

# development report 2021



## **Development Report 2021 (Poročilo o razvoju 2021)**

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## Key findings and recommendations

### ***Many positive shifts after the global crisis***

**After the global financial crisis, Slovenia returned to a path of convergence with more developed Member States and achieved favourable values of social inclusion indicators; the efficiency of resource and energy consumption was steadily rising.**

In the period of economic upturn (2014–2019), Slovenia gradually narrowed its gap in economic development with the EU average and employment reached record highs. This was reflected in higher household income and a significant improvement in the state of public finances after a deterioration during the global financial crisis. Social and societal development was also becoming more inclusive with stronger economic growth and favourable labour market conditions. In 2019, the rate of the risk of social exclusion, which is low by international standards, reached its lowest level ever and achieved – as income inequality already did in 2017 – the SDS 2030 target. The participation of young people in education remained high and 15-year-olds reached above-average results in mathematical and scientific literacy according to the 2015 and 2018 PISA surveys. Slovenia's natural environment remained well preserved, on average, and the efficiency of resource and energy consumption was gradually improving.

### ***The strong impact of the COVID-19 epidemic on the economy and population***

**In 2020, the COVID-19 epidemic had a strong impact on the Slovenian economy and significantly affected quality of life; at the same time, it also brought certain opportunities.**

The crisis caused by the COVID-19 epidemic interrupted several years of economic growth and favourable labour market developments. Its impact on the economy and the population was markedly mitigated by government measures. They prevented a decline in household disposable income and alleviated cost pressures in companies, thus helping to preserve economic potential. However, owing to a sharp contraction of economic activity and the government financing of measures to mitigate the consequences of the epidemic, the public finance situation notably deteriorated. The crisis has had a much larger impact on the non-tradable part of the economy, which is mainly due to the nature of the containment measures. For many areas, comprehensive data for 2020 are not yet available. The overall impact of the epidemic on Slovenia's development and well-being of the population in 2020 is therefore not yet known and will also depend on the duration of the epidemic. However, based on the indicators already available and due to an uneven impact of the COVID-19 crisis on different groups of the population and activities, we can expect a deterioration in some indicators, which have so far been mostly favourable (for example, health, gender inequalities, inequalities between regions, generations, etc.). The consequences of the temporary deterioration in access to and quality of education during the epidemic are uncertain as well. We also do not yet have adequate data to assess the environmental dimensions of the epidemic. Owing to lower economic activity and population mobility, the environmental burden could temporarily decrease, but this is not expected in the long run without appropriate action. The epidemic, however, has also brought certain opportunities, arising for example from the shortening of global value chains and the introduction of remote work. Moreover, with the support of appropriate economic policies, the introduction of digital solutions, innovation and new business models could also accelerate significantly under the changed conditions, as well as the necessary changes in health and long-term care.

### ***Some development challenges have deepened***

**Unresolved development challenges further increased Slovenia's vulnerability during the epidemic, and some of them tightened further.**

In recent years, economic convergence has been based only to a small extent on productivity gains. This is closely linked to insufficient investment, particularly in various forms of intangible capital (R&D, ICT, training of workers), which is an important driver of productivity in modern economies. In the case of a prolonged negative impact on corporate investment activity, the COVID-19 crisis could also significantly worsen the prospects for medium-term productivity growth. In the period of recovery, it is thus necessary to strengthen investment activity, especially in the direction of the digital and green transformation of the economy. In the years before the epidemic, it was difficult to find workers with appropriate knowledge and skills due to demographic change and labour market mismatches. With the epidemic, the need for certain workers has declined temporarily, but staff shortages in health and social work, which were already pronounced before

the epidemic, have worsened significantly. However, ensuring the so-called skills and competences of the future (for example in the context of the digital and green transformation and population ageing) is becoming an ever greater challenge. The labour market is also marked by a high exposure of young people to temporary forms of employment, because of which their unemployment increased at an above-average rate in 2020. But especially the accumulated problems of the social protection systems have intensified during the epidemic, particularly those related to the insufficient adaptation of the system of long-term care to demographic change, the insufficient capacity of the health system and long waiting times. Demographic trends and technological changes that are affecting the labour market will also rapidly exacerbate the problem of financing social protection systems. New projections under the no-policy change scenario show an even larger increase in age-related expenditure in 2019–2070 than previous projections, particularly due to pension expenditure. From the perspective of the environmental dimension of sustainable development, the main problems are the too slow transition to a circular economy, high GHG emissions from transport, multi-year stagnation in the use of renewable energy sources and insufficiently sustainable land use.

### ***Recommendations for the development policy***

**The measures for the recovery should be combined with structural reforms for greater resilience of the economy and society to shocks and more sustainable development in the long term.** The short-term priorities of the economic policy remain significantly related to preventing the spread of the COVID-19 epidemic and mitigating its socio-economic consequences. As measures to mitigate the current consequences of the crisis continue to play an important role in sustaining economic and social potential, their withdrawal has to be gradual and well planned. A premature removal of measures when the situation returns to normal could be detrimental to recovery. However, if measures are insufficiently targeted and kept in place for too long, they could worsen allocative efficiency. At the same time, measures for the restructuring and modernisation of the economy should also be designed and implemented as soon as possible, which should to the greatest extent possible be focused on exploiting new opportunities and accelerating the transition to a highly productive, low-carbon and circular economy. A comprehensive approach combining the measures for recovery with structural reforms would make the economy and society more resilient to future shocks and improve the long-term sustainability of development to enhance the well-being of the population, which is the underlying objective of the Slovenian Development Strategy. The measures should be aimed primarily at

- **accelerating productivity growth** by (i) strengthening R&D activity and innovation by placing a stronger emphasis on disruptive innovation, (ii) accelerating digital transformation by introducing new business models, servitisation and shifting to smart factories and other most highly advanced technologies, and (iii) increasing investment in human resources and the development of the 'workforce of the future', including by retraining workers to accelerate their transition to high-quality jobs with a higher value added and lower carbon footprint;
- **inclusive social development and intergenerational solidarity** by (i) establishing appropriate systemic regulation of financing and increasing the capacity of the system of long-term care (particularly care at home) and health care, (ii) undertaking a comprehensive pension reform to ensure the fiscal sustainability of the pension system and adequate pensions, (iii) ensuring a sufficient workforce, also with the active inclusion of immigrants in social and societal life, (iv) strengthening lifelong learning and adapting workplaces for older people to remain active longer and better integrate into society, (v) strengthening the culture of dialogue and the processes of democratic co-decision, communication and consultation among all relevant stakeholders, including civil society and (vi) promoting healthy lifestyles;
- **accelerated transition to a low-carbon circular economy** by (i) appropriately promoting sustainable mobility and upgrading the related infrastructure, also by using state-of-the-art technological solutions, (ii) introducing new low-carbon circular business models, including more efficient waste management, and (iii) significantly increasing the capacities for the greater use of renewable energy sources, particularly through the more efficient siting of projects;

- **strengthening the developmental role of the government and its institutions** by (i) improving the strategic governance of public institutions for early identification and the coordinated and effective dealing with developmental challenges, (ii) improving the legislative and business environment and (iii) restructuring general government revenue and expenditure by strengthening their developmental component.

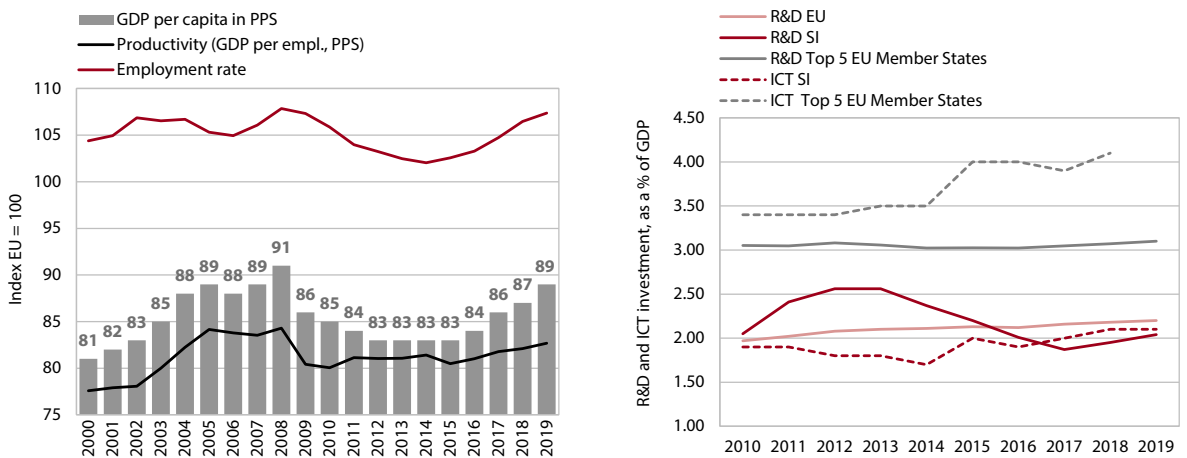
To this end, it is particularly important to make best use of the European Commission's funds, increasing particularly the share of available resources for the strengthening of R&D and innovation, a faster digital transformation and an efficient transition to a low-carbon circular economy.

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

**A highly productive economy, which creates value added for all**

In the period of economic growth (2014–2019), Slovenia slightly reduced its still wide development gap, but to further catch up with the EU average, it will be essential to accelerate productivity growth. GDP per capita as a measure of economic development amounted to 89% of the EU average in 2019, which is still 2 p.p. less than at the beginning of the global financial crisis in 2008. A faster convergence after the crisis has mainly been limited by productivity growth, which, because of low investment (both private and public), also remained modest in the period of economic boom. In terms of achieving the strategic orientations, the slow progress in investment in various forms of intangible capital (R&D, ICT, on-the job training), which is the key driver of productivity in modern economies, stands out in particular. In 2020, several years of economic growth were interrupted by the COVID-19 epidemic. Its consequences for the economy have been significantly mitigated by government measures, which reduced cost pressures in companies and maintained economic potential. Nevertheless, in the case of a prolonged negative impact on corporate investment activity, the COVID-19 crisis could significantly deteriorate the prospects for medium-term productivity growth. Government investment is otherwise rising in the short term and it will be additionally boosted by EU funds. However, because of the sharp contraction of economic activity and measures to mitigate the consequences of the epidemic, the public finance situation also notably deteriorated in 2020, meaning that it will not be possible to maintain such levels of government investment in the medium term, especially given the necessary increase in other development expenditure. In addition to measures to mitigate the current impact of the crisis, which play a significant role in sustaining economic potential, efforts should thus also be focused on enhancing investment activity of the economy. In view of the expected long-term positive impacts on productivity growth and development, it is important to increase particularly the share of available EU funds for (i) strengthening R&D activity and innovation, including by placing a greater emphasis on disruptive innovation, (ii) accelerating digital transformation by introducing new business models, servitisation and shifting to smart factories and other most highly advanced technologies, and (iii) an effective transition to a low-carbon circular economy.

**Figure 1: A faster convergence in development is limited by weak productivity growth; R&D and ICT investment, an important driver of productivity growth in modern economies, is low**

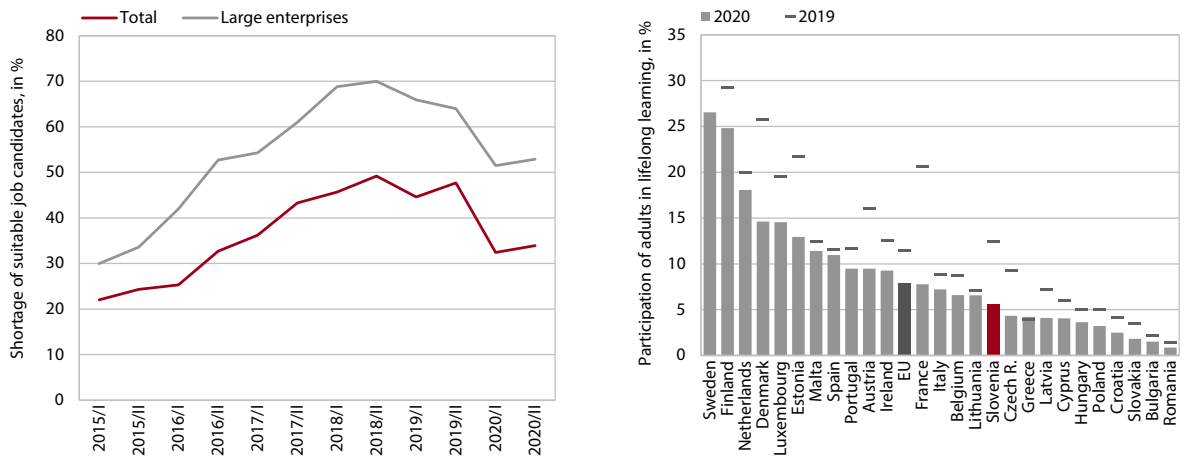


Source: Eurostat, 2020, 2021; calculations by IMAD.

