode et al. (2014).

Figure: Share of LTC expenditure (health component) in total healthcare expenditure (left); real growth in expenditure on LTC in Slovenia (right)



Source: Eurostat (2023). Note: The calculation was made using the GDP deflator.

[1] Public expenditure on personal assistance has been growing sharply, from EUR 3.8 million in 2018 to EUR 84.4 million in 2020, EUR 127.5 in 2021 and EUR 173.5 million in 2022 (MDDSZ, 2023). According to the international methodology, this expenditure is included in the health component of expenditure on LTC (at home). In 2021, an amendment to the Personal Assistance Act was passed that tightens the conditions for personal assistance providers and also provides for a reassessment of personal assistance beneficiaries.

[2] On average in the OECD, public expenditure on LTC increased in 2020 (by 0.1 p.p. of GDP compared to 2019), as it is expected to have increased in the EU.

[3] Expenditure on the health component of LTC (included in total health expenditure) encompasses not only medical long-term care, but also personal care related to assistance in performing the basic activities of daily living (such as eating, bathing, dressing, getting in and out of a bed, toileting, and incontinence care) and in-kind and cash support (attendance allowance). Expenditure on the health component of LTC is financed by the HIIS, ZPIZ, MDDSZ and municipalities. For more explanations, see Nagode et al. (2014).

Overweight and obesity 3.14

The share of overweight or obese adults in Slovenia increased over the 2014–2019 period and is above the EU average (see IMAD, 2022). According to the EHIS survey (Eurostat, 2023), in most EU Member States, the share of the population that was overweight or obese in 2019 (latest available data) was lower among those with a high level of education and higher among those with a low level of education and lower among women. The proportion of overweight or obese adults in Slovenia and the EU average increased by 1.6 p.p. over the period studied, and the gap by educational attainment narrowed, mainly due to a lower number of overweight or obese men. A high share of overweight or obese people in Slovenia can be associated with poor eating habits[1] and excessive alcohol consumption. In 2020, the average annual alcohol consumption per capita was 9.8 litres in Slovenia, which is in line with the EU average, but 23% of adults reported heavy episodic drinking (EU: 19%) (OECD, 2022e). Overweight and obesity[2] are important risk factors for the development of chronic health conditions and premature mortality. Cardiovascular diseases are the main cause of mortality in Slovenia and in most developed countries. Obesity can, moreover, have not only medical but also socio-economic consequences (social exclusion, lower income, higher unemployment, more working days lost and early retirement).

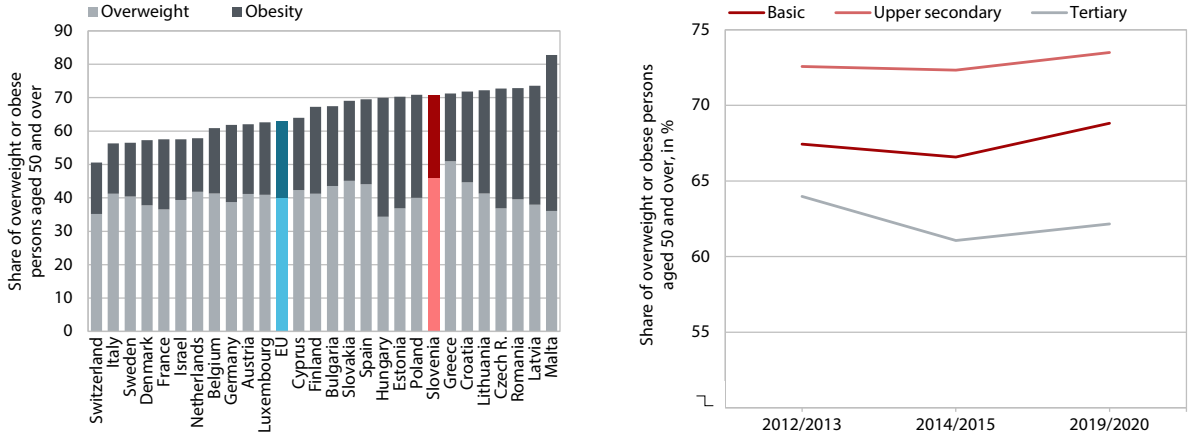
According to the SHARE survey, around 70% of people aged 50 and above in Slovenia were overweight or obese over the three measurement periods between 2013 and 2020, which is significantly above the EU average. The most recent SHARE survey, conducted partly before the epidemic and partly in the summer of 2020, found almost the same proportion of overweight (71%) among those aged 50 and above as the previous two surveys (46% of overweight and 25% of obese people) (Börsch-Supan, 2013, 2017, 2022; Börsch-Supan et al., 2013). Compared to Slovenia, the share of overweight people in the EU-27[3] included in the last SHARE survey was lower, at 63% (of which 40% were overweight and 23% obese). Switzerland had the lowest proportion of overweight or obese people (51%), while Malta had the highest (83%). In Slovenia, the proportion of overweight or obese individuals in all observation periods was highest among those with upper secondary education, while the proportion was lowest among those with a high level of education. The gap by educational attainment has widened since 2013 among those above 50 years of age, due on the one hand to a decline in the share among those with a high level of education and on the other hand to an increase in the share among those with a low level of education.

Table: Overweight and obesity, by sex and educational level, 2014 and 2019

	Overweight and obesity		Overweight, in %						Obesity, in %					
	Total		Total		Women		Men		Total		Women		Men	
	2014	2019	2014	2019	2014	2019	2014	2019	2014	2019	2014	2019	2014	2019
Slovenia	55.0	56.6	36.5	37.3	30.3	30.8	42.7	43.7	18.6	20.3	17.0	18.0	20.3	20.7
EU	49.7	51.3	34.8	35.2	28.4	28.8	41.7	42.1	15.4	16.0	15.3	15.8	15.6	16.3

Source: Eurostat (2023), data according to the EHIS survey.

Figure: Share of overweight or obese people in EU Member States* (aged 50 and over) (left) and in Slovenia by education level, at three measurement points



Source: SHARE 4th wave (Börsch-Supan, 2013), 6th wave (Börsch-Supan, 2017) and 8th wave (Börsch-Supan, 2022); calculations by IER and IMAD. Note: * The EU average includes all EU Member States, excluding Ireland and Portugal; Switzerland and Israel are also included.

[1] In 2019, only 5% of adults consumed at least 5 portions of fruit and vegetables daily compared to 13% in the EU (OECD, 2022e).

[2] Adults with a body mass index (BMI) from 25.0 to 29.9 kg/m^2 are defined as overweight and those with a BMI of 30 kg/m^2 or over as obese. The BMI is a ratio of an individual's weight to the square of his or her height (WHO, 2023a). Although the BMI is a good indicator of the amount of body fat, it can neither determine the distribution of body fat nor differentiate between fat and lean body mass.

[3] In addition to the 25 EU Member States (all except Ireland and Portugal), Switzerland and Israel were also included in the SHARE survey.

At-risk-of-poverty or social exclusion rate 3.15

In 2019–2022, the at-risk-of-poverty or social exclusion (AROPE) rate in Slovenia was among the lowest in the EU,[1] although for some vulnerable groups it was higher than the EU average. According to the EU-SILC 2022 survey, which is based on 2021 income and reflects the impact of the epidemic but not of the crisis caused by rising prices, the AROPE rate increased slightly year-on-year: the at-risk-of-poverty rate[2] and the very low work intensity rate increased slightly (by 0.4 p.p. and 0.2 p.p. respectively), while the severe material and social deprivation rate decreased (by 0.4 p.p.). The AROPE rate fell by 0.4 p.p. compared with 2019. In 2022, 276,000 people were at risk of poverty or social exclusion, about 3,000 fewer than in 2019. In 2019–2021, the AROPE rate for children in Slovenia was the lowest in the EU, while it rose steadily for children of less educated parents, thus remaining above the EU average. The risk for single-person households and the older population, especially women, also remains higher than average, increasing the age-related risk gap.

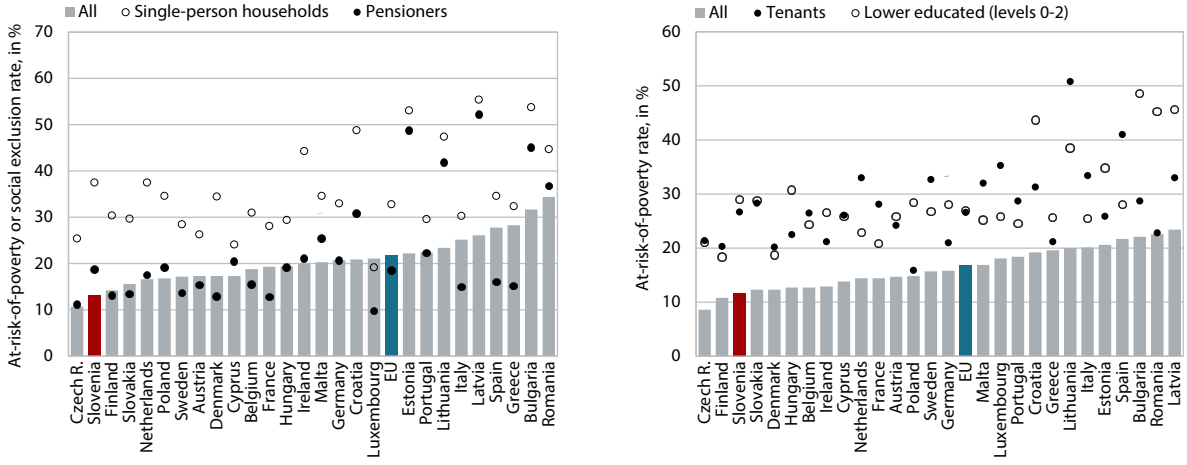
After a gradual decline in 2015–2021, the at-risk-of-poverty rate increased slightly in 2022; the high proportion of poor households and the situation of vulnerable groups in society remain a matter of concern. In 2022 (based on 2021 income), 251,000 people lived below the at-risk-of-poverty threshold,[3] while the risk of long-term poverty[4] decreased significantly (to 100,000 people). Certain population groups remained at higher risk of poverty than the EU average, in particular single person households, pensioners (and people aged 65 and over) and the low-skilled. In 2021, the share of poor households (living below the at-risk-of-poverty threshold) (16.4%) was close to the EU average (18.4%), ranking Slovenia 10th in the EU. In addition to the groups already mentioned, national expert institutions also point to the risk of poverty among people with disabilities, single-parent families, foreign nationals, migrants and tenants. They also point to the intergenerational transmission of poverty, hidden poverty (homeless, Roma, etc.) and insufficient monitoring and targeted action by the state (see Section 3.3).[5]

Table: The at-risk-of-poverty or social exclusion rate, in %

	2015	2016	2017	2018	2019	2020	2021	2022*	ESSP 2030 target**
Slovenia	17.7	16.9	16.6	15.4	13.7	14.3	13.2	13.3 (276,000 persons)	< 270,000 persons
EU	24.0	23.7	22.4	21.7	21.1	21.6	21.7	N/A	A reduction by 15 million persons.

Sources: Eurostat (2023), EU-SILC survey. Notes: * Final EU-SILC 2022 data (based on 2021 income) (Intihar, 2023b). ** A new methodology was introduced in 2021 to monitor the achievement of ESSP objectives, see Appendix 1; N/A – data not available.

Figure: The at-risk-of-poverty or social exclusion rate (left); the at-risk-of poverty rate (right), 2021 (based on 2020 income)*



Sources: Eurostat (2023), EU-SILC 2021 data (based on 2020 income). Note: * Due to the epidemic, national statistical offices and Eurostat have pointed out that comparability of data within and between countries is difficult; the EU average corresponds to Eurostat estimates.

[1] For the new EU-SILC measurement methodology for 2020–2030, see Appendix 1.
[2] The share of persons living in households with an equivalised disposable income below 60% of the median equivalised disposable income of all households, taking into account the so-called adjusted OECD equivalence scale.
[3] In 2022, people living below the at-risk-of-poverty threshold were those whose net disposable income per adult equivalent was below EUR 827 per month or EUR 1,241 per month for a two-member household without children; for more detail, see Intihar (2023b).
[4] Percentage of people living below the at-risk-of-poverty threshold in the current year and in at least two of the previous three years.
[5] The Court of Audit of the Republic of Slovenia (2021c), the Ombudsman (2021), the IRSSV (2021) and other expert analyses (EAPN, 2022; Korpič-Horvat et al., 2022; Kump and Stropnik, 2022) have pointed out that the vulnerable groups have not been adequately addressed. See also IMAD (2021a).

Inequality of income distribution 3.16

The values of income inequality indicators (Gini coefficient[1] and income quintile share ratio[2]) in Slovenia continue to be among the lowest in the EU. The low income inequality in Slovenia is mainly due to low wage inequality, progressive income taxation and, to some extent, redistribution through social transfers. In 2022, the richest 20% of households in Slovenia had an income that exceeded by about 3.3 times that of the poorest 20% (based on 2021 income), which has been within the SDS target for six years in a row.[3] Detailed data available for 2021 (based on 2020 income) show that the income ratio for people aged 65 and over is 3.2, which is noticeably closer to the EU average (4.2) than for those under the age of 65 (5.2). A breakdown of income distribution in Slovenia for 2021 also showed that the gap between the fifth and third income quintiles was 1.78 (EU: 2.17) and was slightly lower than the gap between the third and first income quintiles, which was 1.81 (EU: 2.23) (Eurostat, 2023; calculation by IMAD). The poorest fifth of households accounted for around a tenth of total disposable income, while the wealthiest fifth accounted for a third.

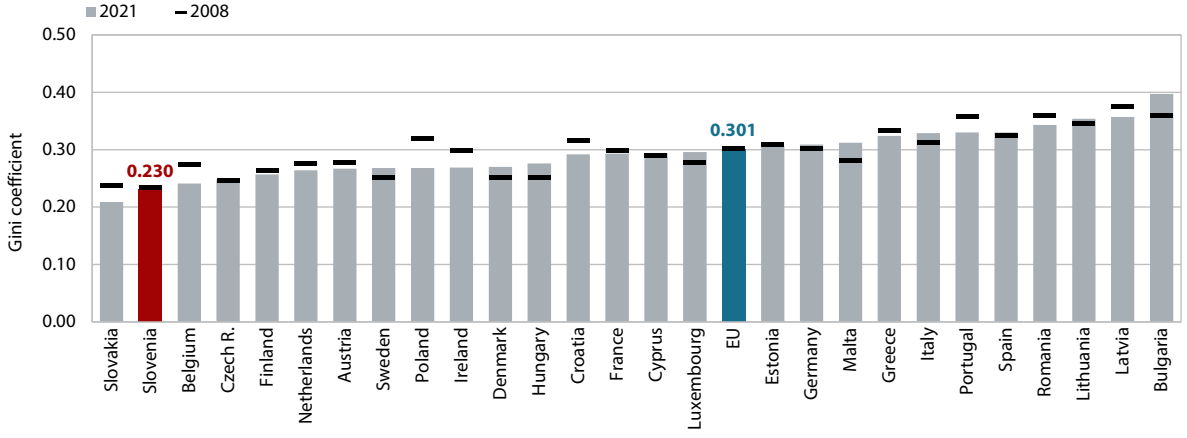
In 2008–2021, inequality of income distribution changed only marginally both in Slovenia and the EU as a whole. The income quintile share ratio (80/20) in Slovenia was slightly lower than that in 2008 according to the latest available data. Inequality of income distribution increased slightly in 2009–2014, mainly due to the beginning of the global financial crisis and the adoption of austerity measures following it. In 2015, amid rapid growth in economic activity and phasing out of austerity measures, it started to decline again, partly due to a higher increase in the real minimum wage growth than in the average wage growth. The first year of the COVID-19 crisis did not have an impact on the rise in inequality in Slovenia (in contrast to the EU average), while in 2022 (based on 2021 income) inequalities increased slightly. Similar movements for Slovenia are also indicated by the most commonly used measure of economic inequality, the Gini coefficient, which stood at 0.231 in 2022 (based on 2021 income).[4]

Table: Inequalities of equivalised disposable income distribution, income quintile share ratio 80/20

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	SDS 2030 target
Slovenia	3.4	3.2	3.4	3.5	3.4	3.6	3.7	3.6	3.6	3.4	3.4	3.4	3.3	3.2	3.3	< 3.5
EU*	N/A	N/A	4.9	5.0	5.0	5.1	5.2	5.2	5.2	5.0	5.1	5.0	4.9	5.0	N/A	

Sources: Eurostat (2023), EU-SILC 2022 (based on 2021 income). Note: N/A – data not available. * Data for the EU is an estimate of the average.

Figure: Gini coefficient for equivalised disposable income



Source: Eurostat (2023). Note: For the EU and Croatia, data from 2010 were taken into account for 2008. For Slovakia, data from 2020 were taken into account for 2021. The EU average is Eurostat's estimate.

[1] The Gini coefficient is a measure of statistical dispersion based on the comparison of cumulative proportions of the population against cumulative proportions of income they receive; it ranges from 0 (perfect equality) to 1 (perfect inequality) (OECD, 2021d).
[2] The income quintile class ratio (80/20) is the ratio between the equivalent disposable incomes of the persons in the highest and the lowest income quintile classes (the ratio between the income of the fifth of the population with the highest income and the fifth of the population with the lowest income) (Intihar, 2020).
[3] The income quintile share ratio (80/20) was similar for both men and women – 3.2 for men and 3.3 for women.
[4] In the wake of the COVID-19 crisis, the largest increase in the Gini coefficient was observed in Portugal, while the largest decrease was in the Netherlands, but there were no major changes in income distribution in the EU Member States generally.

Experience of discrimination 3.17

According to internationally comparable Eurobarometer data, the share of people who experienced discrimination or harassment decreased in 2015–2019 and was within the SDS target. According to the latest available data, 9% of respondents felt discriminated against, which is one of the lowest shares in the EU. Among them, the share of those who felt discriminated against at work was the highest. The most frequently mentioned reasons for discrimination were age, gender, religion or beliefs, and general physical appearance (2%).[1] Discrimination on the grounds of disability, ethnic origin, sexual orientation, social class, political opinion, skin colour or being Roma was experienced by 1% of respondents. Discrimination on the grounds of most of the personal circumstances mentioned above was below the EU average, while discrimination on the grounds of sexual orientation, religion or belief, and Roma origin was as common as the EU average. Experience of discrimination was more frequently mentioned by individuals who considered themselves being part of a minority group.[2] In Slovenia and the EU overall, the share of respondents who felt discriminated against on the basis of age declined the most compared with 2015.

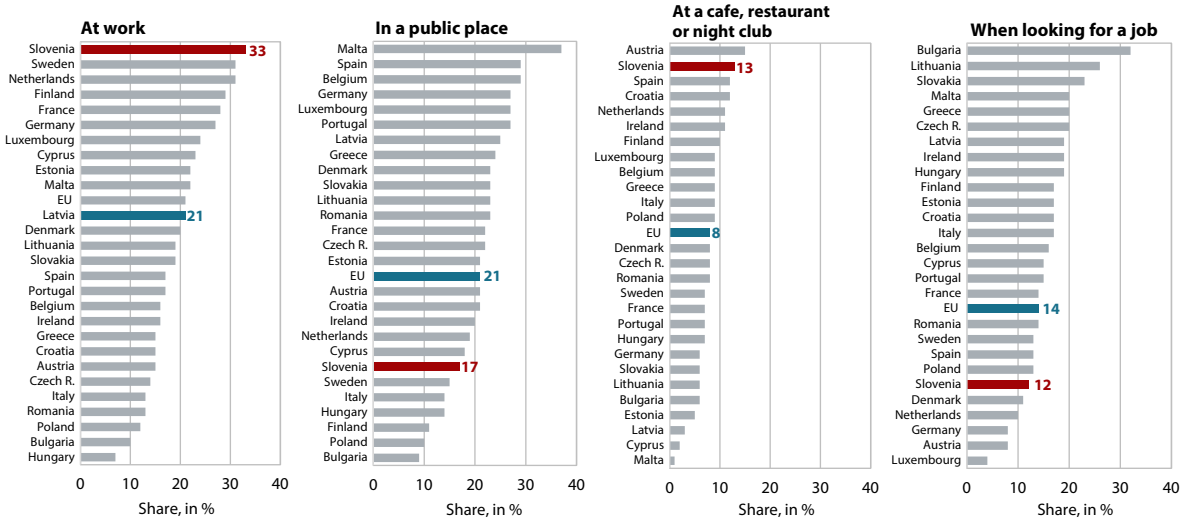
According to research by the Advocate of the Principle of Equality, the share of the population in Slovenia that has experienced discrimination[3] is significantly higher and has increased over the 2017–2020 period. In 2020, 22% of respondents felt discriminated against, which is 5 p.p. more than in 2017 (Advocate of the Principle of Equality, 2017, 2021d). This was also influenced by the epidemic and the measures taken to contain the spread of the virus, which caused many worries and problems for the population.[4] Of those who felt discriminated against, more than half said that they felt discriminated against at work or when looking for a job (52%), followed by discrimination while receiving healthcare (17%), and in the provision of goods and services (15%). The most frequently mentioned reasons for discrimination were age (22%), education (20%), political opinions (16%), disability (14%), gender (12%) and social status (11%). Of those who felt discriminated against, the majority (80%) did not initiate proceedings to protect their rights, mostly because they believed it would not change anything (Advocate of the Principle of Equality, 2021d).