Lifelong learning

Despite the relatively well-educated population in Slovenia and the high level of skills and knowledge among young people, the development of appropriate knowledge and skills is an increasing challenge in light of demographic change and the desired transition to a highly competitive, digital and green economy. The participation of young people in education has been high for many years, which is reflected in the improving educational structure of adults. Mathematical and scientific literacy of young people is also high according to the 2018 PISA survey. In 2020, however, the national education system was challenged by the epidemic, so that thorough reflection is needed on how to effectively address possible gaps in children’s knowledge and skills and other impacts of the epidemic on education. Despite the relatively favourable overall picture, not enough has been done in recent years to address knowledge and skills mismatches on the labour market. A multi-year decline in the participation of adults and employed people in lifelong learning stands out in particular. The structure of enrolments in tertiary education is changing towards increased enrolment in science and technology and health and social work, but due to smaller generations of students, the supply of this staff still falls short of demand. Amid unfavourable demographic trends, the development of appropriate knowledge and skills for young people and adults to meet not only the current but, especially, the future needs of society and the economy (due to population ageing, the urgency of the green and digital transformation, etc.) therefore remains a major challenge. This requires increased investment in human resources and in the development of a ‘workforce of the future’, also by retraining workers and strengthening their competences to accelerate their transition into high-quality jobs with a higher value added and lower carbon footprint. This could also be achieved by a system that anticipates medium-term knowledge and skills demand, which is only in the stage of being established in Slovenia.

Figure 2: Significant shortage of workers with appropriate skills in the period of economic boom and low participation of adults in lifelong learning



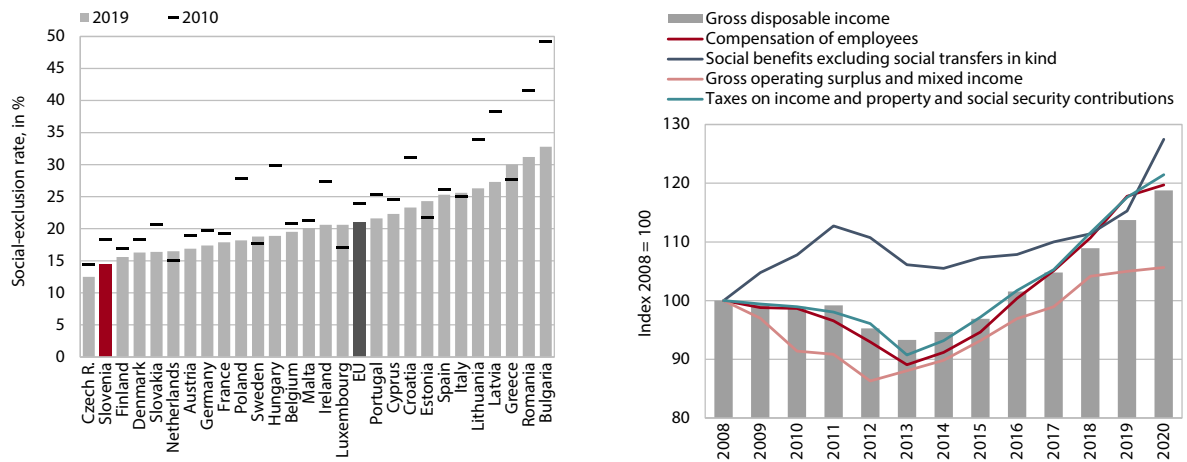
Source: ESS, 2020 a and b, 2019 a and b, 2018 a and b, 2017 a and b, 2016 a and b and 2015 (left); Eurostat, 2021 (right). Note: The participation of adults (aged 25-64) in lifelong learning in the second quarter of the year.

An inclusive, healthy, safe and responsible society

In 2014–2019, Slovenia’s development was generally inclusive, with some challenges in individual population groups, while in 2020 the COVID-19 epidemic significantly affected the quality of life and society, tightening the long-term challenges of social protection systems in particular. With stronger economic growth and favourable labour market developments, social and societal development was also becoming more inclusive in 2014–2019. In 2019, the social exclusion rate was the lowest so far and – as income inequality already since 2017 – in line with the SDS 2030 target. Life satisfaction and some health dimensions improved as well. Despite positive economic and social developments, certain social groups continued to face various challenges: labour market segmentation remained a problem, particularly among young people, the at-risk-of-poverty rate of older women was still high, and health and gender inequalities deepened in some areas. The COVID-19 epidemic significantly affected quality of life

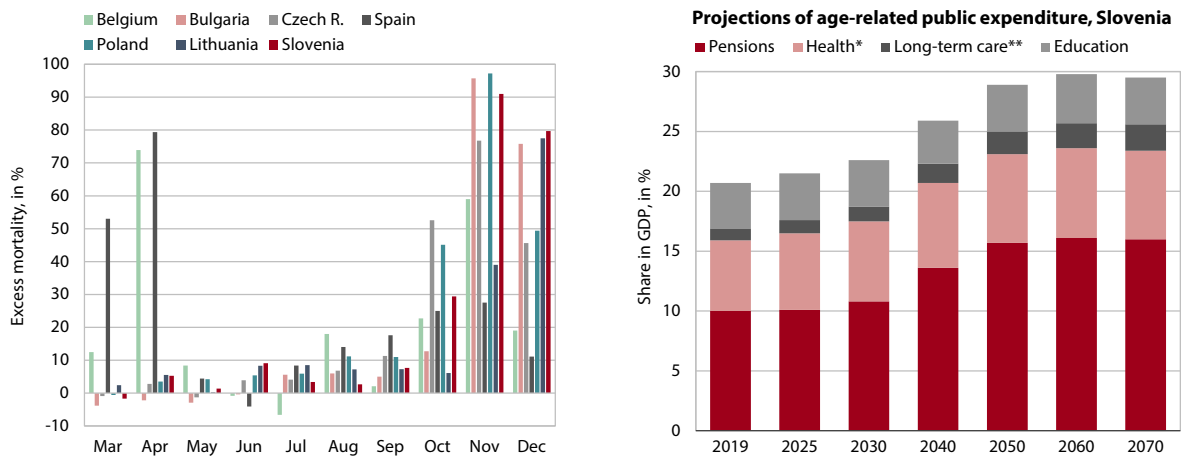
at the beginning of 2020. We expect a negative impact on health indicators. Moreover, the epidemic also interrupted several years of favourable developments on the labour market, although government measures significantly mitigated the fall in employment and prevented, on average, a decline in household disposable income. Above all, the epidemic significantly aggravated the already existing and long-term problems of social protection systems, related particularly to the insufficient adaptation of the long-term care system to demographic change, staff shortages in the health system and long waiting times. Due to demographic and technological changes that are affecting the labour market, the problem of financing social protection systems will also be rapidly exacerbated in the future. The impact of the epidemic has also pointed to a number of other adaptations and changes faced by social sub-systems due to the new reality (e.g. remote schooling and work, balancing work and private life). To prevent longer-term negative impacts on the well-being of the population while taking advantage of all opportunities, it is necessary to quickly address all health, social and societal challenges caused or deepened by the epidemic with comprehensive and targeted measures.

**Figure 3: The social exclusion rate before the epidemic was low; in 2020, government measures prevented a fall in disposable income amid a sharp contraction of economic activity due to the epidemic**



Source: Eurostat, 2021; SURS, 2021 (left); SURS, 2021; calculations by IMAD (right).

**Figure 4: The epidemic caused high excess mortality in the second wave and tightened the long-term challenges of social protection systems related to demographic change**



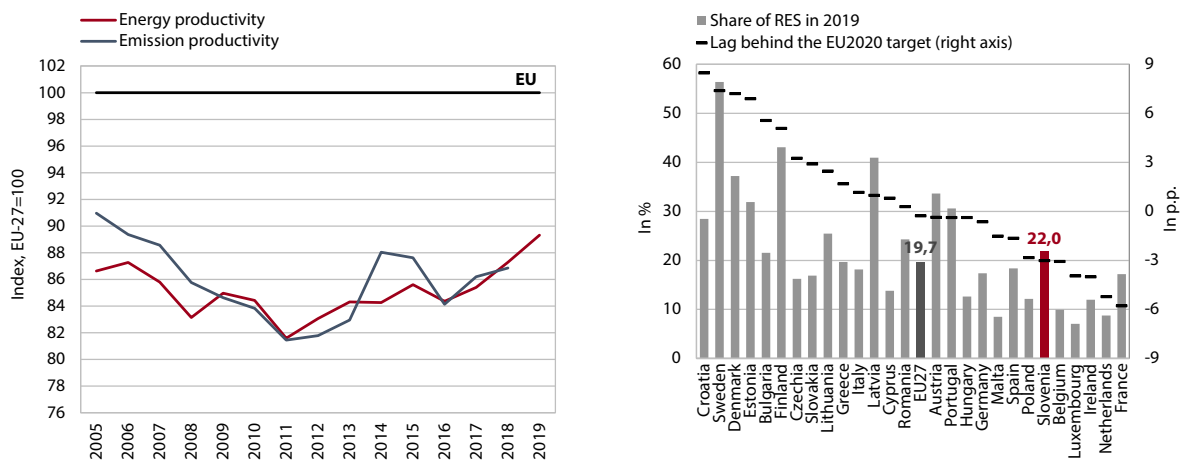
Source: Eurostat, 2021 (left); EC, 2021 (right). Note: Excess mortality is the ratio between the number of deaths from all causes in a certain period and the average number of deaths in the same period of the last five years. The graph shows EU Member States where excess mortality was above 60% in at least one month. Excess mortality is calculated on the basis of data on deaths which are internationally and methodologically harmonised. \* Public expenditure on health: according to SHA methodology but excluding expenditure on LTC and including expenditure on investments according to COFOG methodology. \*\* Public LTC expenditure: health component and social component according to SHA methodology.



**A well-preserved, healthy natural environment**

**Slovenia’s natural environment is well preserved on average, but the transition to a low-carbon circular economy needs to be greatly accelerated.** With a high proportion of protected areas, large forest cover and moderate agricultural intensity, the natural environment in Slovenia is on average relatively well preserved. Two problems that nevertheless stand out and where only modest progress has been made in recent years are poor air quality due to relatively high particle concentrations and unsustainable land use related to poorly utilised or abandoned areas. On most indicators that monitor the relationship between economic development and the consumption of natural resources and energy, waste and GHG emissions and are also used as a measure of the transition to a low-carbon circular economy, Slovenia still lags significantly behind the EU average and particularly behind the best-performing Member States. Resource and energy consumption and GHG emissions, which increased in the first years of recovery after the global financial crisis, have stabilised in the last few years. This has been reflected in a somewhat faster improvement in productivity expressed as the ratio of GDP to material and energy consumption and emissions, but the gap with the EU average is still wide. Faster improvement is held back particularly by rising energy consumption in transport. This is unsustainable and has a significant negative impact on the environment. Since 2005, the share of renewable energy sources in Slovenia has been rising at the slowest pace among all Member States and is set to fall behind the EU average and the targets in a few years’ time unless radical changes are made. Before the COVID-19 epidemic, the quantity of waste was rapidly rising. Waste management was improving, but the circular material use rate nevertheless remained below the EU average. The environmental burden was eased temporarily with the COVID-19 epidemic, but in the long run this is not to be expected without appropriate measures and the more responsible behaviour of the population. It is therefore important to make good use of all available financial incentives and link the recovery and development of the economy after the epidemic with a faster transition to the agreed low-carbon circular economy.

**Figure 5: The progress in energy and emission productivity of the economy is slow; according to the share of renewable energy sources, Slovenia is among the countries that lags behind the target the most**



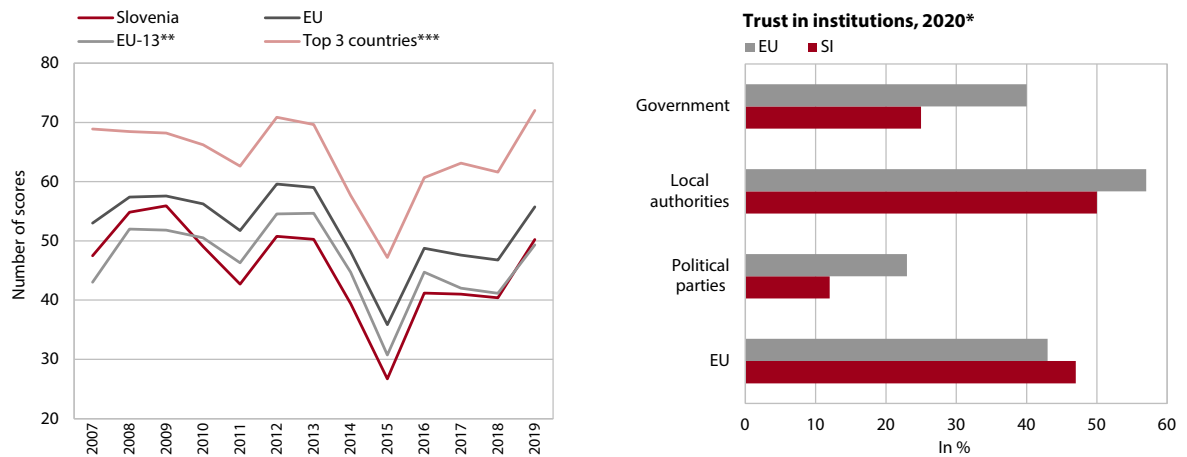
Source: Eurostat, 2021; calculations by IMAD.

**A high level of cooperation, competence and governance efficiency**

**Government efficiency has improved in individual areas in recent years; the main challenges remain further improving the efficiency of public sector governance and reducing administrative burdens.** By 2019, Slovenia had made progress in the digital transformation of public services, the introduction of quality standards in public administration bodies and reduction of administrative barriers. The efficiency of the judiciary also improved, as did the profitability of state-owned enterprises. Despite this progress, Slovenia’s institutional competitiveness has for many years been marked by inefficient public sector governance due to poor coordination among all stakeholders, as well as a relatively high perception of corruption and a still high burden of government

regulation. According to managers, the length and complexity of procedures related to public services and relatively rigid labour legislation and tax policy remain the main problems from the perspective of government efficiency in supporting the business sector. In the last few years, Slovenia has otherwise taken some measures to reduce administrative barriers and lower the tax burden on personal income and holiday allowance. In 2020, the entire public service sector was significantly affected by the COVID-19 epidemic, which further highlighted the urgency of improving the efficiency of governance and the capacity of public administration. The new situation has, at the same time, also contributed to a faster introduction of certain solutions in the field of digital transformation of public administration. One of the key conditions for successfully coping with the consequences of the epidemic and for a country's recovery and development is also citizens' trust in institutions. This decreased further during the first wave of the epidemic and remains among the lowest in the EU. The main challenges therefore remain appropriate communication with the public, increasing transparency, and improving cooperation among the key actors in the adoption, implementation and monitoring of measures. At the same time, it should be noted that Slovenia has remained one of the most peaceful and safe countries in the world, which has a positive impact on the quality of life and well-being of its inhabitants.

**Figure 6: According to managers' opinions, government efficiency has improved after the global financial crisis but remains below the EU average; trust in institutions remains low**



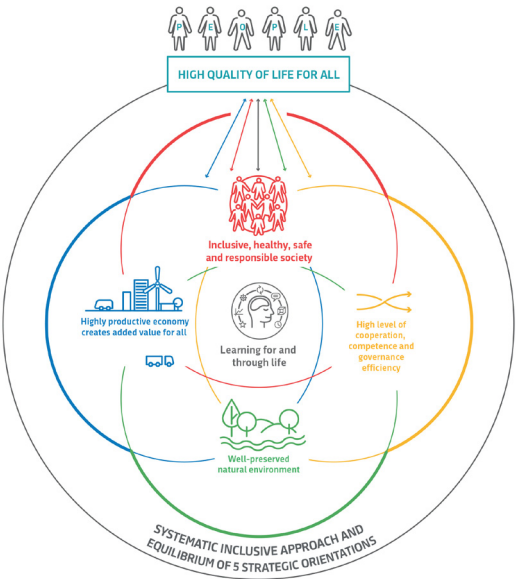
Source: IMD, 2020a (left); Eurobarometer, 2020a, 2020b (right). Note: In the indicators of a country's government efficiency according to IMD, a higher score means higher efficiency. As the IMD survey for 2020 was conducted between February and the beginning of April 2020, the impact of the epidemic on managers' opinion was taken into account to a limited extent. \* Data for 2020 refer to the summer measurement of trust. \*\* Countries that joined the EU after 2003. \*\*\* Sweden, the Netherlands, Denmark.

# Introductory remarks

**The Development Report is a document monitoring the implementation of the Slovenian Development Strategy.** 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: (i) a highly productive economy that creates value added for all, (ii) lifelong learning, (iii) an inclusive, healthy, safe and responsible society, (iv) a well-preserved natural environment, and (v) 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 (sub-chapters 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 (see Slovenian Development Strategy 2030, Figure 6). When this report was prepared, data for most indicators were available for 2019. Only for some indicators were data for 2020 also available. It was therefore not yet possible to provide a comprehensive analysis of the impacts of the COVID-19 crisis on Slovenia's development and the well-being of its population in 2020, but they are pointed out in many areas.

**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 (for example because of the specificity of content). The report uses data sources released by 31 March 2021. Due to the UK's withdrawal from the EU in 2020, we have moved to the average of 27 countries when comparing developments in Slovenia and the EU. As the EU average is also used in some numerical goals of the SDS, the value of individual goals has changed slightly. The abbreviation EU-13 still refers to the average of new Member States that joined the EU after 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).

**Figure 7: Primary objective and strategic orientations of the Slovenian Development Strategy 2030**



Source: The Slovenian Development Strategy 2030, 2017.



**1**

# A highly productive economy that generates value added for all

The COVID-19 crisis disrupted several years of economic growth and favourable labour market developments, with government measures considerably mitigating the effects of the epidemic on the economy by reducing cost pressures and preserving economic potential. Due to the significant economic downturn and measures to mitigate the effects of the epidemic, the fiscal situation also deteriorated significantly in 2020. The shock caused by the epidemic could also affect the achievement of Slovenia's medium-term strategic goal – to achieve average EU economic development by 2030 through accelerated productivity growth. Despite gradual progress after the global financial crisis, Slovenia in 2019 was still farther from average EU development than at the beginning of the crisis in 2008. Productivity growth remained modest due to low investment (both private and public) even during the economic growth (2014–2019) which followed the global financial crisis. In the light of achieving strategic guidelines, the slow progress in investing in various forms of intangible assets (research and development, ICT, employee training) stands out, which is a key factor in the productivity growth of modern economies. Therefore, in addition to measures to mitigate the current consequences of the crisis, which contribute greatly to maintaining economic potential, efforts should also be focused on raising the investment activity of the economy. In particular, it is necessary to increase the share of available EU funds for (i) strengthening research and development activity and innovation, including a stronger focus on disruptive innovation, (ii) faster digital transformation through the introduction of new business models, servitisation and the introduction of smart factories and other advanced technologies, and (iii) an effective transition to a low-carbon circular economy. In doing so, the transformation to a highly competitive, digital and green economy is crucial to support with increased investment in human resources and human resource development, including retraining of employees, which would facilitate their relocation to higher value-added and lower-carbon jobs.

## 1.1 Economic stability

### ■ Economic stability (Development Goal 5):

The aim is to secure economic stability, which is a key precondition for bridging the gap with more developed countries and improving 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:

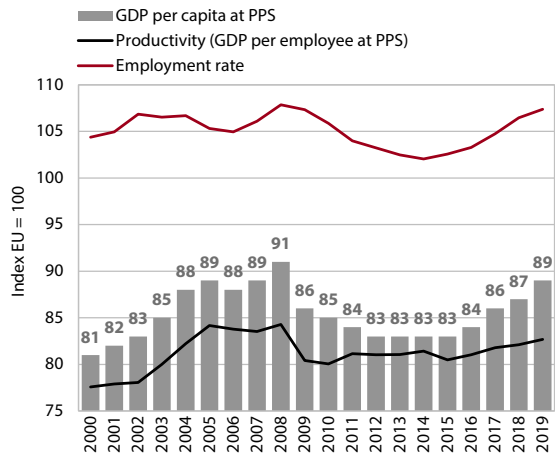
	Latest data		Target value for 2030
	Slovenia	EU average	
GDP per capita (at PPS), index EU-27 = 100	89 (2019)	100 (2019)	100
General government debt, in % GDP	80.8 (2020)	93.9 (2020 <sup>1</sup> )	60

<sup>1</sup> The data for the EU are the EC forecast for 2020 (EC, 2020a).

In 2019, Slovenia had not yet reached the relative level of economic development from its peak in 2008, and the continuation of development catching-up and increasing prosperity strongly depends on its ability to direct the exit from the COVID-19 crisis into sustainable strengthening of productivity and competitiveness of the economy. Gross domestic product per capita (at purchasing power standards) as a measure of economic development in 2019 stood at 89% of the EU average and was still 2 percentage points lower than at the beginning of the global financial crisis in 2008, when it was the highest ever. The decline compared to the EU average during the crisis (2008–2012) was followed by several years of stagnation, and the catching-up process was resumed only in 2016. It was stimulated mainly by a rapid increase in the employment rate and a smaller contribution of productivity growth. Given the demographic changes that are reducing the supply of the working age population, closing the development gap in the future will depend crucially on increasing productivity, which should therefore be much faster than in the past decade.<sup>1</sup> This will be a particularly major challenge, as the COVID-19 crisis could, in addition to a significant short-term decline in productivity, especially in the case of a long-term negative impact on corporate investment activity, also affect the medium-term outlook for accelerating growth (see Section 1.2.1). However, with the effective use of significant EU funding to help recover from the crisis, it could be an opportunity for faster and more sustainable productivity

<sup>1</sup> Despite the fact that the employment rate in Slovenia is relatively high by international standards, which is a consequence of the high employment rate of women, Slovenia has the potential to increase this component of GDP per capita, especially in older age groups (especially in the 60–64 age group).

■ Figure 8: GDP per capita at purchasing power standards and its components (productivity and employment), Slovenia



Source: Eurostat, 2020; calculations by IMAD.

growth through the transition to a green and digital economy. This would also have a positive effect on the well-being of the population through the impact of higher productivity on the income of the population and through a cleaner environment and mitigation of the consequences of climate change.

**Economic activity fell sharply in 2020, after six years of solid growth, due to the COVID-19 epidemic.** Besides measures for the stabilisation of the economy<sup>2</sup> in

<sup>2</sup> Economic policy measures were essential for stabilising the economy, particularly the rehabilitation of the banking system and gradual

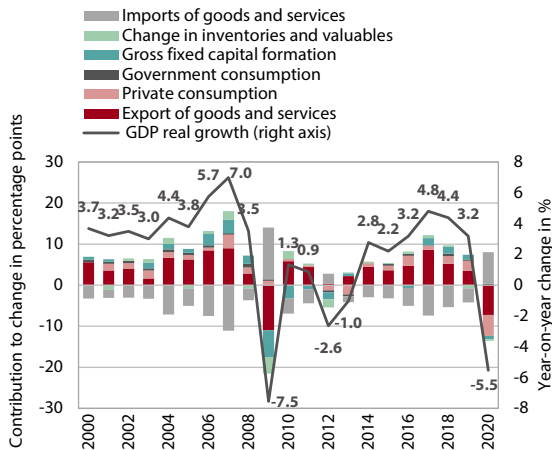
2014 after the global financial crisis, the rebound of GDP growth was driven mainly by increasing exports resulting from the recovery of demand in trading partners and by the improved competitiveness of Slovenian exporters. Besides the increasing exports, domestic consumption was also gradually boosted by favourable economic conditions in the international environment, which became an increasingly important factor of economic growth in 2014–2019. In 2019, however, it began to slow down, primarily due to lower growth in foreign demand and increased uncertainty in the international environment, which was reflected in a slowdown in exports growth and lower investment growth. Up to and including 2019, GDP growth was further supported by robust growth in private consumption, which is associated with increasing employment, stronger salary growth and favourable bank loans. In 2020, all GDP components, with the exception of government consumption, fell due to the epidemic and related restrictions. Due to restricted movement and limited supply during the quarantine period, when spending opportunities were severely curtailed, and increased uncertainty and precautionary savings, private consumption fell sharply, although, backed by government support measures, disposable income did not change significantly. As a result of negative impacts from the international environment and foreign and domestic measures to contain the spread of COVID-19, exports and imports fell significantly, especially during the first wave of the epidemic. Fall in demand and increased uncertainty led to a contraction in corporate investment, while public

a smaller drop in gross fixed capital formation, while the fall in private consumption was greater in Slovenia.

**The rapid and comprehensive response of macroeconomic policies was key to mitigating the negative economic and social impacts of the epidemic and preserving economic potential.** The COVID-19 crisis is very different from the global financial crisis that began in 2008<sup>3</sup>, not only in terms of the shock it caused, but also in terms of the economy's preparedness for the crisis and policy responses to it. The magnitude of the COVID-19-related decline and the expected pace of recovery are influenced by several factors, among which are the relatively good financial condition of the Slovenian economy before the crisis and extensive stimulus measures of economic policies,<sup>4</sup> especially fiscal aid packages<sup>5</sup> aimed at stabilising the labour market and helping businesses with liquidity problems (see boxes 1 and 2), which prevented a sharper decline in economic activity and employment. Due to the scale of the crisis, fiscal assistance measures were taken at EU level. Already in the early months of the epidemic, a fiscal package was adopted in the EU to mitigate the effects of the crisis in the short term.<sup>6</sup> Extensive assistance from the EU in the form of an extraordinary recovery instrument called "Next Generation EU" will be aimed primarily at promoting investment activity and structural changes, which in Slovenia after the financial crisis significantly strengthened as late as in 2017–2019 but remained low compared to the EU average.