Table: Total share of those who have experienced some form of discrimination or harassment, in %

	2008	2009	2012	2015	2017	2019	SDS 2030 target
Slovenia	15	16	12	13	10	9	< 10
EU	15	16	16	21	16	16	

Source: Eurobarometer (2008, 2009, 2012, 2015, 2018b, 2019a).

Figure: The most frequent time and place cited by persons who felt discriminated against in the EU, 2019



Source: Eurobarometer (2019a). Note: The four most common answers are shown.

[1] In the EU, the most frequently given reasons for discrimination or harassment were gender and age (both 4%).

[2] Of those who felt discriminated against (9%), 50% saw themselves as members of a sexual minority, 40% as members of a religious minority, 32% as members of an ethnic minority, followed by people with disabilities, members of a racial minority and members of the Roma community. Only 6% did not identify themselves as belonging to a minority. On the insufficient involvement of marginalised social groups in research on discrimination, see IMAD (2021a).

[3] Answers to the question "Have you personally been a victim of discrimination in the last 12 months?"

[4] Due to the difficulties faced by the population, in 2020 the Advocate of the Principle of Equality (2021d) carried out more consultations, received and dealt with more complaints against discrimination, and made several recommendations to improve the situation of the most vulnerable population groups.

Median equivalised disposable income 3.18

In terms of the median equivalised disposable income (EDI), Slovenia ranks in the middle of the EU Member States. The strong growth in median EDI until 2009 (based on 2008 income) was followed by a period of decline or low growth (2010–2014, based on income from previous years) as a result of reduced economic activity during the global financial crisis, austerity measures (the ZUJF and ZUPJS) and changes in the allocation of transfers (ZSVarPre), which reduced the equivalised disposable income and thus its median value. After the recovery of economic activity (2014–2019) and gradual abandonment of austerity measures, the median EDI gradually increased, which contributed to the improvement in the living standard of the population. The median EDI in Slovenia increased also during the COVID-19 crisis, when intervention measures played an important role. In 2022 (based on 2021 income), it reached the highest level in real terms in the entire period.

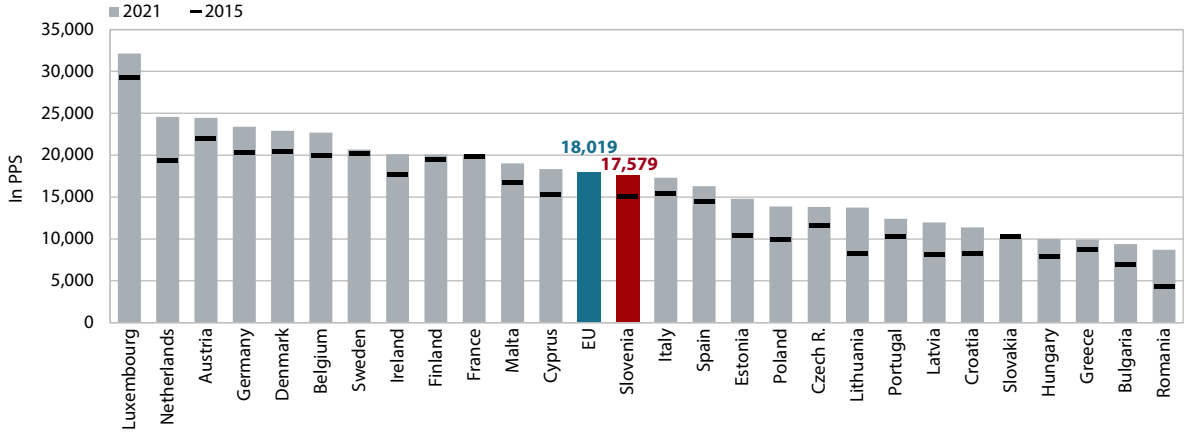
After several years of slow growth in the median EDI for those over 65, growth increased markedly in 2019–2021. The increase in median EDI in euros in 2010–2021 was greater in Slovenia (31.3%) than the EU average (26.5%). As expected, persons in employment in the 18–64 age group recorded the highest EDI in both Slovenia and the EU. The median EDI of the age group of 18 and under is similar to the total EDI, which is mainly a result of policies for protecting the material well-being of children and young people in Slovenia. The median EDI of those aged 65 and over was lowest up to and including 2018, mainly due to the modest increase in the average pension. However, following a significant increase in the average pension, the median EDI for this age group also increased significantly in 2019–2021.[1] Over the period 2010–2021, the increase in median income for those with a high level of education was significantly lower than that for those with lower and upper secondary education. This was influenced by the progressive reduction in public sector wages during the fiscal consolidation period (2013) and by an increase in the share of young people with tertiary education employed in jobs requiring at most upper secondary or lower level education (see Chapter 2). The gap in Slovenia's median EDI in PPS compared to the EU average narrowed in 2018–2021, reaching 2.4% in 2021. The gap was larger for people aged 65 or over (8.8%) and those with tertiary education (11.8%).

Table: Median equivalised disposable income*

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Slovenia	Amount in EUR	11,736	11,999	12,122	11,852	11,909	12,332	12,327	12,713	13,244	14,067	14,774	15,415	16,544
	Real growth (in %)	-1.9	0.1	-1.1	-4.9	-1.4	3.1	0.8	3.3	2.5	4.2	3.3	4.7	5.2
EU	Amount in EUR	14,521	14,652	14,924	14,962	15,101	15,422	15,847	16,281	16,832	17,325	18,296	18,372	N/A
	Real growth (in %)	N/A	-0.9	-1.0	-2.3	-0.4	1.7	2.7	2.5	1.8	1.1	4.1	-0.3	N/A

Sources: Eurostat (2023), EU-SILC 2022 (based on 2021 income); calculations by IMAD. Note: * The median EDI of a given year is based on the income of the year preceding the year of publication, meaning that the growth for the year of publication is deflated by the price index of the previous year; N/A – data not available. Data for the EU is the Eurostat estimate of the average.

Figure: Median equivalised disposable income



Sources: Eurostat (2023), EU-SILC 2021 survey (based on 2020 income). Note: For Slovakia, data from 2020 are used for 2021 (based on 2019 income). Data for the EU average (in PPS) is available from 2018. Data for the EU is the Eurostat estimate of the average.

[1] Growth in the average pension was higher in 2018–2020, also thanks to the intervention measures (PKP1) that introduced a one-off solidarity allowance in 2020, which was only taken into account in the EU-SILC 2021 data (based on 2020 income).

Life satisfaction 3.19

Life satisfaction[1] in Slovenia remains well above the EU average in 2023. According to the latest Eurobarometer (2023b) survey, life satisfaction in Slovenia increased compared to 2022, to 92%, the highest level in recent years, while it decreased on average in the EU (to 83%). In terms of overall life satisfaction, Slovenia thus improved its ranking by one place in 2023 compared to 2022 and now ranks 8th in the EU. Compared to 2019, life satisfaction increased the most in Member States that had the lowest satisfaction rates before the epidemic (Greece, Bulgaria, Italy, Croatia, Portugal and Poland), while it decreased in Slovakia, Cyprus, Belgium, Germany, Romania, Estonia and Austria.

At the beginning of 2023, Slovenia recorded the highest proportion ever of households satisfied with their financial situation, while the proportion of those satisfied with their personal employment situation decreased. Satisfaction with personal financial situation rose to an all-time high (75%) in early 2023, while satisfaction with personal employment situation fell from its peak of 71% last year to 66%. The proportion of those satisfied with the country's economic situation fell to 49% since its peak in mid-2022 (64%). The proportion of those who expect the country's economic situation to improve in the next 12 months also fell, having already declined in 2022. In contrast, the proportion of those who are satisfied with the economic situation in the EU is rising on average in the EU, and expectations for the next 12 months are also shifting upwards.

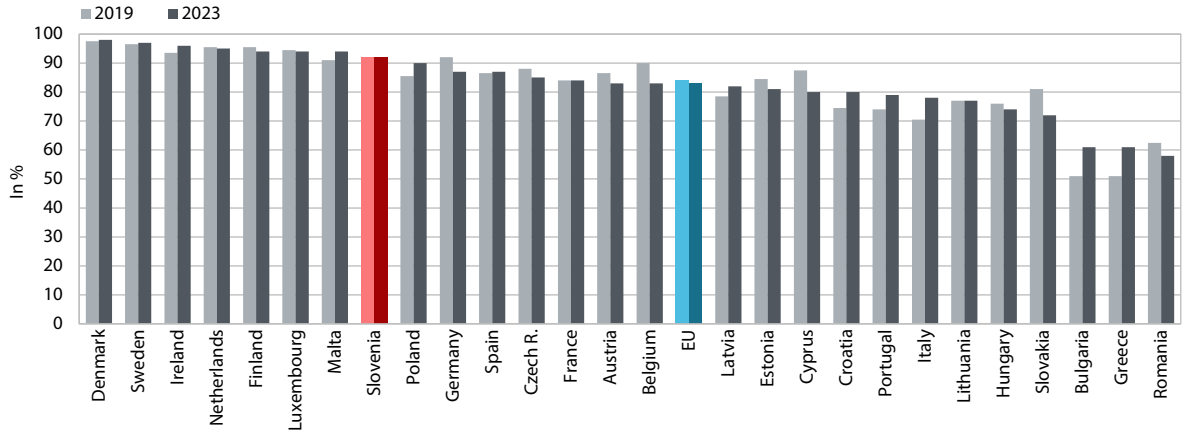
At the beginning of 2023, the main concerns of respondents have changed noticeably compared to 2022, as have the percentages of respondents who indicated a specific concern, at all three levels (personal, national and EU). At the personal level, the order of main concerns remained unchanged, but the percentages of respondents changed compared to 2022. Most respondents (45%) still cited rising inflation and the cost of living as the main concern, although this percentage was lower than in 2022 (54%), followed by health (26%, increase by 2 p.p. compared to 2022). At the national level, priorities changed, as the proportion of respondents citing inflation and the cost of living fell from 59% to 38%, with health again being the main concern (increase from 23% to 50%). The proportion of respondents citing energy supply as the most pressing problem fell from 32% to 25% at the national level and also declined at the EU level, as did the proportion of those citing the international situation and the climate crisis, while the proportion of those citing immigration and the situation in the EU increased (to 19% and 18% respectively).

Table: Life satisfaction, in %

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
SI	88	89	87	86	85	83	85	82	83	84	89	92	91	92	90	91	91	92
EU	82	80	77	78	78	77	77	75	80	76	81	82	83	84	84	85	85	83

Source: Eurobarometer (2023b). Note: The annual data represents the average of two measurements, except for 2004, 2020 and 2021. Only one survey was conducted in 2020, this in July–August. Due to a methodological error, Eurobarometer (2019b) is not taken into account.

Figure: Overall life satisfaction, in %



Source: Eurobarometer (2023b).

[1] The Eurobarometer survey measures life satisfaction with the following question: "All things considered, how satisfied would you say you are with your life these days?" For the purpose of our analysis, the category of satisfied people includes satisfied and very satisfied people.

Social protection expenditure 3.20

Expenditure on social protection[1] increased significantly in Slovenia in 2020 as a result of the epidemic (by 14.3% in nominal terms) and was also higher in the EU on average (by 8.3%). In Slovenia, it amounted to EUR 12 billion but still lagged behind the EU average in terms of GDP and purchasing power standards (PPS) per capita. As a share of GDP, it was on average 4.1 p.p. per year below the EU average in 2008–2020 (4.8 p.p. over the last five years). In PPS per capita, expenditure on social protection reached 72.2% of the EU average in 2020, the highest level since 2011. Since the 2008 crisis, this share (74.5%) has decreased due to austerity measures and the implementation of new social legislation,[2] reaching its lowest level in 2016 (68.0%). In terms of individual expenditure areas, Slovenia's expenditure on social exclusion not elsewhere classified (i.e. expenditure on the poorest) was in line with the EU average in 2008–2020 (and slightly higher in the last two years). The expenditure group that came second closest to the EU average was expenditure on sickness and healthcare (2020: 83.6%; 2008–2020: 79.4%).

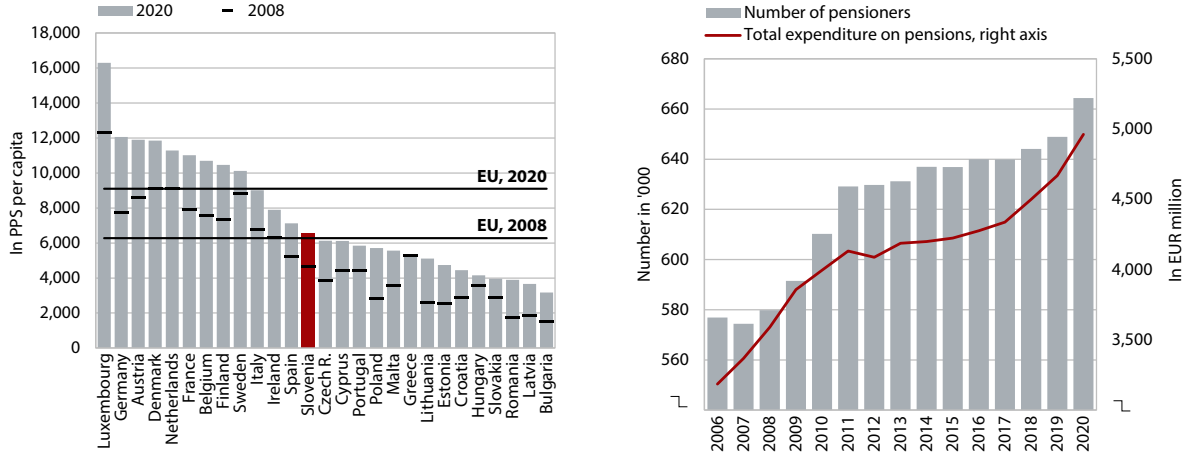
Old-age and sickness/healthcare account for the largest share of social protection expenditure both in Slovenia and in the EU, with unemployment benefit expenditure increasing significantly in 2020. Slovenia spends slightly more on the two largest expenditure categories than the EU average. In 2020, it spent 38.9% (EU: 38.6%) on old age and 33.7% (EU: 29.1%) on sickness/healthcare. Expenditure on the former has increased in recent years due to rising expenditure on pensions.[3] Expenditure on the latter has increased due to higher expenditure on healthcare (see Indicator 3.12) and on sickness benefits (see Indicator 3.6). In 2020, family/children accounted for the third largest category in expenditure structure both in the EU (8.3%) and in Slovenia (7.5%). Due to the intervention measures taken during the epidemic (reimbursement of wage compensation – temporary lay-off, reimbursement of compensation for part-time work, temporary cash benefits, etc. (Černič, 2022)), the highest increase in 2020 was recorded in the unemployment expenditure category, which was almost three times higher than in 2019 in Slovenia (6.3%; 2019: 2.3%) and three-quarters higher in the EU as a whole (7.3%; 2019: 4.5%).

Table: Social protection expenditure, as a % of GDP

	2000	2005	2008	2010	2012	2014	2016	2017	2018	2019	2020
Slovenia	23.2	22.2	20.5	23.8	24.3	23.5	22.9	22.3	21.6	21.7	25.6
EU	N/A	N/A	24.9	27.3	27.4	27.6	27.3	26.9	26.7	26.8	30.3

Source: Eurostat (2023). Note: N/A – data not available.

Figure: Social protection expenditure, in PPS per capita (left); the number of pensioners and pension mass according to the ESSPROS methodology (right)



Source: Eurostat (2023).

[1] According to the ESSPROS methodology, expenditure covers the following categories: sickness/healthcare, disability, old age, survivors, family/children, unemployment, housing, and social exclusion not elsewhere classified (Černič, 2020). See also IMAD (2021b, 2022e).

[2] The ZUPJS (2010) redefined the eligibility criteria for social benefits and family receipts in order to improve their targeting. The ZUJF (2012) limited or froze the payment of certain family receipts and parental compensation.

[3] Pension indexation (since 2016 and especially since 2018, when a high pension indexation was implemented), the guaranteed pension and its increases introduced in 2017, the law adopted in 2020 to gradually equalise the accrual rates for men and women and the payment of solidarity surcharges for pensioners, and the growth in the number of beneficiaries, which has remained moderate since the last reform.

Housing costs and housing deprivation rate 3.21

In 2021, housing costs in Slovenia were not high compared to the EU average, but similarly to the EU as a whole, the housing cost burden was highest for households below the at-risk-of-poverty threshold. After several years of decline, the housing cost overburden rate[1] was 4.1% in 2021, which is less than half the EU average (8.3%), while it was 20.9% among households below the at-risk-of-poverty threshold (EU: 33%). In Slovenia, 20% of all households and 27% of households in the first income quintile lived in poor housing conditions, which contributed to high housing costs.[2] The situation is most severe for pensioners, especially disabled pensioners, workers with a disability and pensioners in one-person households (Kump and Stropnik, 2022), who are less able to afford renovations. Tenants who pay rent at the market price continue to be the most overburdened with housing costs, but their share decreased by 11.4 p.p. in the period from 2016 and 2021 and fell below the EU average (to 17.6%; EU estimate: 21.2%).

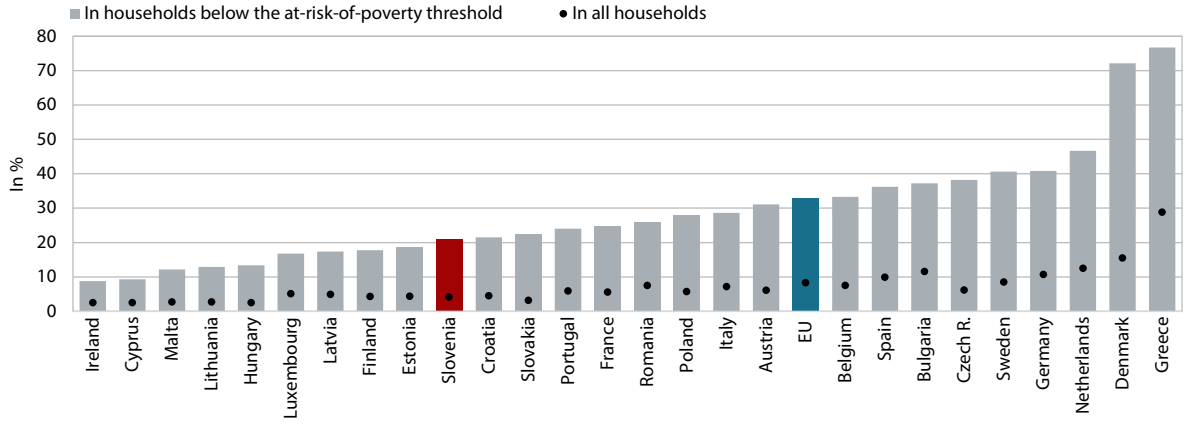
The severe housing deprivation (SHD)[3] rate was low in Slovenia compared to the EU average, while the housing deprivation (HD) rate was high due to poor housing conditions.[4] After several years of decline, the SHD rate fell to an all-time low in 2020 (3.1%; EU: 4.3%), though it was higher for households below the at-risk-of poverty threshold. On the other hand, the housing deprivation rate was among the highest in the EU, as almost one-fifth of people lived in a household in poor housing condition due to the old and poorly maintained housing stock.[5] In 2022, HD rate was the highest in the Pomurska region and Jugovzhodna Slovenija (23%).

Table: Housing deprivation (HD) rate and severe housing deprivation (SHD) rate, in %

	Slovenia								EU							
	2015	2016	2017	2018	2019	2020	2021	2022	2015	2016	2017	2018	2019	2020	2021	2022
HD	26.9	23.8	22.0	22.7	20.6	20.8	20.0	18.0	15.3	15.2	13.1	13.6	12.7	13.9	N/A	N/A
SHD	5.6	4.5	4.4	4.8	3.9	3.1	N/A	N/A	5.3	5.1	4.5	4.3	4.0	4.3	N/A	N/A

Sources: Eurostat (2023), SURS (2023), EU-SILC 2022 (based on 2021 income). Note: The data for the EU are Eurostat estimates; N/A – data not available.

Figure: Housing cost overburden rate, 2021, in %



Sources: Eurostat (2023), EU-SILC 2021 (based on 2020 income). Note: The EU average is Eurostat's estimate. There was a break in the data series for Luxembourg, data for Poland are preliminary, data for Slovenia and France are for 2020.

[1] The share of the population living in a household where total housing costs represent more than 40% of the household's total disposable income. This includes total annual housing costs of a household (interest on a loan or mortgage, rent, insurance, the costs of regular maintenance and repairs, utilities (water, electricity, gas and heating), sewerage removal, waste removal, etc.), net of housing allowances (Intihar, 2022).

[2] Preliminary 2022 EU-SILC data show that in 2022 18% of households lived in a dwelling in poor condition.

[3] The share of people in overcrowded housing who are simultaneously deprived in at least one of the deprivation elements, i.e. (i) poor housing conditions, (ii) lack of a bath or shower in the dwelling, (iii) lack of an indoor flushing toilet for the sole use of the household, and (iv) problems with the dwelling not having enough light (Eurostat, 2023).

[4] The proportion of the population living in poor housing conditions (leaking roof, damp walls/foundation/floors or rot in window frames/floors) (Eurostat, 2023). Data do not include homeless people, while Roma and other low-income groups often living in poor housing conditions are insufficiently included (see IMAD, 2021a).