**The decline in domestic demand, together with low energy prices, led to a further increase in the surplus of balance of payments on the current account and to the stagnation in consumer prices in 2020.** An increase in the surplus on the current account or the opening of the savings/investment gap (surplus of gross saving over investment) has been mainly affected by the reduction of the general government deficit, the strengthening of household saving and the deleveraging of the corporate sector since 2012 (Figure 13). In 2020, despite a sharp increase in the general government deficit, the surplus due to extensive saving by the private sector (households and non-financial corporations) increased further and was the highest

**Figure 9: Structure of GDP growth, Slovenia**



Source: SURS, 2021.

investment slightly strengthened. The smaller fall in GDP in 2020 than the EU average predominantly resulted from the foreign trade balance, which was slightly positive in Slovenia and negative in the EU average, and

fulfilment of fiscal commitments, which improved the financing conditions for the state and the economy.

<sup>3</sup> The recession that followed the financial crisis resulted from the decline in demand due to extensive deleveraging by households, countries, banks and businesses. The epidemic-related crisis, however, is affecting the economy through parallel falling demand and supply (Codogno and van den Noord, 2020).

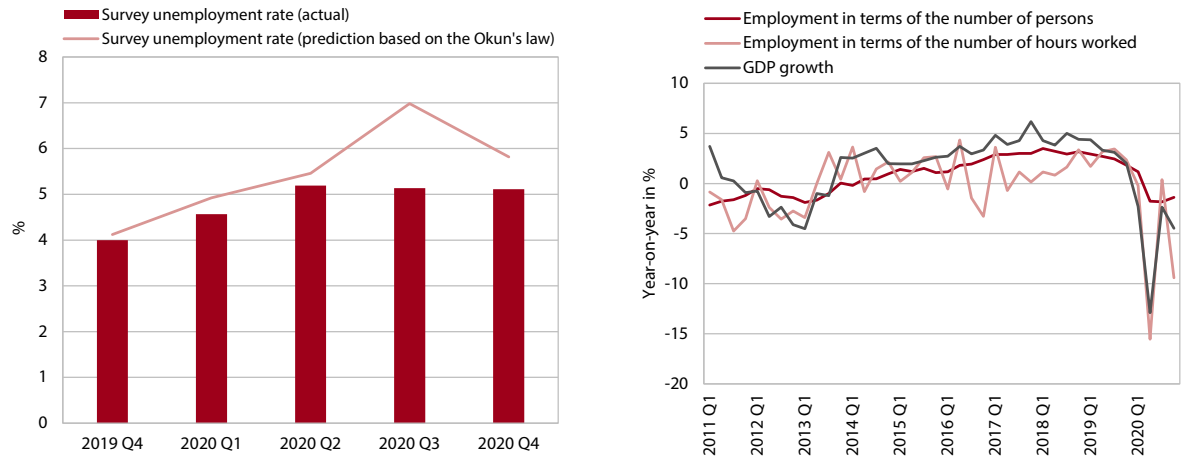
<sup>4</sup> According to IMAD estimates, in the absence of measures, the drop in activity is expected to be higher by at least 4 percentage points (IMAD, 2021).

<sup>5</sup> See Spring Forecast of Economic Trends (IMAD, 2021) for more information on anti-corona packages.

<sup>6</sup> Of this, EUR 240 billion in precautionary loans from the European Stability Mechanism (ESM), intended to support Member States in responding to the pandemic crisis, EUR 200 billion as guarantees from the European Investment Bank's (EIB) Pan-European Guarantee Fund for loans to businesses (mainly small and medium-sized enterprises) and EUR 100 billion in loans granted on favourable terms from the Pan-European short-time work scheme (SURE), which is intended to prevent laying off workers.



**Figure 10: Actual survey unemployment rate and prediction of unemployment rate based on Okun's law (left) and employment growth and hours worked in % (right)**



Source: SURS, 2021; calculations by IMAD.

ever (7.3% of GDP). This was mainly due to a higher trade surplus, as the decline in real imports was stronger than the decline in exports, given the sharp decline in household consumption and investment. The larger surplus also resulted from improved terms of trade, as import prices fell more than export prices. This was mainly a result of lower prices of industrial products and lower energy prices due to falling crude oil prices amid declining global demand. The latter, together with reduced electricity prices during the first wave of the epidemic, also had a strong impact on the level of consumer prices, which stagnated on average in 2020 after several years of moderate growth. In addition to energy products, lower growth in service and food prices contributed to the stagnation of consumer prices in the face of reduced domestic demand in connection with measures to curb the spread of COVID-19<sup>7</sup> (see IMAD, 2021).

**The epidemic has halted the continuation of many years of favourable trends in the labour market.** The employment rate was still historically high at the end of 2019, and the unemployment rate was approaching record lows. With the outbreak of the epidemic and measures to contain it, the situation in the labour market has deteriorated, but much less than would have been the case without emergency measures to retain jobs and mitigate the effects of the epidemic. This is indicated by a comparison of the movement of the actual survey unemployment rate and its prediction, which derives from Okun's law, i.e. the long-term link between GDP and the unemployment rate (Figure 10 left).<sup>8</sup> The number

of persons in employment in 2020 was on average 1% lower than in 2019, while the number of registered unemployed persons was 14.6% higher (see also Section 3.3). The internationally comparable unemployment rate in Slovenia in December 2020 was 0.8 percentage point higher than in December 2019, which is a similar increase as the EU average, while still remaining much lower than the EU average.

**Following the improvement of the fiscal situation in 2015–2019, there was a considerable deterioration in the general government balance and debt in 2020.** The general government balance, which was balanced in 2017 and averaged a surplus of 0.6% of GDP in 2018–2019, turned into a high deficit (8.4% of GDP) in 2020. Debt reduction in 2015–2019 by 17 percentage points (to 65.6% of GDP) was followed in 2020 by an increase to a similar extent (to 80.8% of GDP). The continuous improvement of the general government balance until 2019, which in some years deviated slightly from the required structural adjustments, and strong debt reduction by international standards, which even exceeded the required rate of debt reduction under the debt rule<sup>9</sup>, allowed a strong fiscal policy response in 2020

<sup>7</sup> Due to restrictions on the operation of many service activities, the closure of educational institutions (which, like the accommodation and food service activities, are usually an important buyer of food) etc.

<sup>8</sup> The prediction of the survey unemployment rate is made on the basis of Okun's law, which defines the inverse relationship between the change in GDP and the change in the unemployment rate. To estimate the prediction, a model for the period Q1 2000–Q4 2019 was

estimated based on the analysis of the European Commission (EC, 2020e), where the dependent variable is the year-on-year change in the unemployment rate and the explanatory variable is year-on-year GDP growth and its two lags.

<sup>9</sup> According to the FC, Slovenia achieved the medium-term budgetary objective (MTO) in 2018 by taking into account the permitted deviation and complied with the expenditure rule and the debt rule for the transitional period (FC, 2019). In contrast, in 2019, according to the FC, most fiscal rules were not complied with: the debt reduction rule was met (debt decreased by more than four percentage points, while the rule stipulated a reduction of at least 0.5 percentage point), whereas by the EU expenditure rule expenditure exceeded even the two-year average of permitted expenditure growth and the minimum level of structural balance under the EU rules (MTO) was not reached. The national fiscal rule was also not complied with, as general government expenditure exceeded the level stipulated in the applicable framework (FC, 2020a).



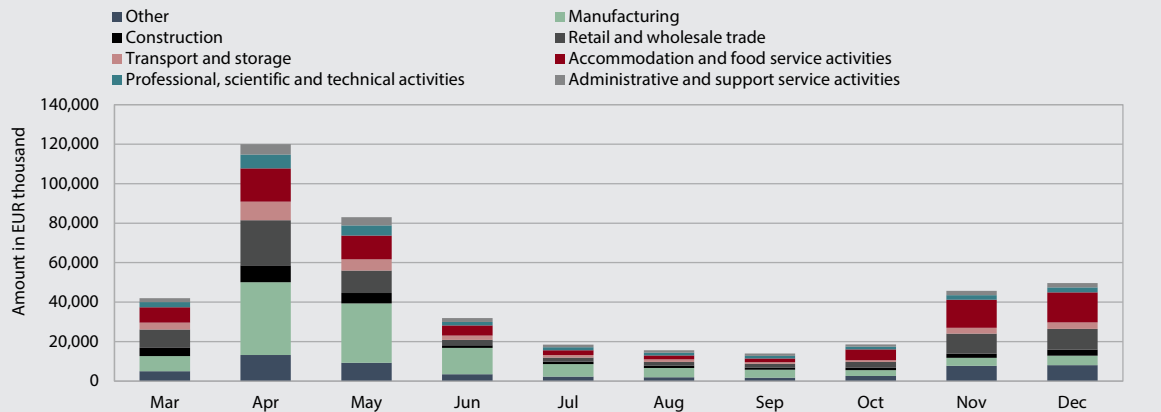
Box 1: The scope of use of emergency measures to retain jobs

In Slovenia, as in other EU Member States, measures to retain jobs were adopted relatively quickly after the outbreak of the COVID-19 epidemic. These help businesses to reduce their liquidity problems by lowering labour costs during a period when they are facing a sharp drop in demand. The two important measures taken were i) reimbursement of salary compensation to temporarily laid-off workers (adopted at the end of March 2020) and ii) partial subsidies of short-time work (end of May 2020), to which this analysis relates.<sup>1</sup> The measure of reimbursement of salary compensation to temporarily laid-off workers provided employers with a partial reimbursement of paid salary to workers who could not be provided with work due to the epidemic and were on temporary lay-off. The measure to shorten full-time work enabled the employer to temporarily order part-time work (to a maximum of half-time work), and for the rest of the time the worker was on temporary lay-off (see also Section 3.3).

Measures were available for a large proportion of businesses, especially in activities that were severely affected by the fall in economic activity. Data on payments made by the Employment Service of Slovenia (hereinafter: ESS) for the application of individual emergency measures show that from March to December 2020 the temporary lay-off measure was used by 30,800 business entities, which used this measure for 208,000 employees. The short-time work measure was used by 6,900 thousand business entities for 36,600 thousand employees. The significantly lower frequency of using the short-time work measure may also be partly due to the fact that businesses saw the measure of temporary lay-off as more attractive in terms of the impact on reducing labour costs.

The amounts of payments from emergency measures are largely related to the development of the epidemic and/or its negative impact on economic activity. The first wave of the epidemic, together with the measures to contain it, severely affected both service activities and industry. After recovering in the third quarter, the negative impact on economic activity was smaller, with service activities most affected. Accordingly, the amounts paid under the emergency measures of temporary lay-off and short-time work also fluctuated. The monthly amount of payments to the affected part of the economy peaked in April, during the first wave of the epidemic, when it reached EUR 120 million. A total of 30.8% of this amount was paid to business entities in manufacturing and 68.8% to those in service activities. The total amount of payments to the economy then fell month by month until September, when it reached its lowest level. Between October and December, which was marked by the second wave of the epidemic, a period of renewed but less pronounced growth followed. In December, EUR 49.7 million was paid out. Due to the lesser consequences of the second wave of the epidemic, only 9.6% of the total amount was paid to the manufacturing sector that time. Among service activities, the accommodation and food services sector and retail trade sector stood out in terms of the amount of payments in April and December, with the amount of payments to the accommodation and food services sector in December being 9.8% lower than in April and the amount of payments to the retail trade sector being lower by 53.9% in December compared to April.

Figure 11: Amount of payments from emergency measures in the labour market\*, Slovenia, 2020



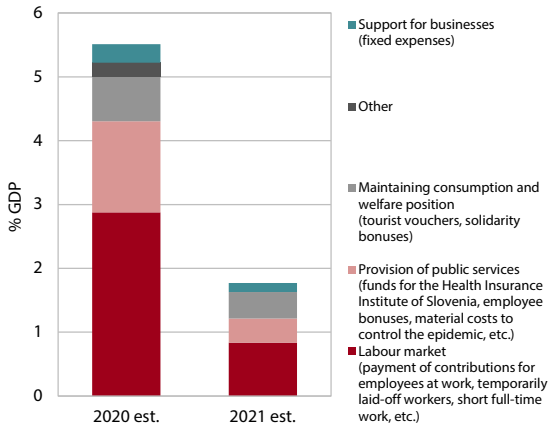
Source: ESS, 2021; calculations by IMAD. Note: \* The two important measures taken were i) reimbursement of salary compensation to temporarily laid-off workers (adopted at the end of March 2020) and ii) partial subsidies of short-time work (end of May 2020).

<sup>1</sup> In addition to these two, some other measures were taken to reduce labour costs (e.g. exemption from payment of pension insurance contributions), which are not included in this analysis.

in the form of support measures to mitigate the effects of the epidemic. According to IMAD’s estimates, these measures stood at around 5.4% of GDP in 2020 and were mainly aimed at preserving jobs and existing economic potential (Figure 12; see also Box 1 and Section 3.3).<sup>10</sup> In order to contain the overall growth of expenditure, in drafting the revised state budget for 2020 restrictions or postponement of expenditure assessed as not urgent had to be determined and funds redirected to finance the elimination of COVID-19-related consequences (Government of the RS, 2020). Due to the extraordinary circumstances in which the general escape clause relating to fiscal rules at EU and national levels was activated, the adequacy of the expenditure ceiling in accordance with the fiscal rules for 2020 was not assessed, but the EC and the FC provided guidance on fiscal policies with an emphasis on the temporariness and medium-term fiscal sustainability of measures taken (EC, 2020; FC, 2020b). When adopting measures to mitigate the effects of COVID-19, the Fiscal Council also expressed the opinion that measures should be implemented in a rational order by addressing, as far as possible and as effectively as possible, the areas most severely affected by the epidemic at certain stages, at the same time opening up room for economic policy in the further stages of recovering from the epidemic’s consequences and of the economic recovery, when different challenges will once again come to the fore (FC, 2020c).

**Due to the uncertain circumstances regarding the development of the epidemic and its economic consequences, it is not yet entirely clear when the path to a medium-term balance of public finance will begin; in the international environment, however, there are many debates about reducing high debt levels with currently low interest rates and reforming fiscal rules.** In March 2021, the EC confirmed in a communication to the Council the existence of exceptional circumstances at the EU level in 2021, and this is very likely to be the case also in 2022. The deactivation of the general escape clause is expected to take place in 2023 (EC, 2021).<sup>11</sup> In assessing exceptional circumstances, the EC relied on the criterion of achieving the level of GDP as at the 2019 year end, which in the current circumstances it considers more appropriate for assessing the economic situation compared to the estimates of the output gap, labour market indicators

**Figure 12: Estimation of expenditure to contain the epidemic in 2020**



Sources: MF, 2021a; SURS 2021; calculations by IMAD.

or GDP growth rates in individual quarters. In such circumstances, countries should phase out temporary measures and shift them from general to more specific and to measures that support the reallocation of resources to future-proof sectors. In the case of measures of a permanent nature, the EC recommends that such measures be supported by appropriate sources of funding to ensure medium-term budget neutrality. A similar warning was given by the FC.<sup>12</sup> A review of the functioning of existing fiscal rules at the EU level before the outbreak of the COVID-19 epidemic showed that despite their implementation after the global financial crisis, many major euro area countries failed to significantly reduce their fiscal debt by 2019, leading to pro-cyclical fiscal policies; in addition, the containment of capital expenditure played an important role in achieving fiscal objectives (EFB, 2020). Based on these findings, more concrete proposals are already being made regarding possible adjustments to and simplifications of fiscal rules for the period after the deactivation of the general escape clause (EFB, 2021).<sup>13</sup> In addition, the motivation for changing the existing European fiscal framework is also enhanced awareness of the need to include a broader perspective in fiscal policy guidelines, i.e. not only in terms of assessing the output gap and demographic changes, but also in terms of the quality of public finance, the achievement of climate goals, where measures cannot be delayed, etc.

<sup>10</sup> In addition, deferrals, instalments and unpaid tax prepayment were granted in accordance with the emergency legislation. Liquidity loans (SID Bank, Slovene Enterprise Fund) and guarantees also provided support to the economy. The total amount of all measures (revenue, expenditure and liquidity loans) amounted to EUR 3.5 billion by February 2021 (FC, 2021a). By international comparison, Slovenia had more direct support in the form of general government expenditure and fewer guarantees were used (EC, 2021; EU IFI, 2021).

<sup>11</sup> The EC will reassess the fulfilment of conditions for extraordinary circumstances based on its spring forecast 2021. Based on the IMAD Spring Forecast (2021) and the ZFisP, the FC also assessed in early April 2021 that at least one condition to exercise extraordinary circumstances in 2022 was met, but it indicated that it would regularly check compliance with the conditions, which could change the assessment (FC, 2021b).

<sup>12</sup> Assessing the budget documents for 2021 and 2022, the FC warned against using the existing circumstances to implement measures that would structurally deteriorate the medium-term fiscal position (FC, 2020d).

<sup>13</sup> The EFB is proposing a simplification of fiscal rules, with debt acting as an anchor and one operational rule limiting the government’s net primary expenditure while protecting investments. In parallel, it was proposed to differentiate the rate of debt reduction by country, which would also be more realistic. Other international institutions (OECD, IMF) in public discussions of the challenges of future consolidation also highlight dilemmas regarding sustainable debt levels in the low interest rate environment and the possibility of differentiating debt reduction paths by country, stressing the importance of investing in economic recovery and addressing future development challenges.

The continuation of the public debate on the revision of the fiscal framework, which was initiated by the EC in 2020 but interrupted due to the epidemic, was announced by the EC to resume at the beginning of the economic recovery. The significant increase in debt in 2020 in the low interest rate environment has exacerbated the challenge of reforming fiscal rules.

**In the coming years, it will be necessary in Slovenia to include the necessary adjustments to the structure of general government revenue and expenditure in medium-term fiscal planning and private sources to address development challenges.** The connection between the strategic document (Slovenia's Development Strategy) and fiscal planning is also foreseen by the ZJF, which is not implemented in 2020 and 2021 in accordance with the emergency legislation (ZDLGPE, 2020). After the epidemiological situation stabilises, Slovenia will enter the new medium-term period of fiscal consolidation with a reduced taxable capacity as a result of reduced tax burdens in 2019–2021 (holiday allowance, personal income tax, excise duties on energy products, motor vehicle tax) aimed at disburdening labour taxation and strengthening consumption. Therefore, a further reduction in public resources in the coming years may complicate the fiscal consolidation process. On the other hand, expenditure<sup>14</sup> strengthened structurally already in 2019, which, according to the estimated expenditure growth, which excludes one-off measures to mitigate the effects of the epidemic, continued in 2020. With increases in expenditure in 2019 and 2020, certain disparities in the salaries of public employees were addressed and performance-related bonus was restored, growth in healthcare employment was strengthened, the minimum income for the most vulnerable groups was increased, and personal assistance expenditure was increased as a response to part of the growing need for long-term care. In the future, it is essential to focus a significant portion of the EU's financial resources on tackling the challenges of climate change, digitalisation and other necessary structural adjustments (population ageing). This is also emphasised by the EU-wide recovery plan for Europe,<sup>15</sup> and to a greater extent these objectives should also be supported by national policies (on the tax and expenditure side). Given the scale and nature of the challenges (see also Section 4.1), which cannot be addressed only within limited public resources, it will be necessary to mobilise private resources in the coming years.<sup>16</sup>

**The Slovenian financial system remained stable at the outbreak of the epidemic, but its level of development is low compared to the EU average.**

Rapid and comprehensive measures by economic policymakers have helped to ensure that the stability of the system remained solid despite higher risks. After peaking following the last financial crisis, the share of non-performing loans approached the EU average, while banks' capital adequacy remained high and continued to exceed the EU average. The balance sheet total of banks, which represent the most important segment of the financial system, stood at 99.7% of GDP and was lower not only than the EU average but also than the average level of new EU Member States. Banks generated a profit last year, this about a fifth lower than in 2019.<sup>17</sup> Net interest income was lower by 6.4%. Among various segments of the financial system, in terms of development Slovenia lags behind most in the capital market, which is small and illiquid, and least in insurance, where non-life insurance predominates, while the importance of life insurance and other old-age saving is rather modest. In our opinion, this is also a consequence of conservative saving habits of households<sup>18</sup> and their lack of confidence in the capital market, while the financial literacy of the population should also be strengthened. All this further hinders the development of the capital market, as insurance companies and pension funds are one of the most important institutional investors.

**The structure of corporate funding sources has improved significantly since the global financial crisis; funding with bank loans as an important financial source of companies slowed down considerably during the epidemic.** The share of capital, which is the most stable source of funding, has increased by almost two-fifths since 2012. At the end of the third quarter of 2020, it was around 55%, which is still slightly below the EU average (56.4%). In addition to value changes<sup>19</sup>, capital inflows were contributed by investors' capital inflows, mainly from abroad, while funding by issuing securities was rather modest. However, a significant part of corporate funding continues to be bank loans. Following the outbreak of the epidemic, banks' lending slowed considerably, while it strengthened in EU Member States.<sup>20</sup> In our opinion, the low credit activity in Slovenia is a consequence of the limited supply of such loans and also lower demand

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systems due to demographic change and the reduction of the gap between resources and expenditure, see also IMAD (2019c).

<sup>17</sup> Without taking into account a one-off event (the merger of two banks), profit would be even lower.

<sup>18</sup> Households still hold about 40% of financial assets in the form of bank deposits (the EU average is around 30%), while the share of life and pension insurance accounted for slightly more than 13% of household financial assets (EU 35%).

<sup>19</sup> Value changes are changes in financial assets and liabilities that are not the result of financial transactions (changes in exchange rates, differences in market prices of securities, value changes in equity, status changes, etc.).

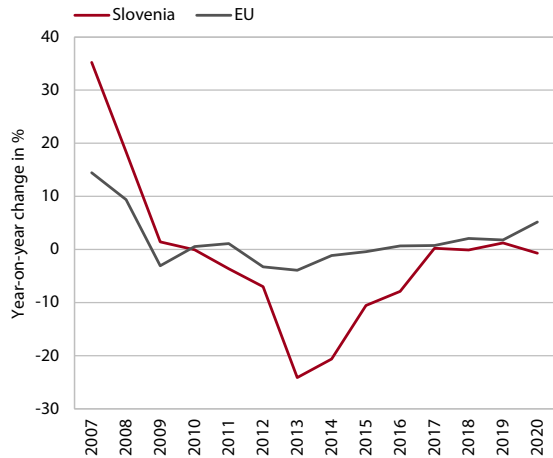
<sup>20</sup> According to data from the Bank Lending Survey, banks in Slovenia have largely tightened lending conditions since the outbreak of the epidemic.

<sup>14</sup> The 2018 public sector salary agreement, the lifting of austerity measures following the financial crisis, and additional expenditure increases for some social transfers and benefits. In 2019, total expenditure growth exceeded total revenue growth.

<sup>15</sup> In the absence of central fiscal capacity, the recovery plan for Europe is a resource for stabilising economies and speeding up recovery. Furthermore, by setting minimum shares of spending on digital transformation and in support of climate goals, spending is directed towards EU priority policies, thus being a way of influencing the quality of investment (public finance).

<sup>16</sup> For more information on the sources of funding for social protection

**Figure 13: Year-on-year increase in loans to non-financial corporations**



Sources: BS, 2021a; ECB, 2021; calculations by IMAD.

of companies. Banks are reluctant to take on additional risks due to the great uncertainty associated with the development of the epidemic, and due to low interest rates they seek business with higher interest rates, such as lending to households.<sup>21</sup> Slower economic activity and high uncertainty also reduced the demand of companies for loans, both for funding current operations and for investments, the volume of companies' own sources of funding increased significantly,<sup>22</sup> and the need for additional liquidity was alleviated by the government.

**Indicators of indebtedness, liquidity and profitability of the corporate sector improved significantly by 2019, so that most companies entered the COVID-19 crisis in a much better shape than in the 2008 financial crisis.** Corporate indebtedness to banks<sup>23</sup> also decreased in 2019 and has been achieving pre-financial crisis levels for some time. Companies' ability to repay debt has further improved despite the first signs of increasing corporate indebtedness,<sup>24</sup> which was the highest in the observed period (since 2006),<sup>25</sup> while corporate over-indebtedness bottomed in the same period. Financial debt concentration of over-indebted companies partially improved in 2019, but it remained

high, as the ten most indebted companies held around 22% of the financial debt of over-indebted companies (see Box 2). At the same time, in 2019 the liquidity and profitability of the corporate sector strengthened according to all indicators and mostly reached the most favourable values throughout the entire observed period (Lušina, 2020).

**Regional disparities at the level of both cohesion and statistical regions were stable until 2019, and the COVID-19 crisis has thus far had an uneven impact on the regions, mainly due to differences in economic structure.** Despite the rapid economic growth after 2014, regional disparities remained stable and even at a slightly lower level than before the global financial crisis. Thus far, the COVID-19 crisis has hit companies engaged in trade, accommodation and food service activities and transport activities the hardest; these generated around a fifth of value added in 2019, the most, 40%, in the Obalno-kraška region. Among the more affected were also some manufacturing activities, which in 2019 generated the most value added in Jugovzhodna Slovenija (47%)<sup>26</sup> and the Koroška region (40%). At this time, only data on changes in the labour market provide a more accurate assessment of the impact on the regions. In the second quarter of 2020, the employment rate fell year on year in all regions; the number of jobs<sup>27</sup> decreased more in the period from February to December 2020 in the Zahodna Slovenija cohesion region, and in terms of statistical regions the most, over 2%, in the Primorsko-notranjska region, the Obalno-kraška region, Jugovzhodna Slovenija and the Gorenjska region.<sup>28</sup> The registered unemployment rate increased in all statistical regions, most in the Obalno-kraška region (by 1.8 percentage points year-on-year in 2020) and the Koroška, Gorenjska and Podravska regions (by 1.3 percentage points each).