[5] About 80% of dwellings were built before 1990 and only about 1.4% (10,078 dwellings) between 2016 and 2020, with the highest share in the Osrednjeslovenska region (3,114) and the lowest in the Zasavska region (117).

Material, social and income deprivation 3.22

In 2015–2022, the (severe) material and social deprivation rate[1] decreased rapidly in Slovenia and the EU, while the prevention of absolute poverty[2] remains a challenge for both. Over the last six years, the (severe) material and social deprivation (MSD) rate has fallen more than the EU average and has reached its lowest level, and the severe MSD further decreased by 0.4 p.p. in 2022. Despite the encouraging trends,[3] many people continue to live below the subsistence level (absolute poverty), mitigated by the government through cash and in-kind transfers: in 2022, an average of 81,821 people were eligible for social assistance benefit in cash, 8,895 for emergency social assistance benefit in cash and 23,378 for income support; 150,825 people received in-kind support in the form of food and clothing, mainly women and children under 15 years of age (MDDSZ, 2022d, 2023). Entitlement to social assistance benefit in cash and income support and the amount of support (threshold) depend on the amount set by law every six years based on the minimum basic income (MBI).[4] Each time a new amount of minimum basic income is determined, its value generally moves further away from the minimum cost of living and the at-risk-of-poverty threshold, and in a year of high inflation, the gap was even wider than usual. Adequate social transfers (to ensure the subsistence of those unable to provide for themselves) are important to prevent absolute poverty and preserve human dignity (see Section 3.3).

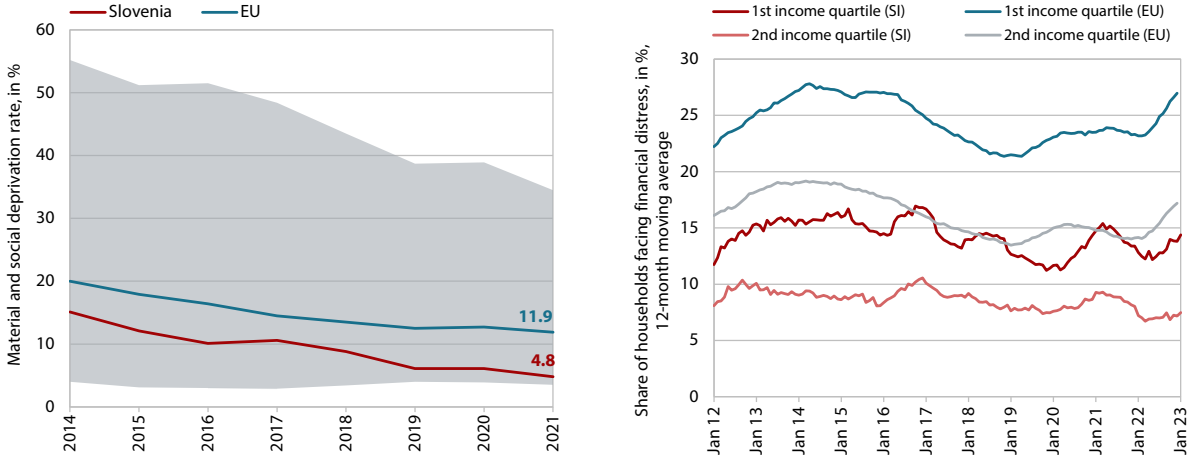
The financial situation of households has deteriorated slightly as a result of the epidemic and rising prices but is still better than the EU average. Despite rising prices, the proportion of households in the lowest income quartile facing financial distress (running into debt or drawing on savings) in 2022 did not return to the level seen at the beginning of 2021, mainly due to government measures,[5] while the situation of poor households in the EU as a whole worsened in 2022 (see Section 3.3). In 2022, households facing financial distress continued to cover their financial needs to a greater extent by drawing on savings, and the proportion of households running into debt increased slightly.

Table: (Severe) material and social deprivation rate (MSD), in %

	Slovenia								EU							
	2015	2016	2017	2018	2019	2020	2021	2022*	2015	2016	2017	2018	2019	2020	2021	2022
MSD	12.1	10.1	10.6	8.8	6.1	6.1	4.8	N/A	17.9	16.4	14.5	13.5	12.8	12.8	11.9	N/A
Severe MSD	4.8	4.1	4.5	3.2	2.2	2.6	1.8	1.4	9.7	9.0	7.9	7.1	6.7	6.8	6.3	N/A

Sources: Eurostat (2023), EU-SILC 2021 (based on 2020 income). Note: * EU-SILC 2022 data (based on 2021 income) (Intihar, 2023b); N/A – data not available.

Figure: MSD rate (left); the financial situation of the poorest households (right) in Slovenia and EU average



Sources: Eurostat (2023), EC (2022k), left: EU-SILC 2021 (based on 2020 income); right: Consumer survey. Note: The EU average is an estimate by Eurostat (left) and the EC (right). The shaded area shows the range between the EU Member States with the lowest and the highest indicator values.

[1] The material and social deprivation rate is the percentage of people facing at least five out of 13 deprivation items and the severe material and social deprivation rate is the percentage of those facing at least seven out of 13 deprivation items according to the EU Statistics on Income and Living Conditions (EU-SILC) (see Appendix 1).

[2] Absolute poverty means the inability to meet the minimum basic requirements of living, determined on the basis of nutritional and other basic needs, which constitute the subsistence minimum. The government mitigates it through curative measures and programmes (social assistance benefit in cash, income support, in-kind benefits, food aid, social assistance services and programmes) (for more information, see ReNPSV22–30, 2022).

[3] In the past Slovenia has ranked around 10th in the EU, and in 2021 it ranked 3rd according to the serious MSD indicator and 5th according to the MSD indicator.

[4] The adequate minimum income is important because, among other things, it serves as the basis for determining eligibility tor social assistance benefit in cash and income support and the amount of support. According to the last calculation, from October 2022, the MBI was set at EUR 488.58 per month (MBI paid until April 2023 stood at EUR 421.89).

[5] Measures during the epidemic, followed by an energy allowance for the poorest households (recipients of social assistance benefit in cash and income support and disabled people), a dearness allowance for families with children, an income supplement for pensioners and a cap on energy prices.

4 A well preserved and healthy natural environment

A low-carbon circular economy

Sustainable and efficient natural resource management

Emission productivity 4.1

After greenhouse gas (GHG) emissions fell to their lowest level in two decades in the first year of the epidemic (2020), they increased slightly in 2021 as economic activity picked up. After declining during the global financial crisis, they rose in 2015–2017 and then declined again to reach their lowest level in 2020. In 2021, they amounted to 16.1 million tonnes of CO_2 equivalent. This was 0.8% more than a year before and 14% less than in 2000. The main reason for the overall increase in 2022 was higher emissions from transportation (by 14%), which is the main source of emissions, but there was also a slight increase in emissions from fuel consumption in industry (by 2%). Emissions from agriculture remained at the same level as a year earlier, while emissions from other groups decreased. Emissions from EU ETS sectors, which fell sharply in the longer term, to about one-third of total emissions, decreased by 7%. Emissions from non-EU ETS sectors increased by 5.5%. According to the quarterly estimates, GHG emissions in 2021 also increased in the EU as a whole. According to the latest available estimates, they increased further in the first half of 2022, both in Slovenia and in the EU as a whole (Eurostat, 2023), which can be explained by the continued growth in economic activity combined with higher liquid fuel consumption.

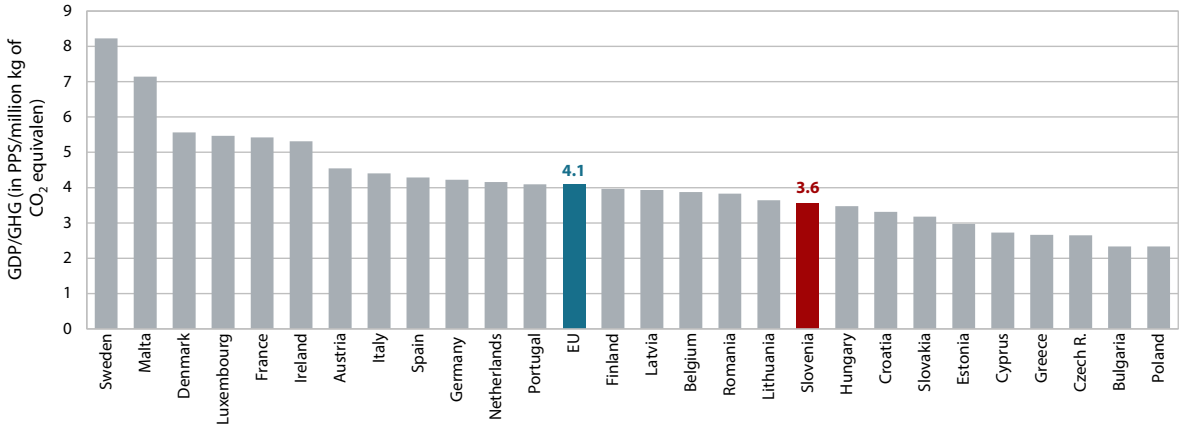
Amid higher economic growth, emission productivity also rose slightly in 2021, but it was below the EU average and the gap is not narrowing. Emission productivity growth, as measured by the ratio of GDP to GHG emissions accelerated again in Slovenia and in the EU, after stalling during the global financial crisis in 2008–2014. It also improved slightly in 2021, when economic growth was higher than growth of GHG emissions. However, the gap behind the EU average has not narrowed significantly over the last few years. In 2020, the last year for which international data are available, around 13% less GDP was generated per unit of GHG emissions than in the EU as a whole, which is a similar gap to that recorded in 2015.

Table: GHG emissions and emission productivity

		2000	2005	2008	2010	2014	2015	2017	2018	2019	2020	2021	Targets
GHG emissions, index, 1990=100 (for total GHG); 2005=100 (for ETS and non-ETS)													**EU 2020 target**
Total	Slovenia	99.8	109.8	115.7	105.3	89.0	90.0	95.1	94.1	91.5	85.0	85.7	-
	EU	92.4	94.5	92.1	87.3	79.7	80.1	81.0	79.4	76.2	68.4	N/A	80.0
ETS	Slovenia		100.0	101.6	93.2	70.1	70.1	75.3	74.4	71.7	69.9	65.2	-
	EU		100.0	95.4	86.5	78.0	78.5	77.0	74.4	67.4	58.9	N/A	
Non-ETS	Slovenia		100.0	108.1	97.9	89.0	90.6	94.8	93.9	91.9	82.9	87.4	< 104.0
	EU		100.0	98.6	96.7	87.2	88.8	91.2	90.0	89.5	84.2	N/A	
Emission productivity, in PPS/million kg of CO_2 equivalent													**SDS 2030 target**
Slovenia		1.6	1.9	2.1	2.2	2.7	2.8	2.9	3.1	3.4	3.6	3.8	average EU
EU		1.8	2.1	2.5	2.6	3.1	3.2	3.4	3.6	3.9	4.1	N/A	
Slovenia /EU, index		90.4	90.6	85.5	83.5	87.8	87.3	86.0	86.7	87.3	87.0	-	

Sources: Eurostat (2023), ARSO (2023b); calculations by IMAD. Data for 2021 is preliminary. Note: A meaningful comparison in PPS with the EU average can only be made for individual years and not for a longer time period; N/A – data not available.

Figure: Emission productivity, 2020



Source: Eurostat (2023); calculations by IMAD.

Energy efficiency 4.2

Primary energy consumption, especially in transport, fell sharply during the COVID-19 epidemic before rising again in 2021. After a period of lower economic activity in 2009–2013, changes in thermal power generation[1] and, in some years, lower demand for heating, the development in recent years has been influenced not only by rising energy consumption in transportation, but also by other factors. These include the annual river level fluctuations and the schedule of regular overhauls at the nuclear power plant.[2] In 2019, energy consumption declined again as the economic growth slowed, followed by an even sharper decline in 2020 when containment measures were in place. Total energy consumption fell by about 6% that year, with consumption in transport falling by 18%. The trends in *energy efficiency* were thus favourable, partly due to the lower activity during the two crises (the global financial crisis in 2009 and the COVID-19 crisis in 2020), and thus Slovenia had fewer problems meeting the Europe 2020 strategy targets for both primary and final energy consumption.[3] As the epidemiological situation improved and containment measures were lifted, energy consumption in transportation increased sharply (by 14%) in 2021, contributing most to the more than 3% increase in total energy consumption. In 2022, there were no significant changes in energy consumption, but the structure changed slightly (increased consumption of liquid fuels and wood and lower consumption of hydropower, coal and gas).

The gap in energy productivity between Slovenia and the EU average narrowed to less than 10%. Growth in energy productivity (defined as the ratio of generated GDP[4] to total energy consumption) only came to a halt in the early years of the global financial crisis and was almost a fifth below the EU average in 2011. Since then, it has mostly grown faster than in the EU, so Slovenia's gap has narrowed, especially in 2021, when GDP growth was higher than in the EU while energy consumption growth was half that of the EU. In 2021, the gap was around 8%, the lowest level since 1995, the first year for which data are available. We assume that energy productivity also improved in 2022, when GDP grew faster than energy consumption.

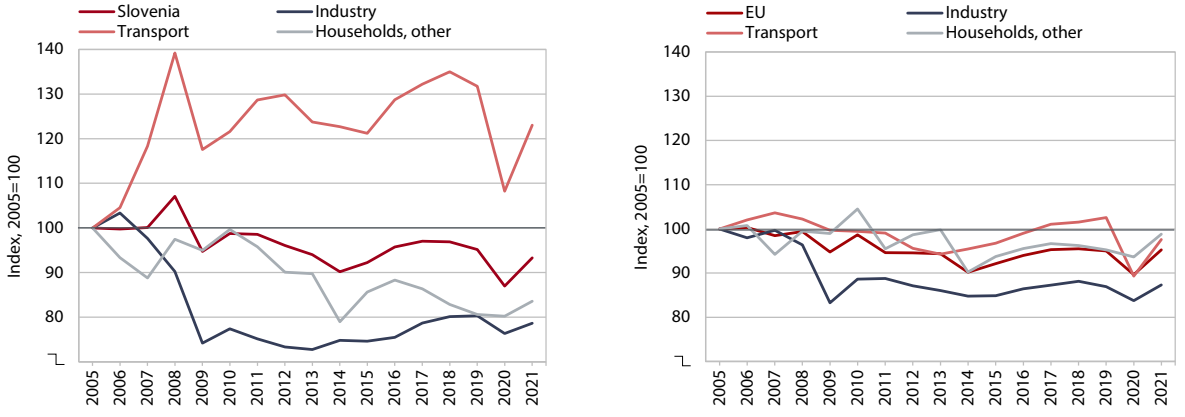
Since 2005, final energy consumption has also decreased at about the same pace as in the EU as a whole. Final energy consumption,[5] which had been declining especially since 2008, has increased again since 2014. In the industry sector, it declined mainly due to the modernisation of aluminium production, but it has increased again in recent years due to economic growth. Household energy consumption has decreased as a result of milder winters, energy renovation of buildings, installation of heat cost allocators and more efficient heating appliances. In the transport sector, it increased due to increased transit following EU enlargements, remained high despite fluctuations[6] and contributed most to the overall increase in energy consumption in 2021.

Table: Primary energy consumption, index, 2005=100

	2000	2005	2008	2010	2014	2015	2016	2017	2018	2019	2020	2021	EU 2020 target
Slovenia	87.2	100.0	106.6	97.0	88.2	87.5	90.3	92.8	91.7	90.0	84.8	87.4	98.3
EU	93.2	100.0	99.4	97.3	88.8	90.3	91.1	92.4	91.9	90.4	82.5	87.4	87.6

Source: Eurostat (2023): EC Energy Efficiency, Reporting Targets; calculations by IMAD.

Figure: Final energy consumption in Slovenia (left) and the EU (right) by sector of consumption



Source: Eurostat (2023); calculations by IMAD.

[1] The Šoštanj thermal power plant was technologically modernised (with TEŠ 6), while the Trbovlje thermal power plant was shut down.
[2] Every third year there is no regular (monthly) overhaul, which means that 10% more nuclear power is generated (and 2 p.p. higher primary consumption).
[3] One of the EU Member States' three environmental targets for 2020 is to improve energy efficiency, i.e. to reduce energy consumption by 20% relative to business-as-usual projections. Most EU Member States thus had to reduce their energy consumption by 2020.
[4] For comparisons over time, we use GDP at fixed prices, while for comparisons between countries in individual years, we use GDP in purchasing power standards.
[5] Final energy consumption means primary energy consumption excluding deliveries to the energy transformation sector and the energy industry itself and excluding losses.
[6] See also Indicator 4.5. In 2020, energy consumption in road transport contributed 37% to final energy consumption in Slovenia compared to 28% in the EU.

Share of renewable energy sources 4.3

The increase in the share of renewable energy sources (RES) in final energy consumption has been modest since 2005 and Slovenia is one of the few EU Member States that still had to buy their shares to comply in 2021. The share of RES consumption increased sharply during the global financial crisis in 2009, when total final energy consumption fell sharply while RES consumption remained almost unchanged, which was also the case in 2020 during the epidemic. In both years, it increased by more than 2 p.p. Between the two crises, RES consumption for heating and the use of hydropower fluctuated but did not increase significantly. Between 2005 and 2021, total RES consumption in Slovenia increased by 18%, while in the EU as a whole it more than doubled. Despite the increase, Slovenia did not reach the RES target (25%)[1] in 2021 and, as in the previous year, bought the remaining share from the Czech Republic. Besides Slovenia, only three other countries (Luxembourg, Malta and Belgium) had to buy their shares in 2021, but they have made much greater efforts to introduce RES since 2005, so that the consumption of RES in these countries has increased several fold. Due to the very negative dynamics, Slovenia is still far from reaching the targets for the coming years.[2] We estimate that the share of RES did not change significantly in 2022 as hydropower consumption declined.

Slovenia has a high share of traditional and a low share of other renewable sources in total RES consumption. *Traditional RES* (wood and hydropower) still account for above 80% of total RES consumption in Slovenia, compared with below 60% in the EU overall. The extensive use of wood for heating is generally desirable, but if not properly used, it can also be unfavourable from the aspect of particle pollution. The share of *other RES* (wind, solar and geothermal energy, biofuels, heat pumps, and biogas), however, is among the lowest in the EU. The gap is the widest in the use of wind farms: their share in Slovenia is 0.04% compared to the EU average of 15.9%.

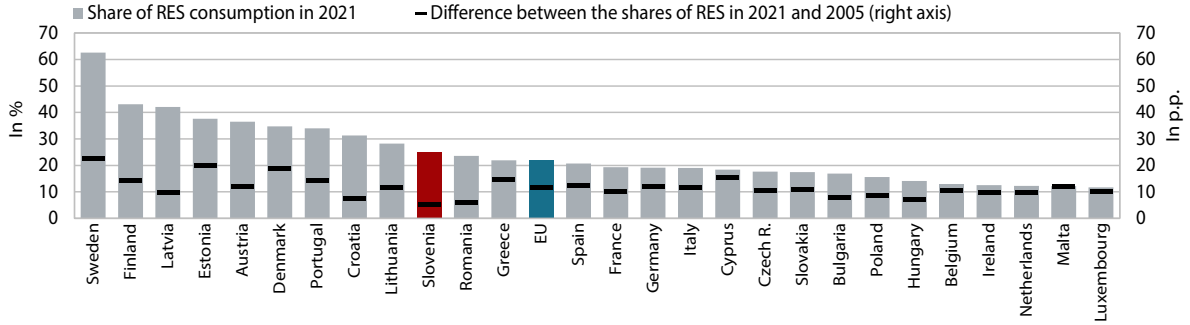
Support schemes for electricity generation from RES[3] were cut in 2022, mainly due to high market prices for electricity and lower electricity generation from hydropower. Total support amounted to around EUR 73 million, down 30% year-on-year. Support for solar power plants accounted for 73%, support for biomass power plants for 12%, support for biogas plants for 7% and support for all other power plants for 7% of all support.[4] The amount of support per unit of electricity generated by solar power plants was still more than twice as high as for other renewable sources.

Table: Share of RES consumption in gross final energy consumption, in %

		2005	2008	2010	2015	2016	2017	2018	2019	2020	2021	EU 2020 target	SDS 2030 target
RES, total	Slovenia*	19.8	18.7	21.1	22.9	22.0	21.7	21.4	22.0	24.1	24.6	25.0	27.0
	EU	10.2	12.6	14.4	17.8	18.0	18.4	19.1	19.9	22.0	21.8	20.0	
In electricity	Slovenia	28.7	30.0	32.2	32.7	32.1	32.4	32.3	32.6	35.1	35.0		
	EU	16.4	18.5	21.3	29.7	30.2	31.1	32.1	34.1	37.4	37.5		
In transport	Slovenia	0.8	1.8	3.1	2.2	1.6	2.6	5.5	8.0	10.9	10.6	10.0	
	EU	1.8	4.1	5.5	6.8	7.2	7.5	8.3	8.8	10.3	9.1	10.0	
In heating	Slovenia	26.4	27.5	29.5	36.2	35.6	34.6	32.3	32.1	32.1	35.2		
	EU	12.4	15.3	17.0	20.3	20.4	20.8	21.6	22.4	23.0	22.9		

Source: Eurostat (2023). Note: * For 2020 and 2021, the share purchased (from the Czech Republic) in order to meet the target is not taken into account.