**The COVID-19 epidemic will further accelerate the transition to the fourth industrial revolution, which will make it necessary to speed up the structural restructuring of each region, which is also a precondition for more balanced regional development.** The transition to Industry 4.0 requires rapid modernisation from the regions with an even greater emphasis on investment in intangible assets, knowledge, promotion of entrepreneurship, innovation and the introduction of new business models (IMAD, 2020d). This should be directly reflected in the structure of spending of European funds, which would also be used more effectively by promoting interregional cooperation.<sup>29</sup> Thus, for example, according to ESPON

<sup>21</sup> Until 2019, consumer loans, which had the highest interest rates, were growing the fastest. With the adoption of a binding macroprudential measure, the Bank of Slovenia severely restricted such lending, so that only the volume of housing loans is growing.

<sup>22</sup> The volume of corporate deposits with domestic banks alone increased by almost a fifth in 2020 to EUR 8.1 billion.

<sup>23</sup> On average, around 29% of companies had bank debt in 2006–2019 and only 26% in 2019, which is almost 7% less than before the financial crisis. However, this share has been increasing again over the last three years.

<sup>24</sup> Total debt has been rising since 2017 and financial debt has been increasing more and more intensively since 2018, while over-indebtedness fell again in 2019 after a one-year rise and bank debt fell further in that year.

<sup>25</sup> The indicators for total debt and bank debt in liabilities (which can be compared with the situation before 2006) reached the most favourable values throughout the entire observed period (since 2002; see Figure 6).

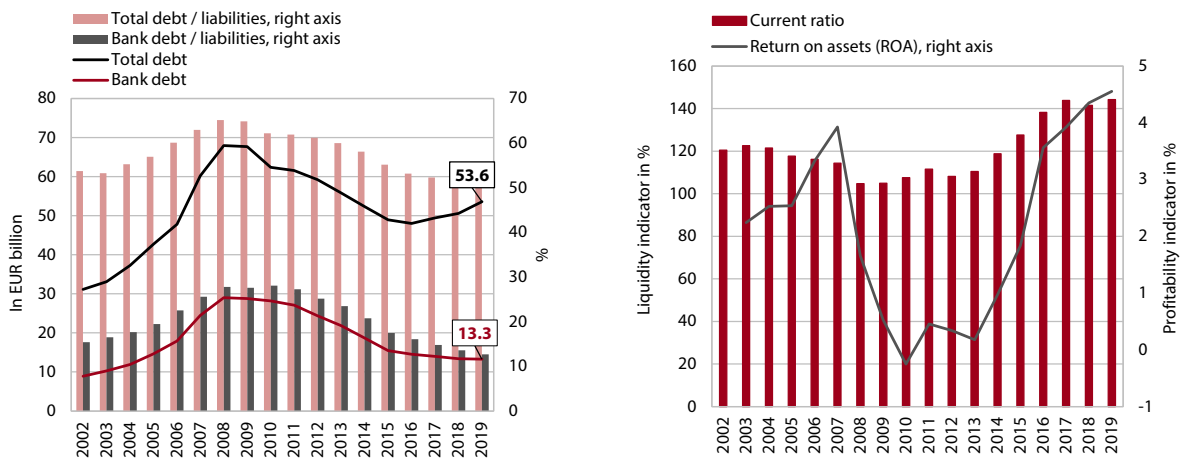
<sup>26</sup> The region is mainly represented economically by the pharmaceutical industry, which was not affected by the epidemic, and the automobile industry, one of the most affected industries at the time of the epidemic, in which restructuring had already begun.

<sup>27</sup> Measured by the number of persons in employment by region of employment.

<sup>28</sup> In this period, the Posavska and Podravska regions even slightly increased the number of jobs (by 0.1 and 0.3% respectively).

<sup>29</sup> The decision to move to three cohesion policy operational programmes

Figure 14: Indebtedness, liquidity and profitability of the corporate sector, Slovenia



Source: AJPES, various years; calculations by IMAD. Note: r. a. – right axis.

(2020a), the Vzhodna Slovenija cohesion region, where Slovenian coal regions are located, is one of the less competitive regions with low knowledge capital but has the possibility to switch to robotisation of traditional production and other forms and become a new island of creative innovation, as defined in the ESPON applied research project (2020b). Investments in new activities<sup>30</sup> can also encourage positive shifts in the low-carbon circular economy, shortening supply chains, logistical reorganisation and digitalisation of companies. This contributes to the greater attractiveness of rural areas and affects the balance between urban and rural areas, especially if territorial approaches are used to promote development in functional areas of regions in accordance with the draft new spatial strategy of the Republic of Slovenia (MESP, 2020), the new territorial agenda 2030 (TA, 2020) and OECD recommendations (OECD, 2020b).

**Advantage should be taken of the opportunity to use remote work to a greater extent, because it can have positive effects not only on the development of the regions, but also on slowing down depopulation of rural areas.** The epidemic-driven increased use of remote work when the nature of work and good access to high-speed broadband networks<sup>31</sup> allow this could have a number of positive effects in the regions. It would reduce daily commuting, the need to build transport infrastructure and GHG emissions and decrease the construction of housing in areas of job concentration and thus maintain the population of rural areas. Not only is the population in Slovenia uneven and dispersed,<sup>32</sup>

but the less accessible rural areas, especially the border regions, are being depopulated.<sup>33</sup> Remote work could slow down 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. Reversal of trends is possible at least in some rural areas, but this requires strategic reflection on the desired and achievable spatial development<sup>34</sup> by focusing efforts on areas with a longer-term perspective.

will make cooperation between stakeholders from different regions even more difficult, so this is a step in the opposite direction.

<sup>30</sup> 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.

<sup>31</sup> Poor accessibility indicates the need to invest in digital transformation (see also IMAD, 2020d).

<sup>32</sup> This settlement pattern is the result of natural conditions, historical development, targeted promotion of a polycentric urban system and

the fact that people place a high value on living close to nature. The most densely populated areas are the Ljubljana and Celje basins, the Šaleška valley, the Drava, Murska and Krška plains, the Vipava valley, and the littoral zone. Areas of low settlement are The Upper Soča, Idrija, Cerklje and Škofja Loka hills, Brkini, Haloze, the high Dinaric plateaus, and the border areas of Kozjansko and Goričko (Nared, 2019).

<sup>33</sup> Between 2008 and 2018, the depopulation areas covered about 57% of Slovenian territory (Nared, 2019).

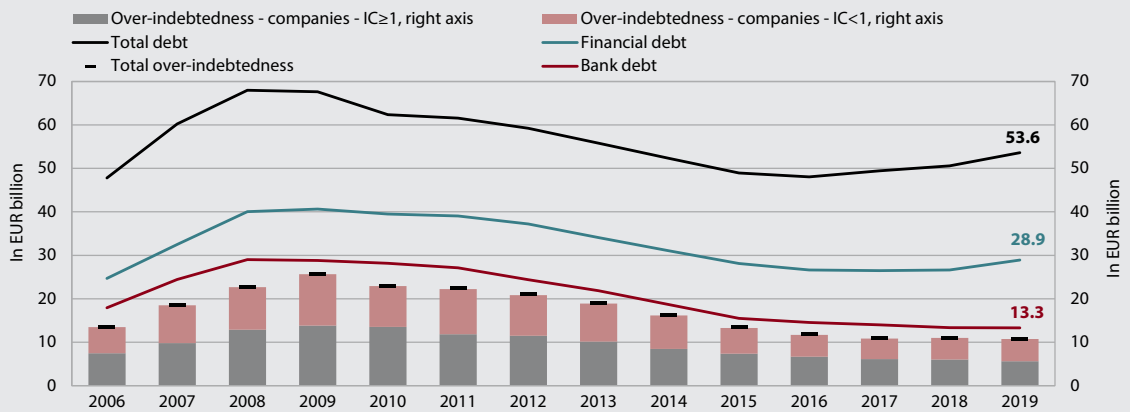
<sup>34</sup> The policy efforts to date to reverse this trend, which have improved infrastructure in particular and the employment and economic structure to a lesser extent, have had modest results.



Box 2: Exposure of the corporate sector to insolvency in 2020

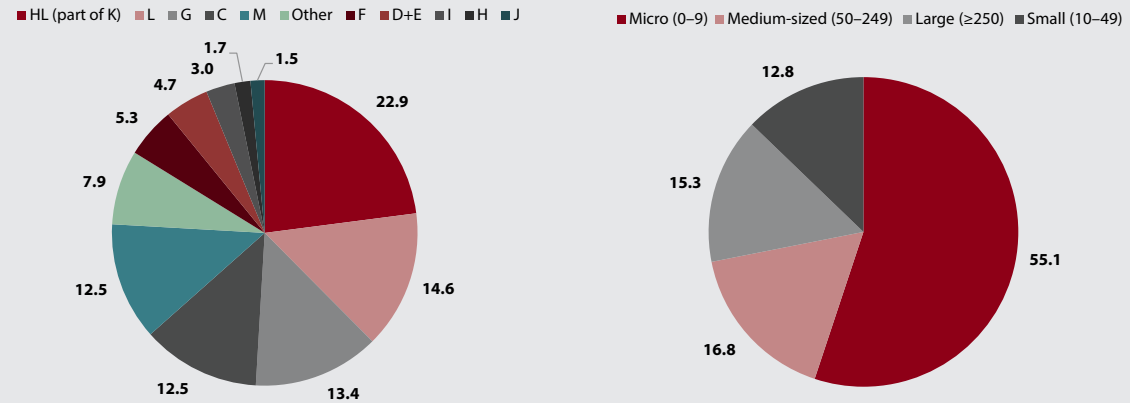
With (on average) favourable business results of companies, good liquidity and low indebtedness, in 2019 30% of companies (19.6% of employees, 13.2% of value added) faced over-indebtedness and were thus potentially exposed to insolvency even before the outbreak of the COVID-19 crisis. Among over-indebted companies,<sup>1</sup> around 47% of debt in 2019 was such that companies were unable to finance it on an ongoing basis due to low or even negative cash flow from operating activities ( $IC < 1$ ), which posed a risk to their existence (see Figure 7). In terms of structure, in 2019 more than 20% of total indebtedness was concentrated in holding and leasing companies and more than 10% in real estate, trade, manufacturing, and professional, scientific and technical activities. More than half of the over-indebted companies were micro companies (see Figure 8 and Lušina, 2020). Over-indebted companies have only temporarily postponed their problems during the epidemic, mainly due to various forms of assistance to preserve employment, tax deferrals and credit agreement obligations (ZIUOPOK,

Figure 15: Corporate sector indebtedness and over-indebtedness, 2006–2019



Source: AJPES, various years; calculations by IMAD. Note: GD – IC – companies with interest coverage (EBITDA/interest)

Figure 16: Structure of over-indebtedness, in %, 2019



Source: AJPES, various years; calculations by IMAD.  
Note: C – Manufacturing, D+E – Energy industry, F – Construction, G – Wholesale and retail trade, H – Transportation and storage, HL – Holding and leasing companies, I – Accommodation and food service activities, J – Information and communication, L – Real estate activities, M – Professional, scientific and technical activities, Other\* – A, B, part of K, N, R, S, O–Q, U.  
\* A – Agriculture, forestry and fishing, B – Mining and quarrying, part of K – Financial and insurance activities, N – Administrative and support service activities, O – Public administration and defence, compulsory social security, P – Education, Q – Human health and social work activities, R – Arts, entertainment and recreation, S – Other service activities, T – Activities of households as employers of domestic personnel; undifferentiated service-producing activities of private households for own use, U – Activities of extraterritorial organisations and bodies.

<sup>1</sup> Over-indebtedness is calculated as the sum of all financial debt exceeding EBITDA by a factor of five (if  $FL \geq 5$ ) or as total financial debt (if  $EBITDA < 0$ ); FL – financial leverage (financial debt/EBITDA). EBITDA (Earnings Before Interest, Taxes, Depreciation and Amortisation) is free cash flow from operating activities (earnings before interest, taxes, depreciation and amortisation).

2020; three-quarters of applications were submitted in the first month of the Act's validity); their problems are expected to become more visible after the measures have expired.

**Despite the measures, the most problematic among the over-indebted companies from 2019 already have significant problems and the probability of their bankruptcy is relatively high.** These are companies that have financial debt and negative EBITDA. Their over-indebtedness or financial debt in 2019 amounted to EUR 4.7 billion. Such were 15.7% of companies, which employed 5.4% of total employees and generated 1.6% of value added of all companies.<sup>2</sup> The bulk of the most problematic companies were SMEs (almost 80%), mainly micro enterprises. By activity, more than 30% of the total over-indebtedness of these companies was concentrated in holding and leasing companies and more than 10% in manufacturing and professional, scientific and technical activities (Table 1).