Figure: Share of RES consumption* in 2021 and increase in RES consumption over the period 2005–2021



Source: Eurostat (2023); calculations by IMAD. Note: * In the calculation, the quantities bought from other countries are added and the quantities sold to other countries are subtracted.

[1] Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC (2009).

[2] Individual national RES targets for 2030 have yet to be determined. For Slovenia, the SDS took into account the target that at the time of the SDS adoption applied to the entire EU. Since then the target for the EU has been raised from 27% to 32%, and with the "fit for 55" package and RePowerEU, an increase to at least 45% has been proposed.

[3] The support scheme is an instrument of government aid, which, through higher purchase prices, enables investment in environmentally friendly sources of electricity production. The support scheme includes several thousand production facilities, to which the support is paid by Borzen's Centre for RES/CHP Support.

[4] IMAD's estimate on the basis of Borzen's nine-month and annual reports.

Modal split of transport 4.4

***Freight traffic* in Slovenia is very heavy due to the country's transit location, but since a lot of freight is also transported by rail, Slovenia ranks in the bottom third of EU Member States in terms of road transport share.** Over a longer period, the *share* of road transport declined slightly, to less than two-thirds, while it increased slightly in the EU as a whole, to more than three-quarters.[1] In 2020 alone, the containment measures led to a decline in freight transport volumes of several percent compared to the previous year, which was significantly higher than the EU average, with the decline being more pronounced in rail transport than in road transport. In 2005–2020, the *volume* of road freight transport increased by one-quarter and that of rail transport by almost 50%, while in the EU as a whole road freight transport increased by 10% and rail freight transport decreased by a few percent. The volume of traffic performed by Slovenia's main railway company has increased more in exports of goods and less in imports and transit traffic during this period. Road freight transport increased in Slovenia particularly due to the rising transit traffic – more than three-quarters of transport in Slovenia is thus already accounted for by foreign hauliers due to the country's small size and transit location. The volume of total freight transport per inhabitant is relatively high in Slovenia (29% higher than the EU average in 2020, being higher only in six other EU Member States). Within that, transport by road per inhabitant is almost one-tenth higher and transport by rail 2.7 times higher than the EU average. With the modernisation of the Divača–Koper railway line and some other sections, also planned with the help of funds from the Recovery and Resilience Plan, railway transport will strengthen further, as it is to a large extent linked to the trans-shipment of goods in the Port of Koper. We estimate that the share of road freight transport increased markedly in 2021,[2] since rail transport decreased more significantly during the epidemic and then recovered more slowly than road transport. In 2022, the shares probably did not change much given the weak growth in volumes of both transport modes.

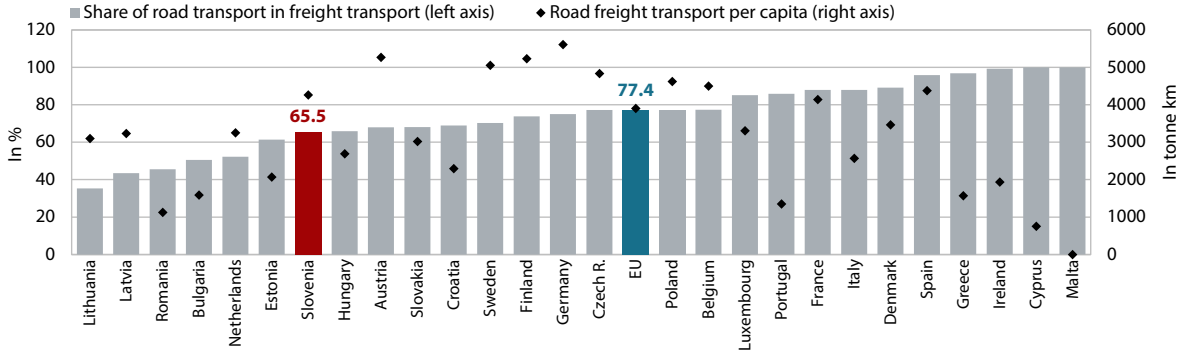
Transport by passenger car is the predominant mode of *passenger transport* in all EU Member States, but in Slovenia its share is among the highest. This can in part be attributed to the diversity of its landscape and its dispersed settlements,[3] which – in spite of subsidies – limit a greater extension of the public passenger transport network and its profitability. More people have difficulty in accessing public transport than in the EU overall (in 2012, one-quarter in Slovenia against one-fifth on average in the EU). With such a passenger transport structure (where public transport is used relatively little in comparison with transport by car), the share of transportation expenditure in total household expenditure is also higher than in the EU (SI: 18%; EU: 12%). In 2020, Slovenia faced major restrictions on public passenger transport due to the epidemic and, while car travel was also limited owing to the ban on travel between municipalities and quarantines, the already low share of public passenger transport in total transport declined further. For 2021 and 2022, we estimate that the share increased slightly again as traffic has normalised.

Table: Shares of road transport in freight transport and car transport in passenger transport,* in %

		2005	2008	2010	2013	2014	2015	2016	2017	2018	2019	2020
Share of road transport i n total freight transport	Slovenia	68.9	70.3	68.2	65.2	64.0	65.0	66.1	64.5	64.7	64.5	65.5
	EU	74.4	74.3	74.6	73.9	73.9	74.2	74.6	75.4	75.6	76.3	77.4
Share of car transport in passenger transport	Slovenia	85.6	86.4	86.8	86.3	86.3	86.1	86.3	86.5	86.4	86.6	91.3
	EU	82.6	82.8	83.1	82	82.4	82.4	82.5	82.7	82.7	82.5	87.2

Source: Eurostat (2023). Note: * Freight transport comprises transport by road (lorries), rail and inland waterways (in tonne km); passenger transport includes transport by car, bus and train (in passenger km).

Figure: Road freight transport, 2020



Source: Eurostat (2023).

[1] Road transport performance is calculated according to the territoriality principle and is therefore comparable to rail and inland waterway transport.
[2] The estimate also takes into account internal DARS data on kilometres travelled by hauliers on Slovenian motorways.
[3] Slovenia has a relatively low share of the population living in cities (19% in 2021; EU: 39%) and a large share of the population living in rural areas (45%; EU: 26%) (Eurostat, 2023).

Resource productivity 4.5

Resource productivity has fluctuated significantly over the years, especially in relation to changes in the construction industry, while the gap with the EU average has not narrowed much in the last decade. Resource productivity, expressed as the ratio of GDP to material consumption, increased the most in 2007–2012 amid a decline in construction activity. The decline in construction activity was related to the global financial crisis and the completion of the motorway network (most of which was built by 2009). The consumption of non-metallic minerals,[1] which had accounted for more than two-thirds of total material consumption, therefore dropped significantly. The decline in total material consumption after 2011 was, in addition to lower consumption of non-metallic minerals, also significantly influenced by changes in thermal power generation (lower coal consumption). In 2019, when growth in construction activity again slowed significantly, the consumption of non-metallic minerals fell by almost 15%, which led to a significant improvement in resource productivity. In 2020, the COVID-19 measures mainly led to a significant reduction in the use of liquid fuels, while total material use declined less than GDP, so that resource productivity again deteriorated slightly. In 2021, consumption of non-metallic minerals again increased sharply (by 21%), while the consumption of sand and gravel reached its highest level since 2010. The growth in total material consumption almost matched the high growth in GDP, so that resource productivity remained roughly unchanged. As material consumption in the EU grew faster than GDP, Slovenia's gap in resource productivity with the EU average narrowed slightly. We estimate that resource productivity did not change significantly in 2022, despite slightly higher consumption of liquid fuels, wood and non-metallic minerals.

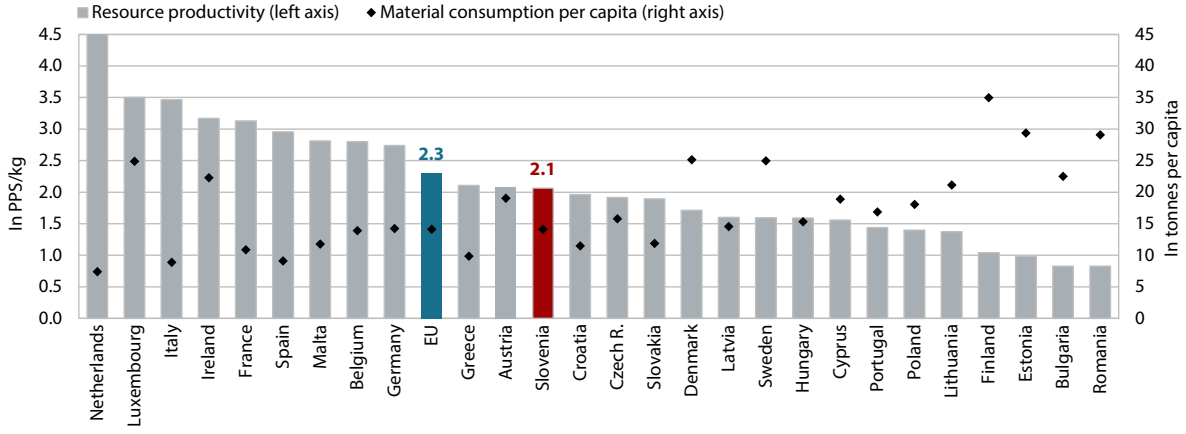
Slovenia's self-sufficiency in materials is slightly above the EU average. Slovenia is well supplied with certain resources. In the breakdown of domestic extracted resources, more than half is sand, gravel, limestone and gypsum. Other important domestic resources are agricultural products, lignite and wood. *Net imports* account for around 12% of total material consumption. In 2021, the bulk of net imports were of petroleum products, gas, iron ore, non-ferrous metals and agricultural products. Since the ice glaze damage in 2014, only *net exports* of wood, particularly sawlogs and veneer logs, have been relatively high, but these declined significantly in 2020 and 2021 and reached levels comparable to those before the ice glaze. High net exports of raw materials otherwise decrease domestic material consumption in the calculation, but from the point of view of efficient use of domestic resources, they represent untapped potential for creating higher value added in the domestic manufacturing sector.[2]

Table: Resource productivity, in PPS/kg

	2000	2005	2008	2010	2014	2015	2016	2017	2018	2019	2020	2021	SDS 2030 target
Slovenia	0.87	1.06	1.11	1.31	1.69	1.71	1.84	1.91	1.84	2.05	2.04	2.06	3.5
EU	1.19	1.34	1.49	1.74	1.95	2.02	2.08	2.10	2.14	2.21	2.21	2.30	
Slovenia/EU, index	72.9	78.6	73.9	75.6	86.4	84.9	88.5	91.0	85.9	92.8	92.3	89.9	

Sources: Eurostat (2023), SURS (2023h); calculations by IMAD. Note: A meaningful comparison in PPS between countries or with the EU average can only be made for individual years and not over a longer time period.

Figure: Resource productivity and material consumption per capita, 2021



Source: Eurostat (2023).

[1] Among non-metallic minerals, sand and gravel accounted for 46%, one of the highest shares in the EU. A close relationship between the consumption of non-metallic minerals and construction activity is also corroborated by the analysis of the Geological Survey of Slovenia made on data for 2014, when three-quarters of non-metallic minerals were used as raw materials in construction, a further 17% as raw materials for the building materials sector and only 7% in manufacturing.

[2] See also Indicator 4.11.

Waste 4.6

After decreasing in 2020 during the COVID-19 crisis, waste generation increased again in 2021 as economic activity picked up. In 2021, 9.4 million tonnes of waste were generated, or 1.5 tonnes per capita. This was 23% more than in 2020 and twice as much as in 2012, when the amount of waste reached its lowest level since 2000.[1] The increase was relatively higher for waste from *manufacturing and services*, where most waste is generated. Mineral waste and construction waste make up the majority of waste due to their high specific weight and accounted for more than 70% of all waste generated in 2021. The amount of *municipal waste*, which accounted for 12% of all waste and the per capita generation of which is below the EU average, rose by 6% to 518 kg per capita, the largest increase in a decade. The total amount of municipal waste increased by 11%, while mixed municipal waste decreased slightly. The amount of hazardous waste, which has increased in the long term, increased by 1%, with its share in total waste generation falling to 1.5%.

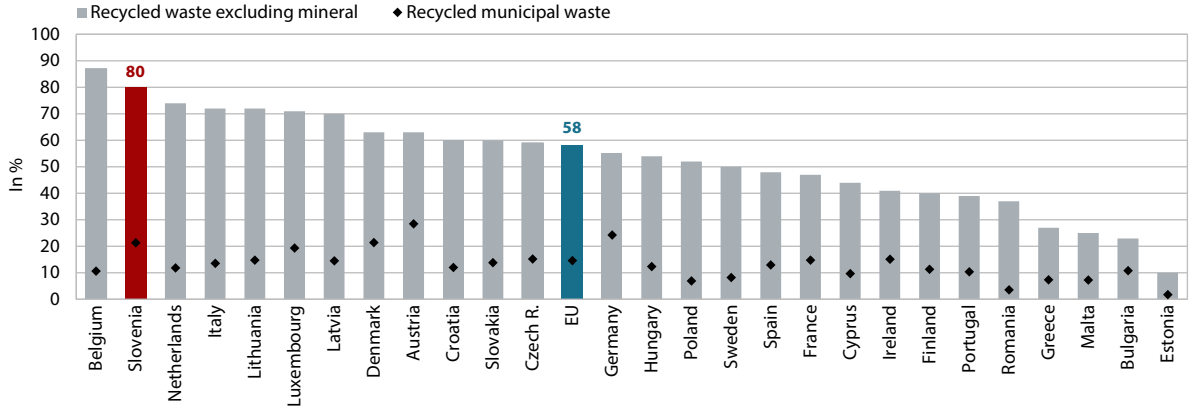
As the amount of waste generated in 2021 increased, so did the amount of waste treated, but to a proportionally lesser extent. In 2021, 8.1 million tonnes of waste were treated in final processing, which was 20% more than in the previous year. Due to the relatively large increase in mineral waste, backfilling was the most favoured option in the waste management hierarchy (57%), while the shares of recycling (41%) and incineration for energy recovery (2%) decreased. The recycling rate of total waste excluding mineral waste has increased since 2010 and is quite high by international comparison. The same applies to the recycling of municipal waste. The amount of waste landfilled, which is the least preferred option, continues to decline. Landfilling of municipal waste, around three-quarters of which was already collected separately, also decreased by 13%.

Table: Waste generation and share of recycled waste

	2000	2010	2012	2014	2015	2016	2017	2018	2019	2020	2021
Total waste generation, excluding mineral waste, kg per capita											
Slovenia*	N/A	2,018	1,706	1,604	1,684	1,481	1,553	1,563	1,506	1,430	1,541
EU	N/A	1,720	1,719	1,735	N/A	1,763	N/A	1,820	N/A	1,745	N/A
Of which: municipal waste generation, kg per capita											
Slovenia*	513	422	362	433	451	465	478	495	509	489	518
EU	513	503	488	478	480	493	499	500	504	517	530
Waste recycled, total, excluding mineral waste, share in total waste treated, %											
Slovenia	N/A	52	74	75	78	80	84	82	85	80	86*
EU	N/A	53	53	54	N/A	55	N/A	56	N/A	58	N/A
Municipal waste recycled, share of total municipal waste generated, %											
Slovenia	6	22	42	36	54	56	58	59	59	59	60
EU	27	38	41	43	45	46	46	46	47	49	50

Sources: Eurostat (2023), * SURS (2023h). Notes: Recycled waste is waste sent for treatment, excluding energy recovery and backfilling. The exclusion of mineral waste improves international comparability across countries, as mineral waste usually accounts for the vast majority of waste due to its high specific weight and has a decisive impact on the total amount; N/A – data not available.

Figure: Share of recycled total waste (excluding mineral) and municipal waste treated, 2020



Source: Eurostat (2023); calculations by IMAD. Note: Data for Estonia is for 2016. Data for Bulgaria, Ireland, Greece and Sweden is for 2018.

[1] In 2012, the reported amount of total waste decreased by one-quarter due to a reduction in construction waste and methodological changes (some waste categories were reclassified as by-products).

Environmental taxes 4.7

In 2021, environmental taxes increased by 5% compared to 2020 but were still a tenth lower than in 2019. After rising for several years, environmental tax revenues[1] first fell in 2018 (by 1.2%) and then again in 2020 (by 14.4%) due to lower economic activity during the COVID-19 epidemic and the reduction in excise duties on petrol and diesel, before rising again in 2021. Growth was driven by higher revenues from energy taxes (by 7.8%), which account for the largest share in the structure of environmental taxes. Despite the increase, total environmental tax revenue in 2022 did not reach the 2019 level; only taxes on pollution were slightly higher, but they only account for a small share of total revenues from environmental taxes. According to the preliminary state budget data, revenue from excise duties on energy in 2022 was again below the 2019 level. These excise duties were reduced as part of the measures to mitigate the effects of rising energy prices. At the same time, the payment of the environmental tax on air pollution from CO_2 emissions was also waived in certain months. Such trends are not encouraging from the point of view of the green transition and the achievement of long-term climate goals, since environmental taxes, as important price signals, can make a significant contribution to the achievement of climate goals, while their reduction and the introduction of various exemptions such as tax relief and subsidies make the achievement of these goals much more difficult.

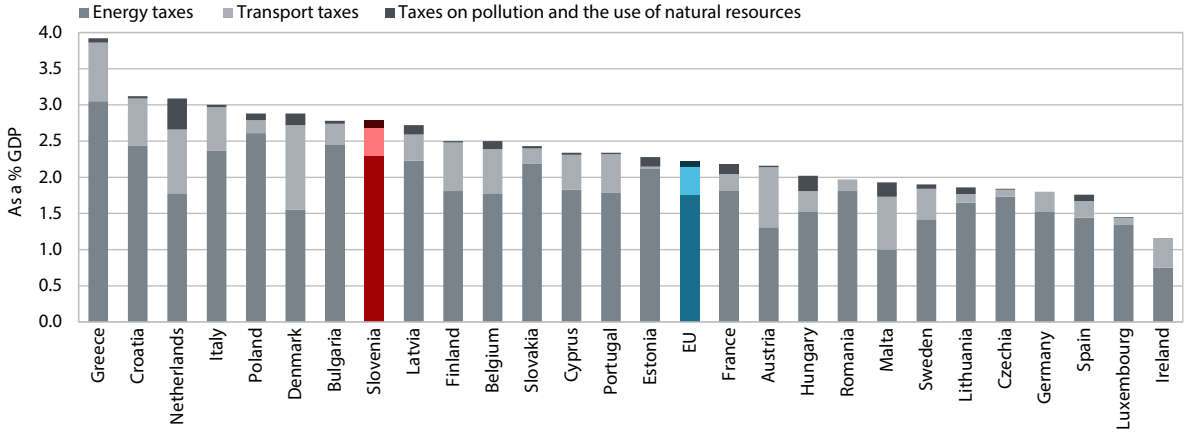
Slovenia is still in the top third of EU Member States in terms of the burden of environmental taxes as a share of GDP, in spite of several years of decline. In 2021, Slovenia's environmental tax revenues as a share of GDP were 0.54 p.p. higher than the EU average. The gap halved compared to 2013, when it was widest (1.45 p.p.). The high share in Slovenia is mainly due to high revenues from energy taxes, which is related not only to the extensive use of fuels for road transport and Slovenia's transit location, but also to dispersed settlement and the poorly developed public transport infrastructure.

Table: Revenue from environmental taxes

	2000	2005	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
In nominal terms, in EUR million EUR															
Slovenia	632	920	1,261	1,312	1,277	1,389	1,428	1,453	1,509	1,569	1,578	1,560	1,615	1,383	1,453
As a share of GDP, in %															
Slovenia	2.89	3.16	3.48	3.61	3.45	3.83	3.92	3.86	3.88	3.88	3.67	3.40	3.33	2.94	2.78
EU	2.57	2.54	2.36	2.36	2.40	2.44	2.47	2.47	2.45	2.47	2.42	2.40	2.35	2.23	2.24
As a share of total revenue from taxes and social contributions, in %															
Slovenia	7.63	8.02	9.25	9.42	9.11	10.02	10.36	10.23	10.26	10.23	9.77	9.01	8.83	7.78	7.22
EU	6.24	6.38	6.01	6.05	6.09	6.04	6.02	6.02	5.99	6.04	5.90	5.83	5.74	5.42	5.38

Source: Eurostat (2023).

Figure: Revenue from environmental taxes, 2021



Source: Eurostat (2023).

[1] Environmental taxes include energy taxes, transport taxes, and taxes on pollution and the use of natural resources.

Ecological footprint 4.8

Slovenia's ecological footprint, a composite indicator of environmental development, increased in 2015–2018 and was above the EU average, indicating a significant and increasing environmental burden.[1] The ecological footprint is expressed in global hectares (gha), a standardised unit of biologically productive area. The biologically productive area is the fertile area needed to satisfy human needs for food and to sustain their lifestyles, including to absorb or dispose of the wastes generated in the process. The largest component of the ecological footprint is (i) the carbon footprint, resulting from carbon dioxide and other GHG emissions, followed by (ii) the biological footprint, i.e. the footprint of arable land, forestland, grazing land and other fertile areas, and (iii) the footprint of built-up land (i.e. infrastructure). Slovenia's ecological footprint declined during the recession, but then increased again, unlike in the EU overall, to reach 5.37 gha per capita in 2018. The gap with the EU average has widened in the last few years and was around 13% in 2018. This indicates economic development with a relatively high level of natural resource use and environmental pollution, meaning that Slovenia is not on track to reach the SDS target.