**In addition to problematic over-indebted companies, in 2020 the probability of insolvency increased for many companies engaged in service activities which did not operate during the epidemic in order to prevent the spread of the virus.** These are mainly companies from: (i) accommodation and food service activities (of which tourism is a part), (ii) transportation and storage – the part that is strongly related to tourism, (iii) arts, entertainment and recreation, and (iv) other activities. Despite a number of measures to help these companies (measures to partially subsidise fixed expenses, various measures to preserve employment, moratoria on the payment of taxes and loans, extensive liquidity funding of all companies and dedicated funding of tourism, accommodation and food service activities and investment in research, development and innovation by the SID Bank and Slovene Enterprise Fund), these may not be able to fully compensate for the loss of income due to temporary closure. However, some start-ups engaged in professional, scientific and technical activities (M) are also at risk, as they needed a lot of start-up capital for their operations but now have limited capabilities to launch and sell their products on the market. Nevertheless, the data on (i) the number of legal entities by number of days of outstanding liabilities recorded, (ii) the number of initiated bankruptcy proceedings against companies and sole proprietors, and (iii) the number of personal bankruptcies for 2020 remain quite encouraging, which is partly related to the closure of the courts during this period. Solvency problems could increase in the future, however. These could be further mitigated by (i) the until now mostly unutilised guarantee scheme of the Republic of Slovenia (according to the ZDLGPE, 2020), extended until 30 June 2021 and adapted by the sixth package of measures to mitigate the consequences of the epidemic (PKP6) – EUR 1,921.1 million in guarantees was available as at 28 March 2021, (ii) the guarantee scheme of the Republic of Slovenia, of which only one-third of funds have been utilised until now (according to the ZIUZEOP, 2020) – EUR 141.8 million was available as at 28 February 2021, (iii) extended moratoria on loan repayments,<sup>3</sup> and (iv) various liquidity loans of the SID Bank and the Slovene Enterprise Fund.

**Table 1: Structure of over-indebtedness (or financial debt) by size and selected activity of the most problematic companies in %, 2019**

	Micro (0–9)	Small (10–49)	Medium (50–249)	SMEs – skupaj	Large (≥ 250)	Over-indebted – total
Manufacturing (C)	2.9	1.1	1.5	5.4	11.5	16.9
Energy industry (D+E)	0.8	0.2		1.0		1.0
Construction (F)	5.7	0.2	0.0	6.0		6.0
Wholesale and retail trade (G)	5.6	1.2	0.3	7.1	1.1	8.2
Transportation and storage (H)	1.2	0.2		1.4		1.4
Accommodation and food service activities (I)	2.4	0.2	0.0	2.6	0.1	2.7
Information and communication (J)	1.2	0.2	0.8	2.2		2.2
Real estate activities (L)	7.6	0.2		7.8	0.0	7.8
Professional, scientific and technical activities (M)	8.3	0.8		9.1	3.2	12.3
Holding and leasing companies (part of K)	7.1	5.3	15.5	27.9	4.9	32.8
OTHER (A, B, part of K, N, R, S, O–Q, U)	6.0	2.4	0.1	8.5	0.2	8.7
<b>Over-indebted – total</b>	<b>48.8</b>	<b>12.0</b>	<b>18.2</b>	<b>79.0</b>	<b>21.0</b>	<b>100.0</b>

Source: AJPES, various years; calculations by IMAD.

Note: SMEs – micro, small and medium-sized enterprises; the criterion for company size is taken into account: average number of employees in the financial year.

<sup>2</sup> Their over-indebtedness accounted for 43.8% of all over-indebtedness and bank debt for 5.7% of the bank debt of all companies.

<sup>3</sup> According to the existing regulations, the moratoria will expire in November 2021, and an initiative has been addressed to the European Banking Authority to extend them until the end of 2021 (MF, 2021b).

## 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 businesses 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 potential 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 businesses 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 suitable human resources, which the SDS deals with in Development Goal 2.

### SDS 2030 performance indicators for Development Goal 6:

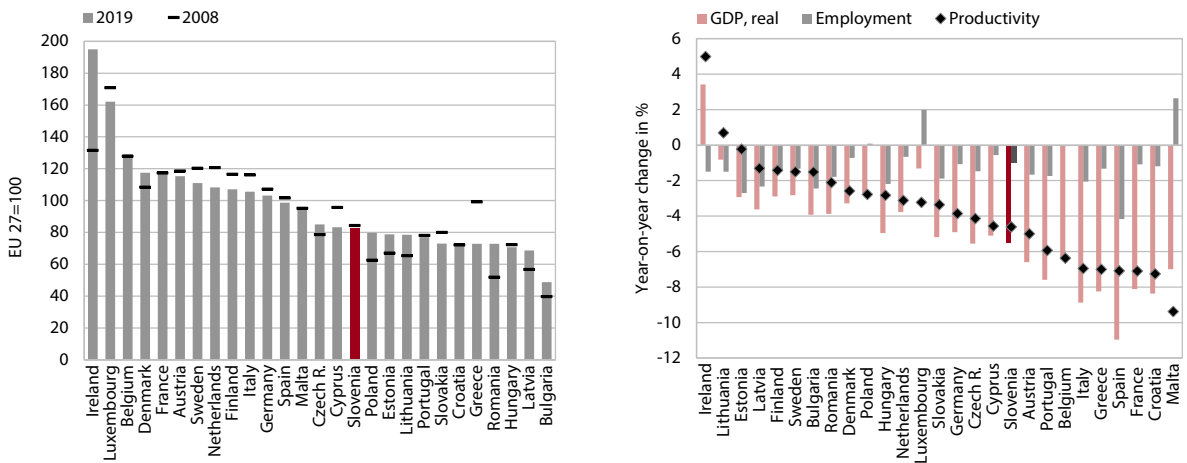
	Latest data		Target value for 2030
	Slovenia	EU average	
Labour productivity, index EU = 100	83 (2019)	100 (2019)	95
European innovation index, index EU 2011 = 100	92.4 (2019)	108.9 (2019)	> 120, i.e. ranking among leading innovators
Digital Economy and Society Index ranking among EU Member States	16 <sup>th</sup> (overall in 2020) 15 <sup>th</sup> –22 <sup>nd</sup> (across five components)	-	ranking in top third of EU Member States according to all five main components of the index

### 1.2.1 Competitiveness

In the decade before the outbreak of the epidemic, Slovenia recorded relatively low productivity growth, which in 2020, measured by GDP per employee, fluctuated sharply downwards. Labour productivity growth had only gradually recovered after the fall in the global financial crisis, and growth rates remained relatively low even in the period of economic growth from 2014 to 2019 (1.4% on average per year

compared to 3.0% in 2000–2008). For Slovenia, which lags far behind the EU average in terms of labour productivity (expressed in purchasing power standards) (by 17% in 2019), this was also a slowdown in catching up with more developed countries. The outbreak of the epidemic in 2020 significantly reduced the output volume due to business restrictions in some activities and disruption of production processes. In parallel,

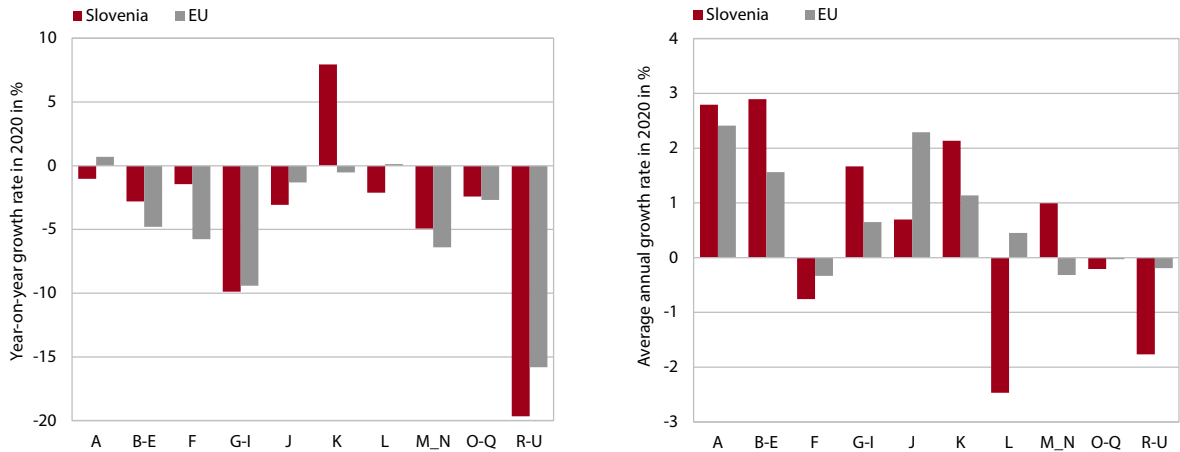
Figure 17: Productivity (GDP per employee in purchasing power standards) and change in productivity, GDP and employment in 2020 (right)



Source: Eurostat, 2021; calculations by IMAD. Note: Productivity level (left) measured by GDP in purchasing power standards per employee; productivity growth (right) measured by GDP at constant prices per person employed.



Figure 18: Change in productivity in 2020 (left) and in 2005–2019 (right)



Source: Eurostat, 2021; calculations by IMAD. Note: Standard Classification of Activities: A – Agriculture, forestry and fishing, B – Mining and quarrying, C – Manufacturing, D – Electricity, gas and steam and air-conditioning supply, E – Water supply, sewerage, waste-management and remediation activities, F – Construction, G – Wholesale and retail trade, 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 and defence, compulsory social security, P – Education, Q – Human health and social work activities, R – Arts, entertainment and recreation, S – Other service activities, and T – Activities of households as employers of domestic personnel; undifferentiated service-producing activities of private households for own use.

the goal of government measures was to prevent or mitigate the decline in employment. The combination of both led to a severely disrupted ratio between the generated GDP and the number of employees, resulting in a 4.6% decrease in the measured labour productivity in 2020. It should be emphasised that, due to the strong impact of government measures to retain jobs on the calculation of the productivity indicator, this does not necessarily represent a real reduction in work efficiency. This is confirmed by the productivity indicator calculated per hour worked, which did not fluctuate downwards in 2020, but even that productivity indicator probably does not show the actual situation, as reporting hours worked in that situation is likely to be less reliable statistics than the number of employees. The large discrepancy between the two productivity indicators was also seen in other EU Member States in 2020 due to the fact that during the epidemic work was adjusted to a lower volume of value added primarily by reducing the number of hours worked.

**The productivity cross-section by sector shows significant differences between sectors in 2020, as the epidemic has significantly affected some service activities; in the long run, especially low productivity growth in information and communication activities stands out.** With the outbreak of the epidemic, productivity declined in all activities, with the exception of financial services, as in the EU most strongly in services with business restrictions (wholesale and retail trade; accommodation and food service activities, transport; arts, entertainment and recreation). The smallest declines in productivity, also compared to the EU, were recorded in 2020 in the business sector in construction and manufacturing, i.e. in activities that operated for most of the year despite the epidemic. In the long

term (2005–2019), especially construction, which was severely affected by the global financial crisis, stands out negatively compared to the EU average, and information and communication activities (ICT) also have very low long-term productivity growth. These, together with professional, scientific and technical activities, are among the knowledge-intensive services that play an increasingly important role worldwide (also through their use in other activities<sup>35</sup>), so their slow progress also means the loss of significant potential to increase the productivity of the entire economy. The relatively weak competitiveness of knowledge-intensive services is also reflected in their export market share in the EU market, which did not increase in 2010–2019 (Figure 21 right).

**Without adequate policy support, the current crisis could limit productivity growth in the medium term.** More than the decline in productivity in 2020, which primarily resulted from a shock, the impact of the crisis on future productivity growth potential is important for the competitiveness of the economy and the well-being of the population. The analysis for Slovenia showed that the modest productivity growth in the last decade before the outbreak of the epidemic was largely due to low investment activity and the slow transition to innovation-supported growth (IMAD, 2019a, 2020d). The dynamics of investment in this period was significantly influenced by aggregate demand and partly by uncertainty and the corporate profit level (IMAD, 2020e). Also in the

<sup>35</sup> According to the latest data for 2015, the share of value added based on knowledge-intensive services in the total value added contained in manufacturing exports was 9.7% in Slovenia and 13.8% on average in the EU (9.5% in the new EU-13 Member States) (IMAD calculations based on the OECD TIVA database – Trade in Value Added; OECD, 2021b).

event of the current crisis, the gradual recovery and uncertainty about the duration of the epidemic could have a negative impact on the investment decisions of enterprises for some time to come. The deteriorating financial situation in enterprises will have a similar impact, but probably to a lesser extent than after the financial crisis in the previous decade, in which the financial exposure of enterprises and the banking system was significantly higher (see also Section 1.1) and the measures designed to mitigate the crisis were less extensive, at least in the beginning. On the other hand, a significant opportunity to increase investment and productivity is offered by the EU's extensive funding, which is also aimed at the post-epidemic recovery of countries. In this context, the current crisis is seen as an opportunity for a faster transition to a more competitive, digital and low-carbon circular economy, which will need to be strongly supported by appropriate measures. These should accelerate investment in tangible and intangible assets, focusing on strengthening innovation and introducing the most advanced technologies in businesses, including by strengthening human capital and preventing the possible negative consequences of the epidemic on the skills of the population (see also Sections 1.2.2 and 2.1).