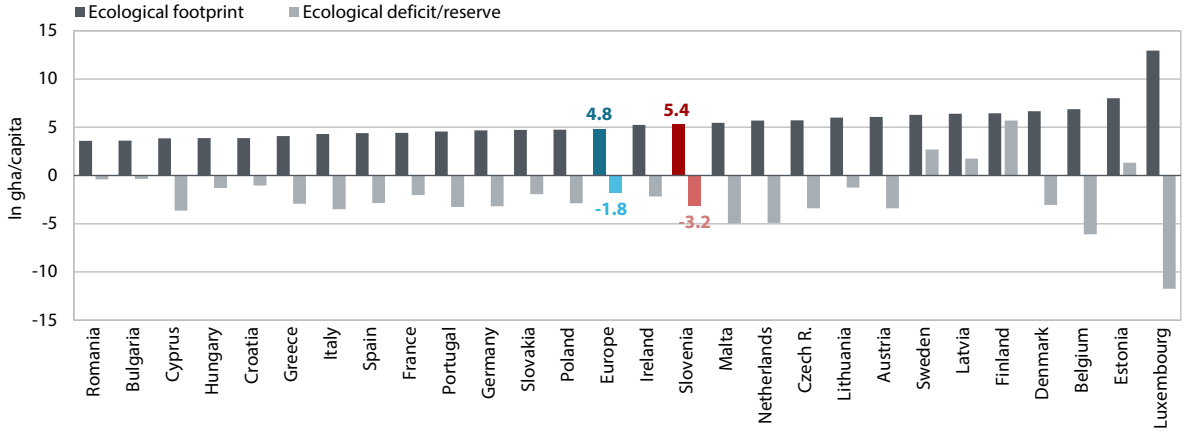
With its relatively high ecological footprint, the ecological deficit, i.e. the negative difference between the ecological footprint and biological capacity, was also high. Biological capacity or biocapacity refers to the biologically productive areas that are capable of self-regeneration.[2] Like the ecological footprint, it is expressed in global hectares – each global hectare produces the same quantity of biological materials. Biocapacity is fairly stable and does not change significantly from year to year. The bulk of Slovenia's biocapacity is accounted for by forests, which despite their large surface area cannot sufficiently absorb carbon dioxide emissions. The share of other areas, particularly arable land and fishing grounds, is relatively modest compared with the EU average. The results of the latest calculations show that Slovenia's ecological footprint (5,4 gha/capita) is more than two and a half times higher than the capacity of its nature to regenerate (2.2 gha/capita). Most EU Member States have an ecological deficit – only some Northern countries with sustainable economies and relatively extensive fishing grounds have an ecological reserve. Slovenia's ecological deficit (of 3.2 gha/capita) is significantly higher than the world average (of 1.2 gha/capita) and also the EU average (of 1.8 gha/capita).

Table: Ecological footprint in gha per capita

	2000	2005	2008	2010	2012	2014	2015	2016	2017	2018	SDS 2030 target
Slovenia	4.8	5.5	5.8	5.2	4.8	4.7	5.0	5.0	5.2	5.4	3.8
Europe	5.1	5.3	5.5	5.2	4.9	4.8	4.7	4.6	4.7	4.8	
World	2.5	2.7	2.8	2.8	2.8	2.8	2.7	2.7	2.8	2.8	
Slovenia/Europe, index	95.3	103.1	106.3	100.4	97.1	98.0	106.2	108.2	110.7	112.7	

Source: Global Footprint Network (2022). Note: According to the latest calculations, the ecological footprint value for Slovenia for all observed years was revised upwards.

Figure: Ecological footprint and the ecological deficit/reserve, 2018



Source: Global Footprint Network (2022).

[1] The ecological footprint is measured by the Global Footprint Network. The results of its calculations are available for around 200 countries for individual years of 1961–2018. New calculations and estimates up to and including 2022 will be published in April 2023.

[2] The total biologically productive area accounts for approximately a quarter of the Earth's surface, excluding ice masses, deserts and oceans, where renewable resources are not concentrated enough to have a significant impact.

Utilised agricultural area 4.9

Utilised agricultural area (UAA)[1] in Slovenia accounts for a significantly lower share of total land than in the EU as a whole, but this relatively modest share has been stable in the last decade after a long period of decline. UAA, which is crucial for ensuring food security, covered around 479,000 hectares in 2021, which is 23.7% of the total national territory. This is slightly less than in 2020 but about the same as a decade ago. Before that, the decline was more pronounced, due to the abandonment of agriculture, overgrowth of land by trees and conversion to built-up land, so that in 2021 it was 14% lower than at the time of the country's independence. Reducing overgrowth and fallow land and permanently protecting especially the best agricultural land from land conversion also remain priorities in efforts to achieve the SDS 2030 target of more than 24% of UAA in the country's total national territory.

In terms of ensuring conditions for local food production, the modest share of arable land is of particular concern. The structure of agricultural land has not changed significantly. In terms of *arable land (fields),* the most important type of land from a food security perspective, Slovenia is one of the four EU Member States with the least arable land per capita. Arable land in Slovenia covers about 36.6% of UAA or 8.3 ares per capita, while the EU average is 61% of UAA or 22 ares per capita. Less than 4% of this land is used for growing vegetables and almost four-tenths for growing fodder crops. These are also produced on *permanent grassland*, which covered the most, around 60%, of UAA. Six percent of UAA was accounted for by *permanent cropland*, where vineyards and orchards predominate.

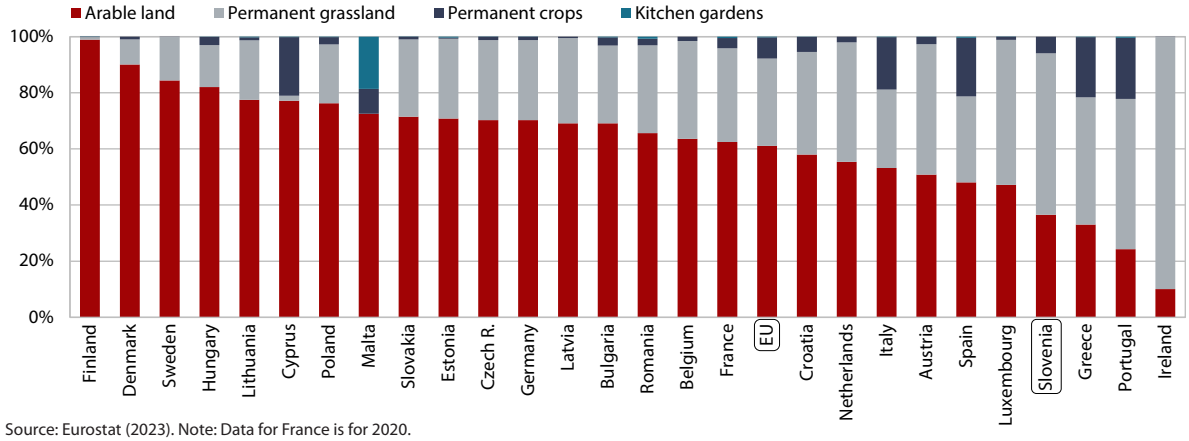
Organic farming, the most desirable form of agricultural production from an environmental perspective, is more widespread in Slovenia than in the EU as a whole and is constantly increasing. About 5% of all agricultural holdings were involved in controlled organic farming in 2021. They accounted for 10.8% of total UAA, which is 4% more than in 2020. Again, permanent pastures and meadows dedicated to fodder production account for the largest share (79%). However, this is not in line with demand, which is highest for organically produced fresh fruit and vegetables and processed vegetarian foods (KIS and MKGP, 2022). Given the natural conditions in Slovenia, i.e. the high proportion of farms in mountainous and other remote areas where intensive conventional farming is not possible, there is still much scope for further development of organic production in Slovenia.

Table: Utilised agricultural area (UAA), total and under organic farming

	2005	2008	2010	2012	2014	2016	2017	2018	2019	2020	2021	SDS 2030 target
UAA, share in total area, in %												
Slovenia	25.1	24.3	23.8	23.7	23.8	23.6	23.7	23.5	23.7	23.9	23.7	> 24.0
EU	N/A	40.0	39.4	39.0	39.1	39.1	39.1	39.3	39.5	39.3	39.1	
UAA, share under organic farming, in %												
Slovenia	4.6	6.1	6.4	7.3	8.6	9.1	9.6	10.0	10.3	10.3	10.8	
EU	N/A	N/A	N/A	5.9	6.1	7.1	7.5	8.0	8.5	9.1	N/A	

Source: Eurostat (2023); calculations by IMAD. Note: Land under organic farming includes land under conversion to organic farming; N/A – data not available.

Figure: Structure of UAA, 2021



Source: Eurostat (2023). Note: Data for France is for 2020.

[1] UAA includes the following land categories: arable land, permanent grassland and permanent crops. Arable land also includes fallow land, areas under clover and lucerne, grassland ploughed after five years, and hop fields. Permanent grassland is land used for grazing or mown for hay that has not been ploughed for at least five years. Land under permanent crops includes orchards, olive plantations, vineyards, nurseries, and vine and root-stock nurseries.

Agricultural intensity 4.10

Agricultural production in Slovenia is not among the most intensive, while stocking density is higher than the EU average. The intensity of agriculture in Slovenia is moderate, although yields from plant and livestock production have increased in the long term as technology has improved. In *plant production,* a comparison with the EU average for the two most important crops does not give a uniform picture: wheat yields per hectare tend to be lower, while maize yields are higher. Under the impact of weather conditions, yields vary considerably from year to year. In the drought year of 2022, the maize yield was one-third lower, although the area under maize was larger. The environmental burden of livestock production, as measured by the livestock units (LU) per hectare, has decreased in recent years but remains higher than in the EU due to natural conditions, with Slovenia ranking in the top third of Member States. However, despite an increase, the average milk yield per dairy cow is still significantly lower than the EU average. Parallel to the intensification of agriculture through product specialisation and concentration of agricultural production, organic farming, which takes place in harmony with nature and has the least environmental impact, is also increasing in Slovenian agriculture.

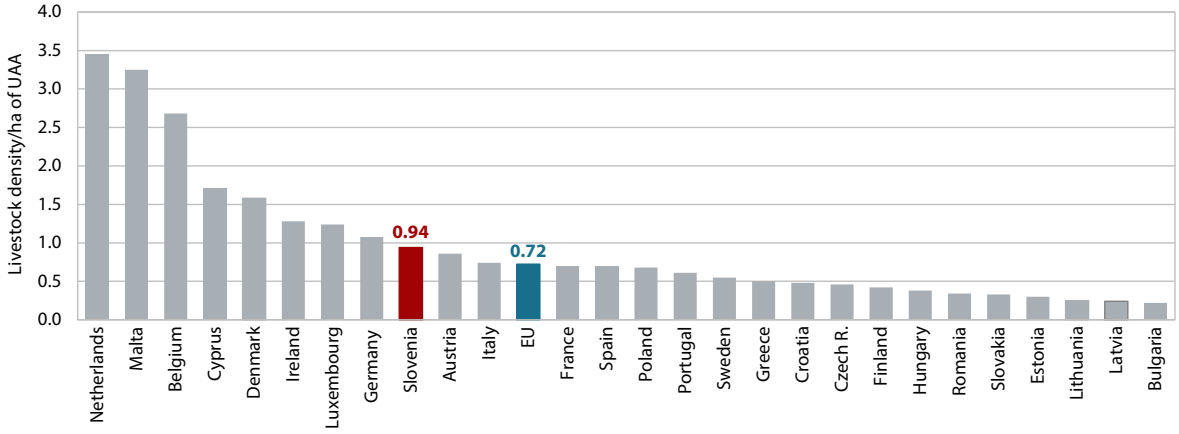
The downward trend in the consumption of mineral fertilisers and plant protection products (PPP) has continued in recent years. The consumption of mineral fertilisers containing nitrogen, phosphorus and potassium (NPK)[1] decreased despite a slight increase in UAA. The latest data show that N and P consumption per unit area is close to the EU average.[2] For the third year in a row, total PPP sales also decreased significantly, again amounting to less than 5.5 kg per unit of arable land in 2020, which still puts Slovenia in the upper middle range of EU Member States for which data is available. International comparison is quite challenging, as substances with different degrees of toxicity are involved and consumption also depends on the type of crops grown and weather conditions and thus on the occurrence of diseases and pests.

Table: Average yields of the main crops and consumption of NPK fertilisers and plant protection products

		2005	2010	2012	2014	2016	2017	2018	2019	2020	2021	2022
Average yields of wheat, maize and milk, in tonnes/ha or tonnes/cow												
Wheat and spelt	Slovenia	4.7	4.8	5.4	5.2	5.2	5	4.4	5.2	5.8	5.8	5.5
	EU	N/A	N/A	N/A	N/A	5.2	5.7	5.2	5.8	5.6	5.7	N/A
Maize for grain	Slovenia	8.3	8.5	7.1	9.2	9.5	7.1	9.5	9.3	10.8	9.4	6.3
	EU	N/A	7.1	6	8.1	7.3	7.8	8.4	7.9	7.3	7.9	5.8
Milk yield	Slovenia	5.5	5.5	5.6	5.7	6	6	6.1	6.2	6.4	6.4	6.7*
	EU	N/A	N/A	N/A	6.9	7.1	7.3	7.5	7.6	7.8	7.6	N/A
Fertilisers and pesticides, Slovenia, growth, 2005=100												
NPK fertilisers, consumption per unit of utilised agricultural area		100	89.3	83.1	87.0	86.6	85.8	85.7	84.1	83.1	79.8	N/A
Pesticides sales, in tonnes of active ingredients		100	80.2	71.9	71.4	81.8	76.9	82.9	70.7	70.2	65.9	N/A

Sources: Eurostat (2023), SURS (2023h); calculations by IMAD. Note: * provisional data KIS (2023); N/A – not available.

Figure: Average annual livestock density per hectare of utilised agricultural area (UAA), 2020



Source: Eurostat (2023); calculations by IMAD.

[1] Around two-thirds of pesticides are estimated to be used in agriculture. The rest is applied on non-agricultural land (such as alongside railway tracks and roads and in golf courses, parks, etc.).

[2] The structure of NPK fertiliser consumption in Slovenia consists of about 60% nitrogen and 20% each phosphorus and potassium. Eurostat publishes only data on nitrogen and phosphorus consumption. According to the latest data for 2019, Slovenia is the fourth largest consumer.

Intensity of tree felling 4.11

The intensity of tree felling, which had been relatively high in 2014 due to the sanitary felling after the glaze ice, decreased after 2019, before returning to the level it was at before the glaze ice in 2020 and 2021. After approximately half more wood mass was cut per year in 2014–2019 than in 2013, tree felling decreased in the next few years and was only 4% lower in 2021 compared to 2013. The *intensity of tree felling*, calculated as annual felling in relation to the annual wood increment, also fell to 47%, which is roughly the same as in the year before the glaze ice damage. Total tree felling accounted for 57% of that allowed under forest management plans.[1] However, the *structure of cut wood*, which had changed considerably during the period of sanitary felling, moved in the direction typical of normal conditions in 2021, as there were no natural disasters that caused major damage to the trees in that year. The share of sanitary logging[2] decreased by 16 p.p., to about one-quarter, and felling for tree-tending purposes, which accounts for the largest share under normal conditions, increased to about 70% of total tree felling. In the years to come, major sanitary logging will again be necessary due to an extensive fire in the summer of 2022 in the Goriška-Karst region.

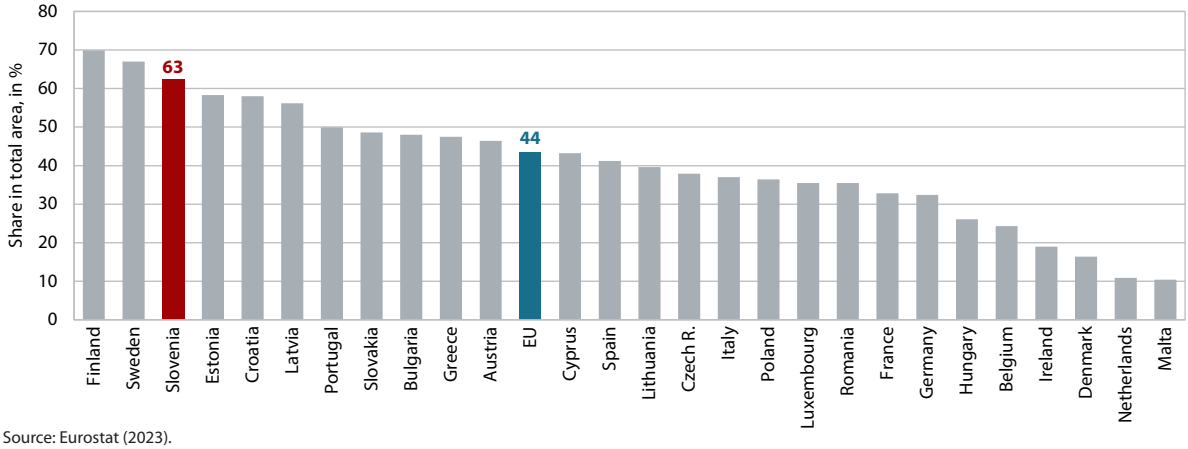
The lower felling in 2019–2021 was reflected in lower raw wood production, but the opportunities for further development of the forest–timber chain are still great due to the large forest cover, timber supply and its environmental acceptability. After the glaze ice damage, *production* increased for all wood categories, particularly the highest-quality wood, which generates the highest value added and was 9% more in 2021 than in the year before the ice glaze damage.[3] In 2021, *external trade in unprocessed wood* decreased again. With annual imports slightly dropping, total exports have increased by an average of 60% annually in the period since the ice damage, and exports of coniferous logs alone, which more than doubled in that period, decreased by 14% in 2021. Sixty-five percent of the timber harvested in 2021 remained for further use on the domestic market, an increase of 4 p.p. over the year before. The lower exports of this high-quality raw material makes sense, because it opens up new opportunities for higher value creation in the downstream forest–timber chain.

Table: Forests and their economic yield, Slovenia

	2000	2005	2010	2013	2014	2015	2017	2018	2019	2020	2021
Forest area (thousand ha)	1,134.2	1,169.2	1,185.2	1,183.4	1,181.9	1,182.0	1,180.3	1,177.2	1,176.8	1,176.1	1,176.5
Growing stock (in million m³)	262.8	300.8	331.0	342.4	346.1	348.2	352.9	355.3	356.7	357.2	357.0
Annual wood increment (in million m³)	6.9	7.6	8.1	8.5	8.6	8.6	8.7	8.8	8.8	8.8	8.7
Removals (in million m³)	2.6	3.3	3.4	3.9	6.3	6.0	5.0	6.1	5.3	4.2	4.1
Roundwood production (in million m³)	2.3	2.7	2.9	3.5	5.3	5.2	4.6	5.1	4.7	4.0	3.8
Intensity of tree felling (in %)	38.0	43.0	41.6	46.2	74.0	70.1	57.3	68.9	59.9	48.1	46.6

Sources: ZGS (2022), SURS (2023h); calculations by IMAD.

Figure: Forest area, 2018



Source: Eurostat (2023).

[1] The potential (or allowable) felling is determined with a view to ensuring sustainable development, i.e. the long-term stability of all forests and their habitats. In 2014–2019, the recorded tree felling was highest but was still lower than the amount allowed, although this gap was significantly narrower, at only about one-tenth.

[2] Sanitary felling is the felling of sick, damaged or drying trees that have been damaged by biotic (pest and disease outbreaks, wildlife) or abiotic (wind, snow, glaze ice, drought, landslides, polluted air) disturbances to such an extent that there they have no silvicultural future (SiDG, 2022).

[3] The ratio of felled wood to roundwood production is also dependent on the structure of raw wood categories obtained and the type of felled trees. In 2021, the yield was 94% (compared to between 83% and 95% in the period after the ice glaze damage).

Quality of watercourses 4.12

The quality of Slovenian watercourses, as measured by biochemical oxygen demand, is high. Their cleanness, which was close to the EU average at the beginning of the previous decade, has improved significantly since 2005. For several years, Slovenia has been among the top EU Member States for which data are available. The concentrations of nitrates in groundwater and phosphates in rivers, which in excessive quantities degrade water quality, have also fallen in the long term and were below the EU average.[1] The decline in organic pollution, which is usually caused by municipal and industrial wastewater discharges and runoff from agricultural land, is a consequence of a significant improvement in wastewater treatment and abandonment of certain economic activities, which were polluting watercourses with wastewater in previous years.

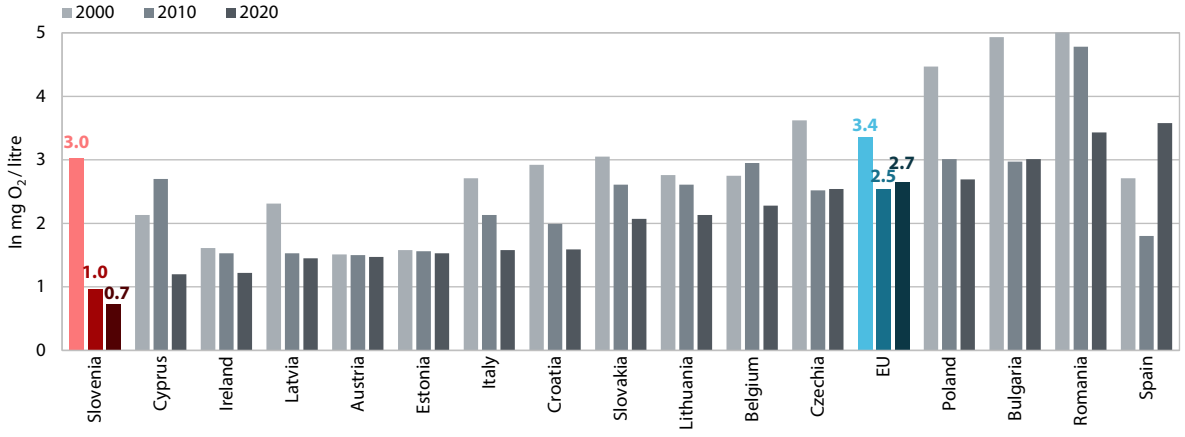
About one-fifth of wastewater in total and about two-thirds of municipal wastewater is treated before discharge. In Slovenia, which is, due to its diverse natural conditions, fairly rich in water resources and has a relatively high amount of freshwater resources available per capita, a total of 931.6 million m^3 of water was *abstracted* in 2021, 7% less than a year before. The majority of this water comes from surface water sources (for industrial use). Only one-fifth was abstracted from groundwater sources (intended for the public water supply system and irrigation). A total of 974.5 million m^3 of wastewater was *discharged* into the environment.[2] The share of water treated before discharge increased from 11% to 18% between 2015 and 2021, while the majority of untreated water is only thermally polluted (due to its use in hydroelectric power plants). In 2021, 69% of the municipal wastewater from sewers was treated in wastewater treatment plants before being discharged into the environment.

Table: Water quality indicators

	2000	2005	2010	2012	2014	2015	2016	2017	2018	2019	2020	SDS 2030 target
Biochemical oxygen demand in rivers, in mg O_2/l												
Slovenia	3.0	3.3	1.0	1.0	0.8	0.8	0.8	0.8	0.9	0.8	0.7	< 1
EU	3.4	3.0	2.5	2.8	2.7	3.0	3.0	2.8	2.6	2.6	2.7	
Nitrates in groundwater, in mg NO_3/l												
Slovenia	15.0	17.7	14.1	13.6	13.9	12.8	14.2	13.3	14.4	12.6	12.5	
EU	22.8	22.8	23.5	23.2	23.4	23.3	23.5	23.0	25.5	21.0	20.8	
Phosphates in rivers, in mg PO_4/l												
Slovenia	0.04	0.03	0.02	0.03	0.02	0.04	0.03	0.03	0.02	0.02	0.02	
EU	0.09	0.08	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.07	0.07	

Source: Eurostat (2023). Notes: The values for Slovenia according to SURS are slightly different than according to Eurostat for all categories. According to SURS data, the biochemical oxygen demand was 1.1 mg O_2/l in 2020 and 1.0 mg O_2/l in 2021.

Figure: Biochemical oxygen demand in rivers



Source: Eurostat (2023). Note: The values for Slovenia according to SURS are somewhat higher than according to Eurostat due to a greater number of sampling places.

[1] *Biochemical oxygen demand* (BOD) is an index of the degree of organic pollution in water. It refers to the amount of oxygen required by aerobic microorganisms to decompose organic substances in a water sample under certain conditions. The cleanest rivers have BOD values of less than 1 mg O_2/l, while moderately and heavily polluted rivers show values ranging from 2 to 8 mg O_2 per litre. *Nitrates in groundwater* are long-lasting and accumulate through inputs from anthropogenic sources, mainly agriculture. To prevent adverse health effects, the EU drinking water standard is limited to 50 mg NO_3/l. The high levels of *phosphates in rivers* can cause eutrophication, i.e. excessive growth of microphytes and algae, which has an adverse effect on water quality (Eurostat, 2023).

[2] Wastewater includes runoff rainwater and rainwater that flows back to the environment through the sewerage system or is captured and then discharged directly to the environment.

Ambient air quality 4.13

The quality of ambient air in Slovenia is closely related to particulate matter (PM) pollution,[1] which is mainly a consequence of inappropriate burning of wood biomass and poor ventilation of some areas. Most of the particulate matter (PM_{10}) pollution, about 50%, is due to emissions from *small combustion*, to a large extent owing to households' outdated wood biomass furnaces and the often unfavourable weather conditions in the poorly ventilated basins and valleys of the continental part of Slovenia. *Industrial processes and product use*, especially road construction (a quarter) and road transport (7%), are also major sources of PM_{10} emissions (ARSO, 2023a). In Slovenia, the finest $PM_{2.5}$ particles, which are most harmful to health, account for more than 70% of particulate pollution (60% in the EU). The urban population exposure to air pollution by particulate matter has decreased in recent years due to the reduction of industrial emissions and milder winters, but Slovenia is still among the countries with the highest $PM_{2.5}$ pollution in the EU. We assume that ambient air quality deteriorated during the energy crisis due to the increased use of wood as fuel in small combustion units. The pollution also depended on weather conditions during the heating season.

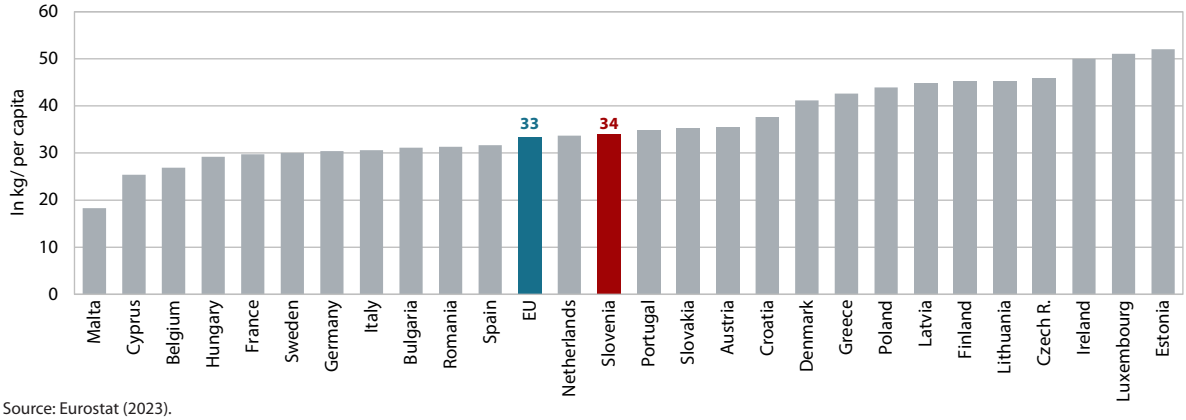
Another problem is the locally high presence of ground-level ozone. As the formation of ozone requires sufficient sunlight, the excessive concentrations of ozone, in contrast to particulate matter, mainly occur during the summer months. They are primarily the result of road traffic, the main source of ground-level ozone precursors,[2] the amount of which increased the most in Slovenia of all EU Member States, by about a third, and was close to the EU average per capita in 2020. In Slovenia, the ambient concentration of ozone is significantly affected by transboundary air pollution and is highly dependent on winds from the west. It is highest in the Primorska region, although it is also high in most other areas, even in rural areas and at higher altitudes (ARSO, 2022b). Measurements of ground-level ozone show that the long-term target values have been exceeded throughout Slovenia, but no clear trend can be seen from the multi-year data series due to the strong dependence on weather conditions.

Table: Urban population exposure to particulate matter and ozone, in micrograms per m³

	2000	2005	2010	2012	2014	2015	2016	2017	2018	2019	2020	2021
PM_{10}												
Slovenia	N/A	40	29	26	22	26	24	24	23	20	20	19
EU	32	29	27	26	23	24	22	23	23	21	N/A	N/A
$PM_{2.5}$												
Slovenia	N/A	28	22	20	17	21	21	19	17	14	14	14
EU	15	16	19	18	16	16	15	15	15	13	N/A	N/A
Ozone, Slovenia												
No. of days with exceeded values	N/A	46	24	40	31	28	24	32	26	31	19	28

Sources: ARSO (2023a), Eurostat (2023). Note: The data on PM levels for Slovenia from ARSO are generally somewhat lower than those from Eurostat. The average annual concentrations of particulate matter and the number of days with exceeded ozone values in urban background areas are given. The annual concentration limit recommended by the WHO to protect human health is 20 µg/m3 for PM10 and 10 µg/m3 for PM2.5 (ARSO, 2021b). The exceedance of the target values for ozone is determined on the basis of ozone concentrations that were measured in the previous three-year period at measuring points representative for the area (Decree on ozone in ambient air, 2003); N/A – data not available.

Figure: Emissions of ground-level ozone precursors in kg per capita, 2020



Source: Eurostat (2023).

[1] The most frequently measured particles are those sized 10 µm or less (PM_{10}) and 2.5 µm or less ($PM_{2.5}$). These are the most damaging for health, causing increased morbidity and mortality due to respiratory and cardiovascular diseases and also associated with increased risk of diabetes and Alzheimer's disease.

[2] Ozone precursors include nitrogen oxides (NO_x), carbon monoxide (CO), methane (CH_4) and non-methane hydrocarbons (NMVOC).

Functionally derelict areas 4.14

As the revitalisation of existing functionally derelict areas (FDAs)[1] continues, the growth of new FDAs has moderated. The number of FDAs in 2023 fell below the level recorded by the first census in 2017 (the register is updated every three years). Activity in 273 FDAs resumed and these areas were deleted from the FDA register. Fewer new FDAs were created, also taking into account the FDAs overlooked in the previous censuses. Investment activity in relation to FDAs continued between the last two censuses and was further boosted in 2022 by the implementation of the Cohesion Policy and the Recovery and Resilience Plan. This has accelerated revitalisation, especially in the areas of industry and crafts, trade and services, unfinished residential areas, and abandoned building sites. At the same time, the abandonment of various activities has continued and areas of transitional use have been created in particular.

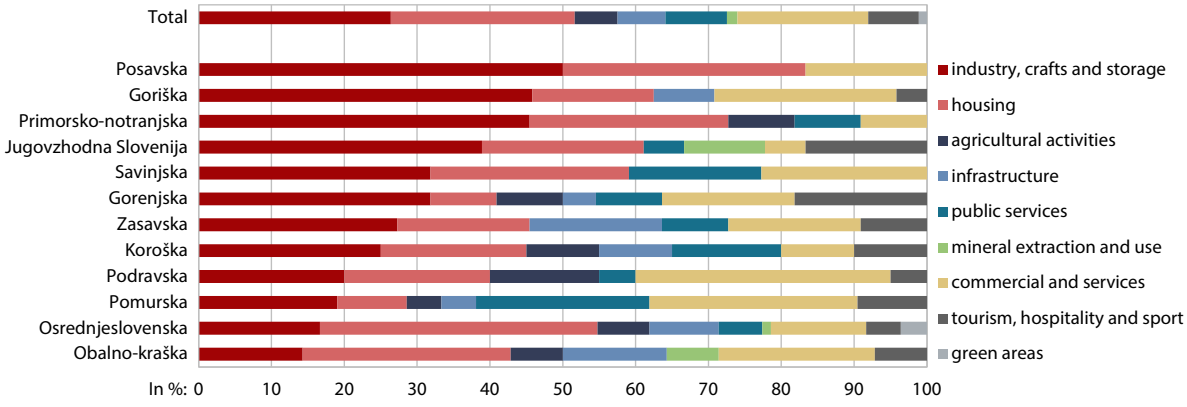
Revitalisation intensified in all regions and the new activities in formerly derelict areas were not always used as originally planned.[2] A quarter of all revitalised areas served industry, crafts and storage,[3] but most revivals were not planned (see Chapter 4). In the Posavska region (50%) and Primorsko-Notranjska and Goriška regions (46%), most of the revitalised areas served this activity (see figure). The second most common new activity in the revitalised areas was housing, with the highest share in the Osrednjeslovenska and Posavska regions (38% and 33% respectively). The revitalised areas for housing mainly concern elite residential neighbourhoods, which will not significantly alleviate the deficit of public rental housing (see Chapter 3). Commercial and services make up the majority of the revitalised areas in the Podravska region especially. Revitalisation of activities for which investment funds are provided by local authorities (public services e.g. old people's homes, community spaces, houses of culture/cultural centres) also increased, especially in the Pomurska and Savinjska regions, often in connection with the implementation of cohesion policy.

Table: FDAs by type and revived areas

	Number of all FDAs in the year			Revived FDAs, 2017–2023		
FDA:	2017	2020	2023	Number	Share (%)	Area (ha)
- of industrial, craft and storage activities	228	216	180	69	25.3	240.4
- infrastructure	128	164	149	30	11.0	69.2
- agriculture	74	85	81	13	4.8	44.6
- defence, protection and rescue	34	35	33	5	1.8	14.8
- transitional use	116	140	155	32	11.7	86.4
- mineral extraction and use	172	182	183	14	5.1	56.8
- commercial and services	171	191	148	58	21.2	157.0
- tourism, hospitality and sport	60	68	74	14	5.1	13.0
- housing	98	86	71	38	13.9	48.4
Total	1081	1167	1074	273	100.0	730.6

Source: FF UL (2023).

Figure: Structure of new functions on revived FDAs in regions, in %, 2017–2023



Source: FF UL (2023).

[1] FDAs refer to not fully utilised or abandoned land with a visible loss of function of more than 0.5 ha (or 0.2 ha in urban areas).
[2] The FDA types (see table) do not fully match the new activities in the revitalised areas (see figure).
[3] New activity was established in 69 FDAs for industry, crafts and storage (not always for the same purpose). In addition, other FDA types were revived (72 in total) whose new activity also serves industry, crafts and storage (see figure).

5 A high level of cooperation, competence and governance efficiency

Efficient governance and high-quality public service

A trustworthy legal system

A safe and globally responsible Slovenia

Trust in institutions 5.1

After two years of decline, trust in most national institutions increased in 2022, but it decreased again in 2023 and is still far below the SDS target.[1] It was at its highest and above the EU average in 2006 but has dropped significantly since then. Trust in most institutions was at its lowest at the end of the global financial crisis, while it improved in 2013–2019 but still remained below the EU average.[2] During the epidemic, which had an impact both on transformation of the economy and on people's lives, trust in the country's key institutions decreased again (see IMAD, 2021b, 2022e).[3] In the summer of 2022, trust in the parliament and government was the highest since 2008 and trust in political parties increased compared to 2021 and also to the previous measurement (January–February), which can be linked to the political changes (National Assembly elections). In the winter of 2023, trust in the government, parliament and political parties fell again and was below the EU average. Trust in local authorities increased, and this is still the institution people trust the most, while political parties are the least trusted institution.

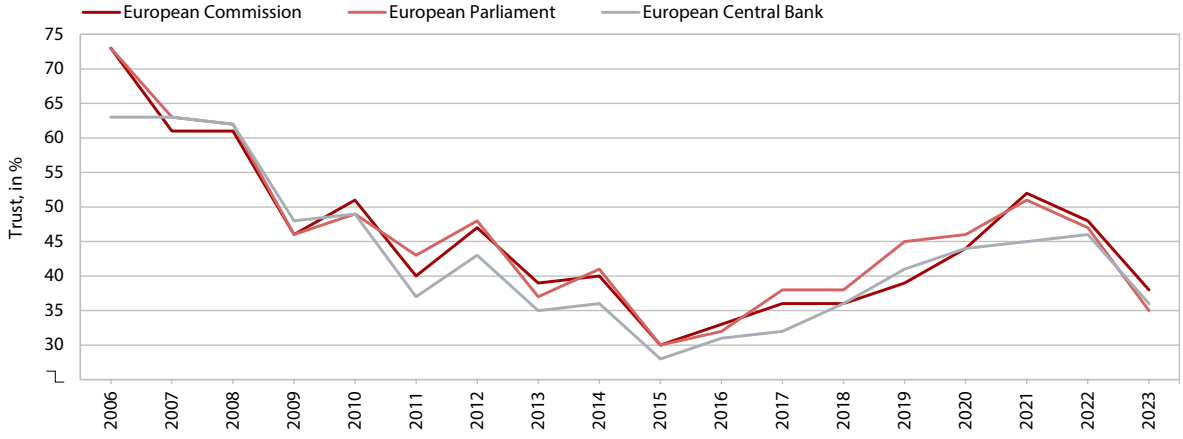
After increasing in previous years, trust in the EU and most of its institutions decreased in 2022 and 2023. It was at its highest in 2006 and lowest in 2015. After increasing in 2015–2021, it decreased again in 2022 and 2023. At the beginning of 2023 (winter measurements), 40% of respondents trusted the EU, which is less than in the previous measurements (June–July 2022) and less than the EU average.[4] Trust in European institutions also decreased significantly compared to the previous measurements. Thirty-eight percent of respondents trusted the European Commission (EU: 46%), 36% the European Central Bank (EU: 46%) and 35% the European Parliament (EU: 49%).

Table: Trust in institutions, in %

		2006	2008	2010	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	SDS 2030 target
Parliament	Slovenia	42	34	23	6	9	11	14	17	22	26	22	19	34	26	At least half of the population trust public institutions (the average of the last three years)
	EU	33	34	31	25	30	28	32	35	35	36	36	35	34	33	
Government	Slovenia	43	36	27	10	13	16	17	17	23	31	25	25	37	29	
	EU	30	34	29	23	29	27	31	36	35	35	40	37	34	32	
Local authorities	Slovenia	N/A	39	39	29	31	27	38	43	40	46	50	48	44	47	
	EU	N/A	50	47	44	43	42	47	51	54	54	57	57	54	56	
Political parties	Slovenia	20	17	11	6	6	6	6	8	10	14	12	10	14	12	
	EU	17	20	18	14	14	15	16	18	18	20	23	21	21	21	
EU	Slovenia	70	60	47	37	40	30	37	38	37	46	47	55	44	40	
	EU	45	47	42	31	37	32	36	41	42	45	43	49	49	47	

Source: Eurobarometer (2022f, 2023b). Note: The figures for individual years are the latest available data for that year (autumn measurements, 2020–2022: summer measurements, 2023: winter measurements). For the EU, the figures for 2006 are for the EU-25, the figures for 2008 and 2010 are for the EU-27, the figures from 2013 to 2018 are for the EU-28, and the figures from 2019 are for the EU-27; N/A – data not available.

Figure: Trust in EU institutions, Slovenia



Source: Eurobarometer (2022f, 2023b). Note: The figures for individual years are the latest available data for that year (autumn measurements, 2020–2022: summer measurements, 2023: winter measurements).

[1] The source of the data is Eurobarometer, which is based on public opinion polls on the level of trust in selected institutions, with the possible answers being "tend to trust", "tend not to trust" and "don't know". The figures for individual years are the latest available data for that year (January–February measurements for 2023).
[2] Trust in political parties started to improve slightly only in 2017.
[3] Trust in institutions was lowest in the February–March 2021 measurements, when a number of containment measures were taken to prevent the spread of COVID-19.
[4] At the start of 2023, 40% of respondents in Slovenia held a positive image of the EU, which is 5 p.p. less than in the previous measurements (June–July 2022) and below the EU average (45%). The share of respondents who estimated that things were going in the right direction in the EU fell by 5 p.p. (32%; EU: 33%).

Executive capacity[1] 5.2

The executive capacity indicator, which measures the strategic governance of public institutions, is improving in Slovenia but remains below the EU average. The executive capacity indicator is a part of sustainable governance indicators and is measuring government and institutional performance in eight dimensions: strategic capacity, inter-ministerial cooperation, regulatory impact assessment, societal consultation, policy communication, the implementation of set measures, adaptability and the capacity for reforming the public administration. Since 2017, the indicator value and Slovenia's rank among the EU Member States have improved, but Slovenia continues to lag behind the EU average in most indicator dimensions. During the COVID-19 epidemic, the index improved, but Slovenia's ranking dropped by one place (to 19th among EU Member States). Slovenia is still behind the SDS target, but the gap is gradually, albeit slowly, narrowing.

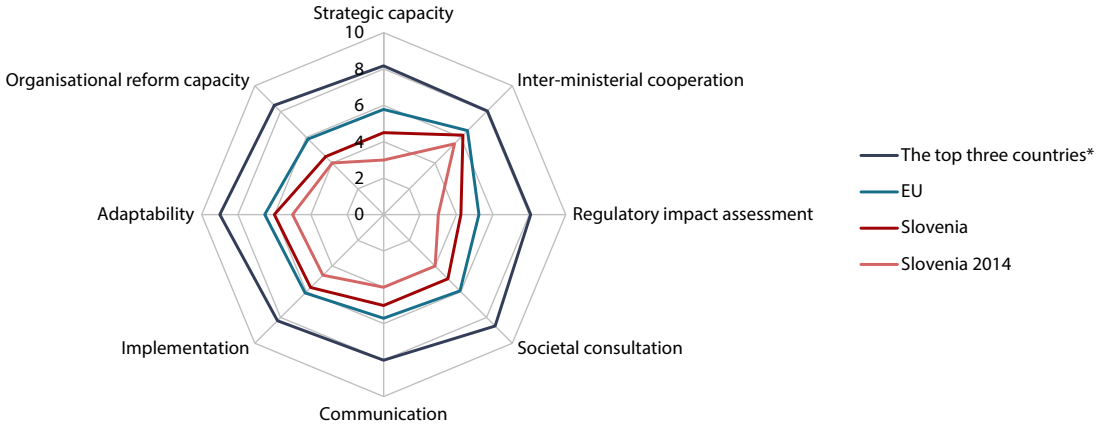
A low executive capacity score points to the relatively low government and institutional performance. In the SGI survey (Bertelsmann, 2022),[2] the main weaknesses identified were in effective strategic planning and organisational reforms, where only limited progress has been made in recent years, for example when it comes to the formation of expert consultative groups. During the COVID-19 epidemic, the scores on resilience to the new situation and implementation of measures, especially funding, improved, but these scores remain far below the EU average. However, there has been a sharp deterioration in government communication score, partly due to dissatisfaction with the containment measures taken during the epidemic. Slovenia also lags behind other countries in producing a comprehensive assessment of the impact of proposed regulations (i.e. an RIA) on public finances, the economy, the environment and society as a whole.

Table: Executive capacity indicator, Slovenia and the EU

	2014	2015	2016	2017	2018	2019	2020	2020	SDS 2030 target
Slovenia*	4.46	4.64	4.81	4.77	4.81	4.91	4.97	5.33	EU average in 2030
EU	6.02	6.04	6.04	6.04	6.05	5.95	5.94	6.05	

Source: Bertelsmann, 2022; calculations by IMAD. Note: Scores range from 1 to 10, with higher being better; * for Slovenia, the indicator was calculated for the first time in 2014. No index was published for 2021.

Figure: Executive capacity indicator by dimension, 2022



Source: Bertelsmann, 2022; calculations by IMAD. Note: * The top three countries are Sweden, Finland and Denmark. A higher score is better, with the highest score being 10.

[1] An important limitation of sustainable governance indicators (SGIs) is the small size of the sample of experts included in the survey in individual countries.
[2] The survey was conducted in the first half of 2020 and published in September 2020, which means that the impact of the COVID-19 epidemic on the executive capacity of the countries surveyed is largely ignored.

The Rule of Law Index 5.3

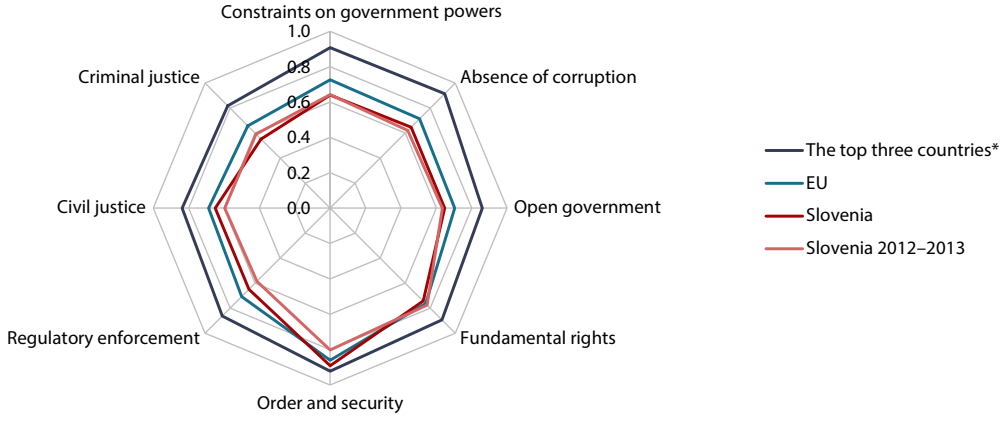
Slovenia ranks in the lower half of EU Member States on the Rule of Law Index; its ranking has not changed significantly since 2012.[1] The rule of law highlights the principle of equality before the law and emphasises the inviolability of the authority of the law and rules. This means that the government itself respects the law, that the functioning of government bodies is bound by law, and that fundamental human rights and freedoms are ensured. By being ranked in the lower half of EU Member States on the Rule of Law Index, in a position which has not improved significantly in the long term (2012–2022), Slovenia lags behind the SDS target. Slovenia scores best in the category of order and safety, where it is close to the top-ranking Scandinavian countries. The only other category where it also ranks close to the EU average is fundamental rights (where it scores well on the right to life, the right to work, and respect for the law and the rights of the accused). On the other hand, it lags most behind the EU average in criminal justice, with indicators in this area reflecting mistrust in the justice system, particularly in its independence. Weaknesses in adherence to the rule of law are also indicated by the low indicator values in the areas of responsibility and powers of government policy (e.g. the sanctions for official misconduct indicator, compliance with legislation and respect for the judiciary by the government) and the absence of corruption (e.g. the risk of corruption in the executive branch and in the legislature). According to Eurobarometer (2021b), respondents in Slovenia are less well informed about the rule of law in the country than the EU average, and a high proportion of respondents believe that the EU's fundamental values, such as human rights, the rule of law and democracy, are not sufficiently protected (Slovenia: 62%; EU: 32%).

Table: Rule of Law Index, Slovenia and the EU

	2012–2013	2014	2015	2016	2017–2018	2019	2020	2021*	2022*	SDS 2030 target
Ranking among EU Member States*										
Slovenia	14	14	14	14	14	13	13	18*	19*	Ranking in the top half of EU Member States
Score										
Slovenia	0.66	0.65	0.66	0.67	0.67	0.67	0.69	0.68	0.68	
EU*	0.72	0.71	0.72	0.73	0.73	0.73	0.73	0.73	0.73	

Source: World Justice Project (2022). Note: Scores range from 0 to 10, with higher being better; data for the overall index are available from 2012 onwards; * data for 2012–2020 was available only for 20 EU Member States; since 2021, data has been available for all Member States, which affected the absolute ranking.

Figure: Rule of Law Index by sub-component, 2022



Source: World Justice Project (2022). Note: Scores range from 0 to 1, higher being better; * the top three countries are Denmark, Finland and Sweden.

[1] The deterioration in 2021 is the result of a methodological change, i.e. an increase in the number of countries included in the survey (20 EU Member States until 2020 and 27 since 2021). Taking into account only the countries from previous years, Slovenia's rank remained unchanged in 2021 and 2022 (13th place).

The expected time needed to resolve litigious civil and commercial cases 5.4

The expected time needed to resolve litigious civil and commercial cases,[1] which shortened significantly in 2008–2019, increased sharply during the epidemic and remained longer than the EU average. In 2008–2014, Slovenia saw a shortening of the expected time needed to resolve litigious civil and commercial cases at the first instance by more than 40%, in large part due to the project to eliminate court backlogs and other structural reforms (e.g. insolvency legislation). Since 2014, the time needed to resolve these cases has increased (to 350 days in 2020), moving away from the SDS 2030 target (200 days) and widening the gap with the EU average. Similarly to Slovenia, the expected time needed to resolve cases in other EU Member States has increased significantly. Meanwhile, the expected time needed to resolve a case at the second and third instances remains among the shortest in the EU. Court proceedings related to money laundering take the longest compared to other countries (925 days; EU: 336 days). However, owing to the different data and methodology used in the calculation, the expected disposition time differs from the time actually taken to resolve a case.

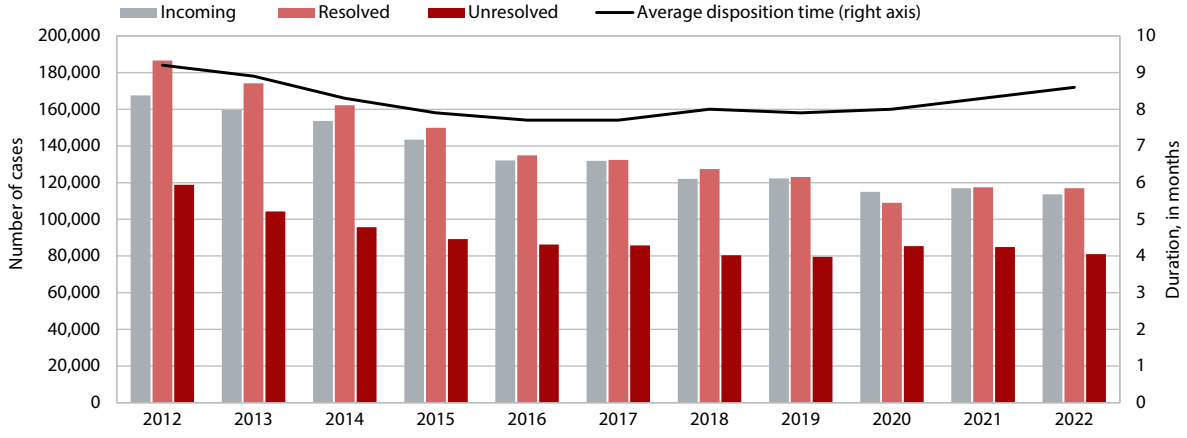
The average time needed to resolve a case shortened, though the time needed to resolve major cases has lengthened slightly.[2] The average time needed to resolve a case has shortened significantly over the past few years, to one month in 2022. Up to 2016, the time needed to resolve a major case was also rapidly decreasing, largely as a consequence of a smaller incoming caseload and greater efficiency of the courts. This amount of time has not changed significantly since 2016 and has lengthened somewhat in the last three years. This can be attributed, among other things, to new competences given to the courts by legislative amendments, although the courts still resolved more cases than came in in most years.[3] The limited functioning of the courts due to the COVID-19 epidemic affected caseload and efficiency indicators in 2020,[4] but in 2021 and 2022, the courts again resolved more cases than came in. The share of pending major cases in the total number of unresolved cases has thus increased (from 46.9% in 2016 to 67% in 2022).

Table: Time needed to resolve litigious civil and commercial cases at the first instance, in days

	2008	2010	2012	2013	2014	2015	2016	2017	2018	2019	2020	SDS 2030 target
Slovenia	460	315	318	301	270	277	280	292	283	281	350	200 days
EU	299	288	278	300	253	244	252	242	250	258	294	

Source: EC (2022aa).

Figure: Major cases at courts, Slovenia



Source: Supreme Court (2023b, 2023a).

[1] The expected length of proceedings indicates the estimated time (in days) needed to resolve a case in court, i.e. the time taken by the court to reach a decision at the first instance.

[2] Major cases, which account for around 15% of the total caseload, are all cases defined as such in the methodology for recording statistical data, which is published at: https://poslovanje-sodstva.sodisce.si/en/explanatory-notes/.

[3] The ratio of the number of resolved cases to the number of incoming cases in the last 12 months was above 100% in 2016–2022, except in 2020, when the functioning of courts was restricted due to the epidemic. In 2022, it was 103%.

[4] In 2020, the courts resolved 5% fewer major cases than came in (0.2% fewer cases overall).

The Corruption Perception Index 5.5

The perception of corruption remains high in Slovenia and has further increased in recent years.[1] The Corruption Perception Index (CPI), published by Transparency International (2023), is based on the rate of public sector corruption as perceived by businesses, experts and analysts. Slovenia is ranked 41st in the world and 16th among EU Member States. Since 2012, Slovenia has made no progress and its rank even fell slightly in the last two measurements and the gap with the EU average widened. At the last measurement, the index value was at its lowest level since measurements began in 2005. At the EU level, as many as 10 countries had a poorer score at the last measurement than in 2005. Slovenia is among the EU Member States (with Cyprus, Hungary, Spain and Malta) with the highest increase in the perception of corruption since 2012, while it does better than most countries that joined the EU after 2003. According to Eurobarometer (2022d), 87% of respondents think that corruption is widespread in Slovenia, but at the same time, a large majority of respondents have no personal experience of corruption. The high perception of corruption in Slovenia can to a great extent be attributed to respondents believing that high-profile and major cases of corruption are not adequately sanctioned, while at the same time respondents point out that the persons reporting corruption are not sufficiently protected.

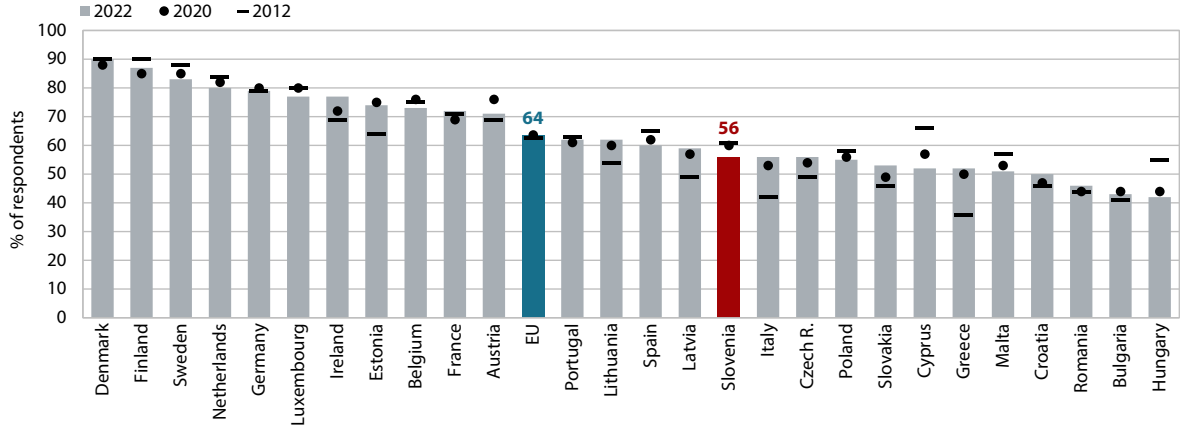
The last three years were marked by the COVID-19 epidemic and the ensuing crisis, which exposed corruption risks, particularly in relation to the purchase of medical equipment. This has had an impact on the increase in the number of reports of corruption in the first year of the epidemic (CPC, 2021). In 2021, the number of reports of corruption decreased and was lower than before the epidemic. Half of the reports concerned suspicions of corruption. Other reports included violations of conflict of interest rules (14%) and breaches of integrity on the part of a public official (5%). Almost 20% of reports were dismissed because they did not refer to violations of the Rules of Procedure. The number of offences committed also decreased slightly compared to the previous year, while the number of recommendations to public bodies on corruption risks increased by around 50%. Most of the proceedings initiated and decisions issued in recent years relate to conflicts of interest and incompatibility of functions (CPC, 2022a). In its regular monitoring, the CPC (2022b) found that the procurement of protective equipment needed to combat the epidemic was generally subject to an increased risk of corruption, and that some hospitals procured protective equipment outside public procurement procedures when the epidemic broke out. The investigation resulted in 29 infringement proceedings and several recommendations.

Table: The Corruption Perception Index

	2005	2008	2009	2010	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Slovenia	61 (15)	67 (11)	66 (10)	64 (12)	61 (15)	57 (16)	58 (16)	60 (15)	61 (14)	61 (13)	60 (13)	60 (14)	60 (14)	57 (16)	56 (16)
EU	62.4	63.6	59.9	61.5	62.6	62.8	63.7	65.0	64.0	65.0	64.1	63.9	63.7	63.7	63.6

Source: Transparency International (2023). Note: The index scale ranges from 0 to 100, where 0 means that a country is perceived as being highly corrupt and 100 means that a country is perceived as being "very clean". The figure in brackets shows Slovenia's rank among the EU Member States.

Figure: The Corruption Perception Index



Source: Transparency International (2023). Note: The index scale ranges from 0 to 100, where 0 means that a country is perceived as being highly corrupt and 100 means that a country is perceived as being "very clean". The figure in brackets shows Slovenia's rank among the EU Member States.

[1] Most of the sources for compiling the Corruption Perception Index are based on research and surveys from 2020 or the first half of 2021.

Share of population reporting problems with crime, vandalism or violence in the local area 5.6

The share of population[1] reporting problems with crime, vandalism or violence in the local area in 2020[2] was the lowest in 15 years and in line with the SDS target. It was 7.3%, slightly lower than the previous year, as in most other EU Member States, which may be partly due to the measures taken to contain the spread of COVID-19. In the last decade, it has constantly been below the EU average. The incidence of crime is mostly affected by socio-economic factors and social climate, and crime is also more common in urban environments. The share of households reporting problems with crime in their local environment decreased in most regions in 2020, with the smallest decrease in the Koroška region (SURS, 2023h). Jugovzhodna Slovenija continued to stand out on this indicator with the highest share, exceeding the Slovenian average by three-quarters. Despite the decrease in 2020, it grew the most in this area compared to 2010. In 2020, the Slovenian average was exceeded by the Obalno-Kraška, Posavska and Osrednjeslovenska regions. In the latter, the share of households reporting problems with crime decreased the most compared to 2010 but was still above the Slovenian average in 2020. The Osrednjeslovenska region has the most urbanised areas in Slovenia, which increases the potential for crime. Important factors that contribute to a reduction in crime are a better quality of life for families in the community (the prevention and reduction of poverty and social exclusion), high-quality implementation of educational work in schools, and more comprehensive organisation of social life and surveillance in the local community (Meško and Sotlar, 2012).

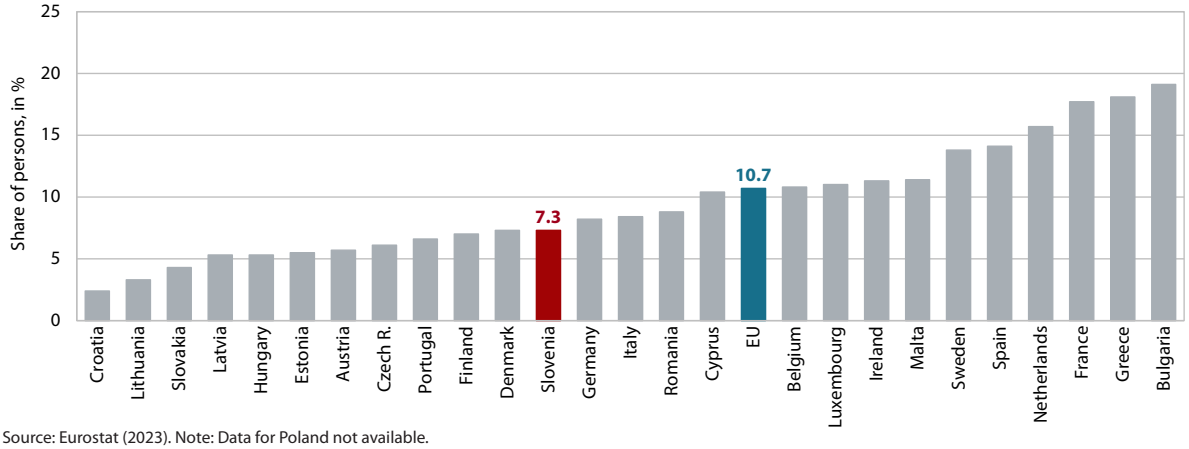
Slovenia is a safe country, which has a positive impact on the quality of life. The results of the European Social Survey suggest that the share of respondents who have had personal experience of burglary or physical assault after 2010 hovered between 9% and 11% and, according to the 2020 data[3] (10%), was slightly lower than the average for countries included in the survey (11%)[4] (CJMMK, 2022; ESS-ERIC, 2020). In addition to the personal experience of crime, people's quality of life is also affected by the feeling of being threatened in the immediate environment, which was consistently lower in Slovenia than the average of the countries participating in the survey. In 2020, 94% of respondents felt safe when walking alone in their neighbourhood at night, which is the same as in 2018 and significantly above the international average (76%).

Table: Reported crime, vandalism or violence in the local area, in %

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	SDS 2030 target
Slovenia	9.3	8.6	8.1	9.1	10.1	9.2	8.5	8.0	7.9	8.0	7.3	< 10%
EU	13.1	13.2	12.8	14.1	13.6	13.2	12.5	11.5	11.5	11.0	10.7	

Source: Eurostat (2023).

Figure: Reported crime, vandalism or violence in the local area, 2020



Source: Eurostat (2023). Note: Data for Poland not available.

[1] The unit described in the Living Conditions Survey (EU-SILC) is private households and the persons living in these households. Eurostat data refer to persons (household-level data are attributed to all persons in the household), while SURS data (regional survey) refer to households.
[2] In 2020, the survey was conducted in two periods due to the epidemic (January–March and May–September), so that the data for 2020 are not fully comparable with the data from previous years (Stare et al., 2021).
[3] Due to the epidemic, data for 2020 were obtained in two periods: from 18 September to 19 October 2020 and from 1 June to 31 August 2021.
[4] The chart shows the total average result of the selected countries regardless of the size of the national samples or the size of the country (Austria, Bulgaria, Croatia, Czech Republic, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Lithuania, the Netherlands, Poland, Portugal, Slovenia, Slovakia, Spain and Sweden).

The Global Peace Index 5.7

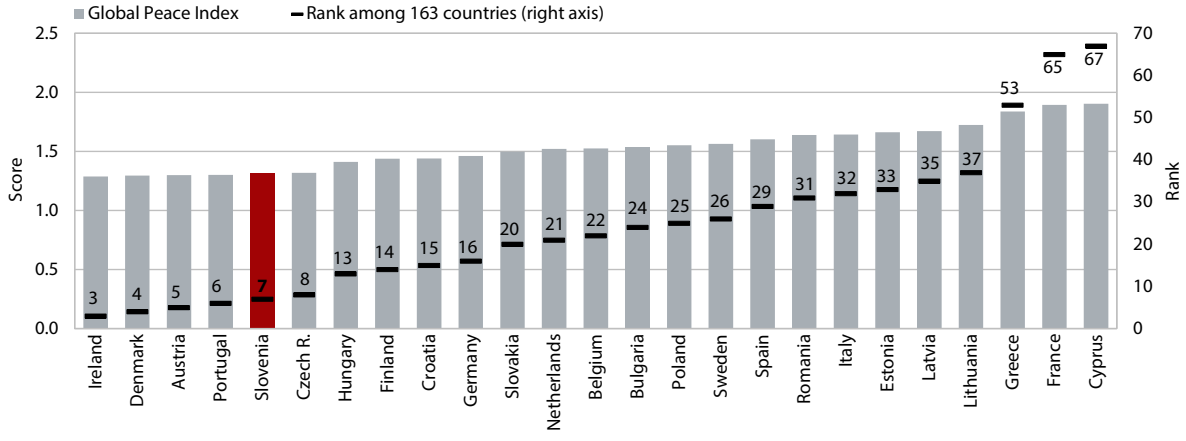
According to the Global Peace Index,[1] Slovenia was once again one of the most peaceful countries in the world in 2022, which is in line with the SDS 2030 target. In the last decade, Slovenia has been one of the world's most peaceful countries. In 2022, it was 7th among 163 countries in the world and 5th among EU Member States, but its ranking dropped slightly compared to 2021. While Slovenia is once again among the ten best-performing countries in the areas of militarisation (only Iceland scored better) and societal safety and security, it scored worse in the area of domestic and international conflict, which is mainly due to the still slightly worse assessment of relations with neighbouring countries and the intensity of organised internal conflicts. It has also scored slightly lower over the past decade with regard to the indicators of the numbers of internal security officers and police per 100,000 people.[2] Compared with other countries, Slovenia nevertheless ranks relatively high in these areas, but these scores indicate certain shortcomings that do not significantly affect the assessment of peace in the country. According to the Global Peace Index for 2022, Europe was the most peaceful region in the world and was home to seven of the ten most peaceful countries in the world (six of which are EU Member States). The Middle East and North Africa (MENA) was the least peaceful region. Iceland remains the most peaceful country in the world and Afghanistan the least. Since 2014, the average level of peace in countries has declined, influenced by a number of factors, including most recently the COVID-19 pandemic and the war between Russia and Ukraine that began in February 2022. The pandemic plunged many countries into economic and political crisis, which created tensions and insecurities that manifested themselves primarily in political and social unrest (see IMAD, 2022e; IEP, 2021, 2022a). The war and international sanctions against Russia, which have put additional pressure on food and energy prices and disrupted supply chains, could lead to a deterioration of food security,[3] increases in militarisation and military expenditures in Europe, and greater likelihood of political instability and violent demonstrations (IEP, 2022a).

Table: Global Peace Index, Slovenia

	2010	2012	2014	2015	2016	2017	2018	2019	2020	2021	2022	SDS 2030 target
Ranking among 163 countries of the world												To be ranked among the top 10 countries in the world and the top 5 in the EU.
Global Peace Index	3	6	9	7	7	6	7	6	7	4	7	
Score												
Global Peace Index	1.347	1.386	1.370	1.354	1.321	1.313	1.330	1.293	1.312	1.295	1.316	
Militarisation	1.18	1.43	1.40	1.37	1.25	1.18	1.26	1.18	1.17	1.13	1.13	
Societal security and safety	1.48	1.42	1.41	1.39	1.37	1.39	1.39	1.35	1.41	1.41	1.41	
Domestic and international conflict	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.40	1.40	1.40	1.40	

Source: IEP (2022b). Note: Scores range from 1 to 5, with a lower score being better.

Figure: Global Peace Index 2022, EU Member States



Source: IEP (2022b). Note: Data for 25 EU Member States (data for Malta and Luxembourg not available); scores range from 1 to 5, with a lower score being better

[1] The Global Peace Index, which is produced each year in cooperation with the Economist Intelligence Unit (EIU), evaluates countries according to their level of peacefulness. It includes 23 qualitative and quantitative indicators on a scale from 1 to 5, grouped into three thematic domains: militarisation (6 indicators), societal safety and security (11 indicators), and ongoing domestic and international conflict (6 indicators). The calculation of the index for 2022 includes data from 2015 to March 2022. For more about the methodology, see IEP (2022a).

[2] The indicator falls under the area of societal safety and security. According to Eurostat (2023) data on the number of police officers per 100,000 inhabitants, Slovenia also ranked in the bottom half of EU Member States in 2020 (the latest available data).

[3] Food insecurity has increased, particularly in sub-Saharan Africa, South Asia, and the Middle East and North Africa.

Expenditure on official development assistance 5.8

In 2021, expenditure on official development assistance remained significantly below international commitments.[1] Official development assistance is defined as aid provided by advanced countries in support of sustainable development in developing countries. Slovenia allocated EUR 98.25 million for development assistance, 23% more than in 2020, thus increasing the share of gross national income (GNI) dedicated for this purpose, but this remained significantly below the EU average. Expenditure on official development assistance (0.19% of GNI) falls considerably short of international commitments, according to which Slovenia should strive to increase the share of GNI for this purpose to 0.33% by 2030.

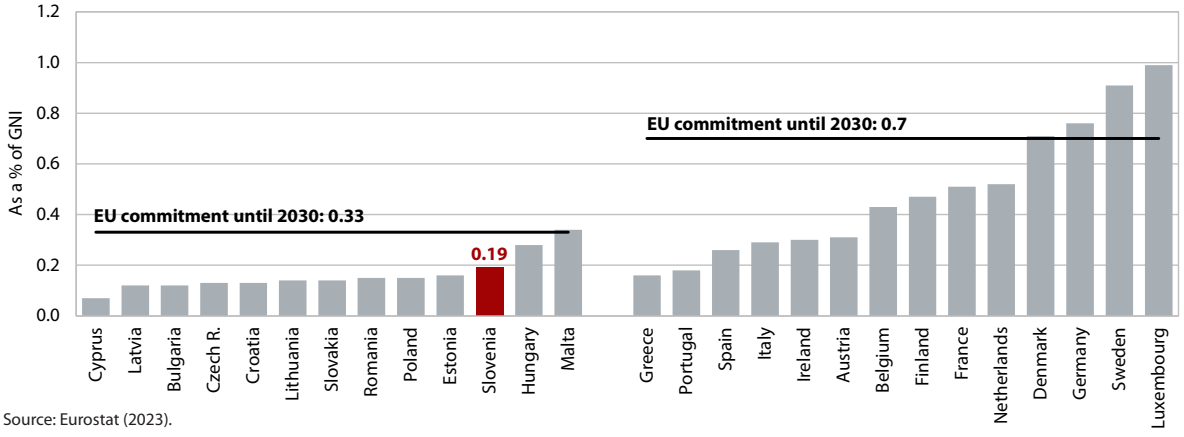
The structure of assistance in 2020 and 2021 was affected by the COVID-19 pandemic. Development assistance is the sum of multilateral assistance (funding provided for the regular development activities of international organisations) and bilateral assistance.[2] To help partner countries cope with the COVID-19 crisis, funding for bilateral humanitarian aid was significantly increased in 2020 (by 30%). Most of this aid was intended for emergency relief and was mainly financed by earmarked contributions to international organisations (MZZ, 2022d). Humanitarian aid funding also increased in 2021 (by 36%); contributions to help countries cope with the pandemic mainly included vaccine donations. This was reflected in a significant increase in the assistance focused on specific projects (by 657%), which accounted for the second largest share of bilateral aid (36%). Funds for paying tuition fees and scholarships (39%), which have been the main focus of Slovenia's funding in recent years (with an increase of only 4% in 2021), again accounted for the largest share. Funds for raising awareness of the importance of international development cooperation were reduced, and the cost of caring for refugees and migrants was cut again. In 2021, Slovenia again dedicated most of its bilateral aid[3] to Western Balkan countries, 55% in total or EUR 20.04 million, which was more than ever before. Most of this aid was again allocated to quality education projects (funds for paying tuition fees and scholarships). Expenditure on multilateral assistance, most of which (83%) is dedicated to EU development cooperation programmes, increased for the fourth year in a row. However, the increase in funding for official development assistance in 2021 was driven to a great extent by growth in bilateral development aid, mainly in the form of COVID-19 vaccine donations (MZEZ, 2023c).

Table: Official development assistance as a share of GNI, in %

	2005	2008	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Slovenia	0.11	0.13	0.13	0.13	0.13	0.13	0.12	0.15	0.19	0.16	0.16	0.17	0.17	0.19
EU	0.41	0.40	0.41	0.42	0.40	0.38	0.38	0.42	0.49	0.47	0.43	0.41	0.50	0.49

Source: Eurostat (2023).

Figure: Official development assistance as a % of GNI in the EU Member States in 2021



Source: Eurostat (2023).

[1] The target for Member States that joined the EU before 2002 is to spend 0.7% of GNI on official development assistance, while the target for Member States that joined the EU after 2002 is 0.33% of GNI.

[2] In 2021, EUR 38.96 million was allocated for bilateral assistance. Bilateral assistance is the sum of disposable bilateral assistance (development aid in the narrow sense (EUR 32.18 million), humanitarian aid (EUR 4.02 million) and administrative costs (EUR 2.75 million). After falling in 2020, both administrative costs and available bilateral aid increased in 2021.

[3] The priority development regions being (i) the Western Balkans (Montenegro, North Macedonia, Bosnia and Herzegovina, Serbia, Kosovo, and Albania), (ii) the European neighbourhood and (iii) Sub-Saharan Africa.

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Abbreviations

AIC	actual individual consumption
AJPES	Agency for Public Legal Records and Related Services
ALP	active labour policy
ARSO	Slovenian Environment Agency
ARRS	Slovenian Research Agency
AVP	Slovenian Traffic Safety Agency
BAMC	Bank Assets Management Company
BAMI	basic amount of minimum income
BE	Belgium
BIOEAST	Central and Eastern European countries
BoS	Bank of Slovenia
CAF	Common Assessment Framework
CAP	Common Agricultural Policy
CCIS	Chamber of Commerce and Industry of Slovenia
Cedefop	European Centre for the Development of Vocational Training
CEE 4	Czech Republic, Hungary, Poland and Slovakia
CEPEJ	European Commission for the Efficiency of Justice
CER	Centre of Energy Efficient Solutions
CEUVIZ	Central Register of Participants in Education
CH4	methane
CHI	complementary health insurance
CJMMK	Public Opinion and Mass Communications Research Centre
CKZ	Health promotion centre
CLARIN	Slovene national consortium in the European research infrastructure CLARIN
CMEPIUS	Centre of the Republic of Slovenia for Mobility and European Educational and Training Programmes
CO2	carbon dioxide
CoE	Council of Europe
COP26	26th Conference of the Parties to the United Nations Framework Convention on Climate Change
CP	Cohesion policy
CPC	Commission for the Prevention of Corruption
CPI	Consumer Price Index
CPI	Institute of the Republic of Slovenia for Vocational Education and Training
CŠOD	Curricular and Extracurricular Activities Centre
CZ	Czech Republic
CzK	Centre for Creativity
DARS	Motorway Company of the Republic of Slovenia
DESI	Digital Economy and Society Index
DG SANTE	The Directorate-General for Health and Food Safety
DIH	Digital innovation hub Slovenia
DK	Denmark

DRSI	Slovenian Infrastructure Agency
DVK	State Election Commission
EACEA	European Education and Culture Executive Agency
EAPN	European Anti-Poverty Network
EBITDA	earnings before interest, taxes, depreciation and amortisation
EC	European Commission
ECB	European Central Bank
ECDC	European Centre for Disease Prevention and Control
ECHR	European Court of Human Rights
EE	Estonia
EEA	European Environment Agency
EEAS	European External Action Service
EFB	European Fiscal Board
EFQM	European Foundation for Quality Management
EHIS	European Health Interview Survey
EIB	European Investment Bank
EDI	equivalised disposable income
EII	European Innovation Index
EIPA	European Institute for Public Administration
EJQI	European Job Quality Index
EMU	Economic and Monetary Union
EPO	European Patent Office
EPSR	European Pillar of Social Rights
ERI	Educational Research Institute
ESC	Economic and Social Council
ESG	environmental, social and governance
ESI	economic sentiment indicator
ESM	European Stability Mechanism
ESPON	European Spatial Planning Observation Network
ESS	Employment Service of Slovenia
ESSPROS	European System of integrated Social PROtection Statistics
ET 2020	Education and Training 2020
ETS	Emissions Trading System
EU	European Union
EUA	European University Association
EUIPO	European Union Intellectual Property Office
EUR	euro
EUROAC	The Academic Profession in Europe: Responses to Societal Challenges
EUROSTAT	The Statistical Office of the European Union
EUSAIR	European Union Strategy for the Adriatic and Ionian Region
eVŠ	web portal for higher education
FC	Fiscal council
FDA	functionally derelict areas

FDI	foreign direct investment
FEAD	Fund for European Aid to the Most Deprived
FEANTSA	European Federation of National Organisations Working with the Homeless
FF UL	Faculty of Arts, University of Ljubljana
FI	Finland
FRA	European Union agency for fundamental rights
FURS	Financial Administration of the Republic of Slovenia
GDP	gross domestic product
GDPR	General Data Protection Regulation
GERD	gross domestic expenditure on R&D
GEI	Gender Equality Index
GEM	Global Entrepreneurship Monitor
GFN	Global Footprint Network
Gg	gigagram (1,000 tonnes)
GHG	greenhouse gases
GNP	gross national product
GRECO	The Group of States against Corruption
GURS	Surveying and Mapping Authority of the Republic of Slovenia
GVA	gross value added
ha	hectare
HBS	household budget survey
HBSC	health behaviour in school-aged children
HD	housing deprivation
HICP	Harmonised Index of Consumer Prices
HIIS	Health Insurance Institute of Slovenia
HPC	high processing computing
HU	Hungary
IAEs	innovation-active enterprises
ICT	information and communication technology
ICTWSS	Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts
IDEA	International Institute for Democracy and Electoral Assistance
ITR	implicit tax rate (on labour, capital, consumption and energy)
IE	Ireland
IEE	innovative environment entities
IER	Institute for Economic Research
IIBA	International Institute of Business Analysis
IEI	Innovation Efficiency Index
IJS	Jožef Stefan Institute
IJS-CEU	Jožef Stefan Institute, Energy Efficiency Centre
IMAD	Institute of Macroeconomic Analysis and Development
IMD	Institute for Management Development
IMF	International Monetary Fund
IRSSV	Social Protection Institute of the Republic of Slovenia

ISCO	International Standard Classification of Occupations
ISSP	The International Social Survey Programme
IZS	Slovenian Chamber of Engineers
JAK	Slovenian Book Agency
JSKD	Republic of Slovenia Public Fund for Cultural Activities
JTF	Just Transition Fund
KCDM	Competence Centre for Design Management
KIS	Agricultural Institute of Slovenia
KONS	Platform for contemporary investigative art
LE	life expectancy
LFS	Labour Force Survey
LLL	lifelong learning
LPIO	annual programme for adult education
LTC	long-term care
MDDSZ	Ministry of Labour, Family, Social Affairs and Equal Opportunities
MF	Ministry of Finance
MFF	multiannual financial framework
MGRT	Ministry of Economic Development and Technology
MGTŠ	Ministry of Education, Science and Sport
MIRA	National Mental Health Programme
MIZŠ	Ministry of Education, Science and Sport
MJU	Ministry of Public Administration
MK	Ministry of Culture
MKGP	Ministry of Agriculture, Forestry and Food
MNZ	Ministry of the Interior
MO	Ministry of Defence
MOP	Ministry of the Environment and Spatial Planning
MOPE	Ministry of the Environment, Spatial Planning and Energy
MP	Ministry of Justice
MRA	Master Restructuring Agreement
MSD	material and social deprivation
MTO	medium-term objective
MVI	Ministry of Education
MVZI	Ministry of Higher Education, Science and Innovation
MzI	Ministry of Infrastructure
MZEZ	Ministry of Foreign and European Affairs
MZZ	Ministry of Foreign Affairs
N2O	nitrous oxide
NA	National Assembly
NATO	North Atlantic Treaty Organization
NECP	National Energy and Climate Plan
NEET	not in employment, education or training
NEIG	non-energy industrial goods

NIJZ	National Institute of Public Health
NKMB	Nova kreditna banka Maribor
NLB	Nova Ljubljanska banka
NLO	nobody left outside
NP fertilisers	mineral fertilisers containing nitrogen and phosphorus
NPK fertilisers	mineral fertilisers containing nitrogen, phosphorus and potassium
NPVO	National programme for environmental protection
NUK	National and University Library
NUTS classification	Nomenclature of Territorial Units for Statistics
OECD	Organisation for Economic Cooperation and Development
OECD/INFE	OEDC's International Network on Financial Education
OHIM	Office for Harmonization in the Internal Market
OP ETID	Operational Programme for Environmental and Transport Infrastructure Development
OP GHG	Operational Programme for Reducing Greenhouse Gas Emissions
OSHA	Occupational Safety and Health Administration
PA	personal assistance
PIAAC	OECD's Programme for the International Assessment of Adult Competences
PISA	Programme for International Student Assessment
PL	Poland
PM	particulate matter
PMR	product market regulation
p.p.	percentage point
PPP	purchasing power parity
PPS	purchasing power standard
PT	policy target
PT	public tender
RCH	residential care home
REACT-EU	Recovery Assistance for Cohesion and the Territories of Europe
REER ULC	real effective exchange rate based on unit labour cost
REER PPI	real effective exchange rate based on producer price index
ReNPVO20–30	National Environment Protection Programme with programmes of measures until 2030
REPowerEU	plan for saving energy, producing clean energy, and diversifying our energy supplies
RES	renewable energy sources
RGZC	Celje Regional Chamber of Commerce
RIA	regulatory impact assessment
RISS	Research and Innovation Strategy of Slovenia
ROA	return on assets
ROE	return on equity
R&D	research and development activity
RRP	Recovery and Resilience Plan
RS	Republic of Slovenia
RULC	real unit labour costs
S4	Slovenian Smart Specialisation Strategy

SDS	Slovenian Development Strategy
SE	Sweden
SEF	Slovene Enterprise Fund
SES	structure of earnings survey
SFC	Slovenian Film Centre
SHA	System of Health Accounts
SHARE	Survey on health, ageing and retirement in Europe
SHD	severe housing deprivation
SI	Slovenia
SIAE	Slovenian Institute for Adult Education
SID	Slovenian Export Corporation
SiDG	Slovenski državni gozdovi, d. o. o., company for the management of state-owned forests
SILC	Survey on income and living conditions
SI-PASS	single point for verifying identity of various entities (citizens, business entities, public officials) and electronic signature of applications and other documents
SIPO	Slovenian Intellectual Property Office
SJM	Slovenian Public Opinion
SK	Slovakia
SKD	Standard Classification of Activities
SLOGI	Slovenian theatre institute
SMEs	small and medium-sized enterprises
SPIRIT	Public Agency for Entrepreneurship, Internationalisation, Foreign Investments and Technology
SPOT	Slovenian Business Point
SRDAP	Statistical Register of Employment
SRIPs	Strategic Research and Innovation Partnerships
SRIP-KG	Strategic Research and Innovation Partnerships – Networks for the transition to a circular economy
SSH	Slovenian Sovereign Holding
SVRK	Government Office for Development and European Cohesion Policy
SURE	Support to mitigate Unemployment Risks in an Emergency
SURS	Statistical Office of the Republic of Slovenia
TA	territorial agenda
TALIS	Teaching and Learning Survey
TAXUD	Taxation and Customs Union Directorate
TEA	total early-stage entrepreneurial activity
TEŠ	Šoštanj Thermal Power Plant
TFP	total factor productivity
tkm	tonne-kilometre
UAA	utilised agricultural area
UKC	University Medical Centre
UKOM	Communication Office of the Government of the Republic of Slovenia
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNFCCC	United Nations Framework Convention on Climate Change
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs

UNSC	United Nations Security Council
URSZR	Administration of the Republic of Slovenia for Civil Protection and Relief
USD	US Dollar
VAT	value added tax
WEF	World Economic Forum
WHO	World Health Organization
WIPO	World Intellectual Property Organization
ZaPIS	Improvement of Health Literacy in Slovenia
ZGS	Slovenia Forest Service
ZJF	Public Finance Act
ZDOsk	Long Term Care Act
ZOA	Personal Assistance Act
ZPIZ	Pension and Disability Insurance Institute of Slovenia
ZRSŠ	National Education Institute
ZSSS	Association of Free Trade Unions of Slovenia
ZSV	Social Assistance Act
ZUreP-3	Spatial Management Act
ZZVZZ	Health Care and Health Insurance Act

Abbreviations of the Standard Classification of Activities (NACE): A – Agriculture, 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, G – Wholesale and retail trade, repair of motor vehicles and motorcycles, H – Transportation and storage, I – Accommodation and food service activities, J – Information and communication, K – Financial and insurance activities, L – Real estate activities, M – Professional, scientific and technical activities, N – Administrative and support service activities, O – Public administration, P – Education, Q – Human health and social work activities, R – Arts, entertainment and recreation, S – Other service activities, T – Activities of households and U – Activities of extraterritorial organisations and bodies.

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