**Also uncertain is the impact of reallocation (shift of production factors among enterprises and sectors) to productivity growth during and after the epidemic.** Reallocation usually works towards increasing productivity (shift of production factors from less to more productive enterprises; Syverson, 2020), especially in times of crisis, in which more productive enterprises are usually less affected whereas less productive find it harder to survive the crisis (the so-called "cleansing effect"). In the current crisis, the impact of reallocation could be more modest, as extensive government measures have been taken to retain jobs and activities, which are very important in a limited period, because they can mitigate the loss of intangible assets by enterprises incurred in the event of their failure. In addition, due to the nature of the shock, the crisis could also affect some more productive enterprises, e.g. enterprises engaged in activities severely affected by the epidemic, or their business model has become less appropriate as a result of the epidemic, indicating the need for measures to restructure enterprises as soon as possible. The impact of reallocation on productivity growth in Slovenia has significantly decreased over the years following the global financial crisis with respect to shifts among sectors, whereas with regard to shifts among enterprises within the same sector it has further strengthened (IMAD, 2020d, 2020e). However, given the significant differences in achieved productivity of enterprises within the same sector, the potential for improving allocation efficiency is still considerable (IMAD, 2017). In addition to the above-mentioned productivity growth measures, an appropriate combination of measures is therefore very important so as to prevent unnecessary losses of intangible assets due to business failures, and

on the other hand to facilitate labour transfer between enterprises when it no longer makes sense to keep a business alive. In that sense incentives to strengthen the green and digital economy are particularly important. At this time, the first data for 2020 allow only an estimate of reallocation between sectors and show a positive but small effect of changes in the composition of sectors on aggregate productivity in Slovenia.

**The rate of creation of new enterprises that can significantly contribute to productivity growth is not high in Slovenia by international comparison.**

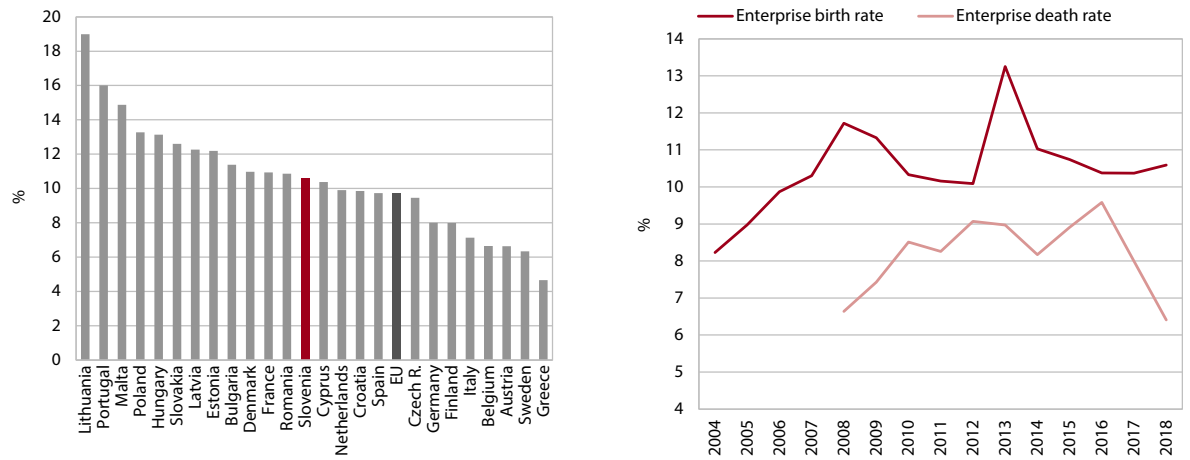
The creation or entry of new enterprises to the market usually plays an important role in reallocating resources to increase productivity. In developed economies, entrepreneurship dynamics measured by the enterprise entry (and exit) rate has been slowing down for some time. The OECD (2020a) links this mainly to the rapid development related to digitalisation, which widens the gap between leading and other enterprises, making it increasingly difficult for new enterprises to enter the market. In Slovenia, the rate of creation of new enterprises (the enterprise birth rate<sup>36</sup>) was increasing until the beginning of the global financial crisis (2008), and in the following ten years until 2018 (latest data) it mostly remained at the level achieved. Nevertheless, the enterprise birth rate was higher than the enterprise death rate (exit rate)<sup>37</sup> throughout the period, though the difference between the two decreased after 2008, resulting in a lower net growth in the number of enterprises. Compared to other EU Member States, the entrepreneurship dynamics measured by enterprise entry in Slovenia is not among the highest (13<sup>th</sup> place among the EU-25 in 2018). The early-stage entrepreneurial activity indicator<sup>38</sup> shows an even less favourable situation; it strengthened slightly during the last period of economic growth, but was among the lowest compared to the EU Member States for which data are available (10<sup>th</sup>–12<sup>th</sup> place among 14–17 Member States in 2018–2020). In the current situation, the accelerated creation of new enterprises will be particularly important for compensating for the shortfall in supply as soon as possible due to the failure of some businesses during the crisis (Syverson, 2020). In doing so, it would be reasonable to additionally support reallocation aimed at ensuring (environmentally sustainable) productivity growth through appropriate measures. According to the OECD (ibid.), in addition to conventional measures to promote entrepreneurship dynamics (reduction of administrative barriers and barriers of entry of new enterprises, access to financial

<sup>36</sup> The ratio between the number of newly born enterprises (enterprise births) and the number of active enterprises. The data for the business economy except activities of holding companies (activities B–N according to the Standard Classification of Activities) are commented on.

<sup>37</sup> The ratio between the number of enterprise deaths and the number of active enterprises.

<sup>38</sup> This is an indicator of the Global Entrepreneurship Monitor (GEM), which measures the share of adult population engaged in entrepreneurial activity (Rebernik et al., 2020).

Figure 19: The enterprise birth rate (entry) in 2018 (left) and changing entrepreneurial dynamics in Slovenia (right)



Source: Eurostat, 2021. Note: The enterprise birth rate (death rate) is the ratio between the number of newly born enterprises in a given year and the number of active enterprises in that year expressed as a percentage.

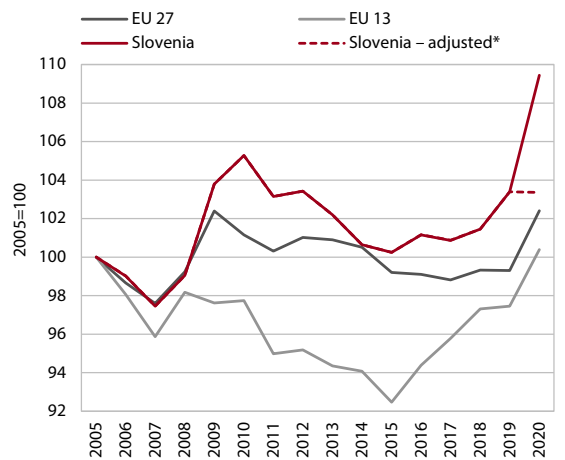
resources, effective bankruptcy legislation, etc.), policies to promote innovation and strengthen human capital are very important, to which Slovenia has not paid enough attention thus far (see also Sections 1.2.2 and 2.1).

**The shock caused by the COVID-19 crisis is also reflected in the cost competitiveness indicator...** In a situation of high employment level and labour shortages and at the same time already slowed growth of economic activity (and cyclical fluctuations in productivity), unit labour costs began to increase in 2018 and more considerably in 2019. With the outbreak of the epidemic in 2020, the ratio between labour costs and productivity continued to rise sharply in statistical terms. However, it is estimated that most of last year's surge in unit labour costs, as shown by statistical data, was financed by the budget in the context of anti-corona government measures, while adjusted or actual unit labour costs of enterprises did not increase on average (see Indicator 1.13). This means that the deterioration in business results and cost competitiveness of enterprises in 2020 was much smaller than shown by the statistics on unit labour costs. The statistically and cyclically driven deterioration in the cost competitiveness indicator is expected to be short-lived, as the shock of the epidemic will be followed by a rebalancing, with adjustments on both the productivity and the labour cost sides. However, this does not mean a lasting improvement in competitiveness, which would also allow for sustainable growth in labour income; thus there is a need for a significant improvement in the potential for long-term productivity growth in the future through enhanced investment and more innovation (see also Section 1.2.2).

**...and export competitiveness.** The export market share of goods, which represents the ratio between Slovenian merchandise exports and import demand for goods from abroad, returned to pre-crisis levels by 2018 after a sharp decline during the global financial crisis in

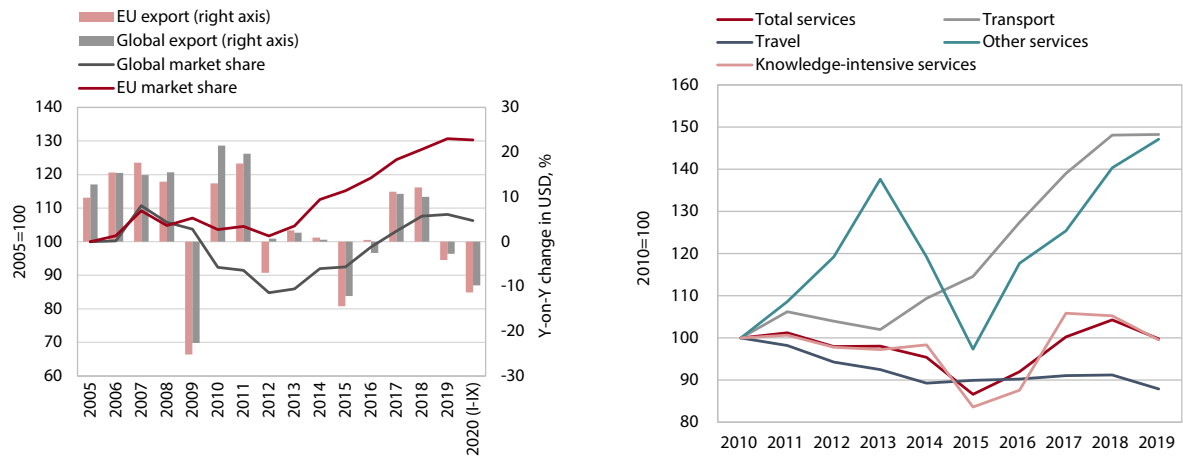
2007. In 2019, its growth came to a halt; in the first three quarters of 2020 it even decreased (in the global market by 1.7% and in the EU market by 0.3%). According to initial estimates, a stronger rebound was seen in the last quarter of 2020, which could offset unfavourable trends, coinciding mainly with the first epidemiological wave. The fluctuation in market share was more a consequence of the impact of the merchandise export structure than the actual competitiveness of exporters. The epidemic affected the EU Member States, where the majority of Slovenian exports are directed, relatively more severely than the rest of the world, especially in the beginning. It also affected relatively more or deepened unfavourable trends in some product markets which are very

Figure 20: Real unit labour costs (RULC)



Sources: SURS, 2021; Eurostat, 2021; ESS, 2021, FARS, 2021; calculations by IMAD. Note: \* The adjusted RULC includes compensation of employees less payments from the budget for (i) compensation for temporarily laid-off employees, (ii) partial reimbursement of short-time work, (iii) social contributions for temporarily laid-off employees, (iv) pension and disability insurance contributions for employees who worked, (v) employee benefits, (vi) quarantine, and (vii) part of sickness benefits based on anti-corona packages.

Figure 21: Export market share in goods in the global and EU market (left) and in services in the EU market (right)



Sources: SURS, 2021; UN Comtrade, 2021; Eurostat, 2021; calculations by IMAD. Note: Excluding exports of pharmaceutical products to Switzerland, which are close to the sharply increased exports of previously imported pharmaceutical products, of which impact on GDP is negligible and not included in national accounts export data.

important in the structure of Slovenian merchandise exports (e.g. production of cars and related products; see Indicator 1.12). An even greater negative effect of the structure impact (due to the large share in the epidemic of severely affected travel and transport services) is expected in 2020 on the movement of the export market share of services. As a result, in relation to the shock caused by the epidemic, in our estimation, the structure of exports in both goods and services changed more significantly in 2020 in favour of an increase in high-tech products and knowledge-intensive services less affected by the COVID-19 crisis, after having largely stagnated during the years before the epidemic (see Indicator 1.14).

**Efforts by enterprises to increase social responsibility, especially with respect to reducing environmental impacts, continued in 2020.** The introduction of various socially responsible practices is becoming an increasingly important instrument worldwide not only for the promotion of sustainable production and consumption, but potentially also for raising competitive advantages of enterprises. In Slovenia, individual organisations and associations play an important role in the expansion and development of corporate social responsibility, as a corporate social responsibility strategy has not yet been adopted at the state level.<sup>39</sup> Some institutions have developed various products to promote corporate social responsibility, such as the Family-Friendly Enterprise Certificate and the Sustainable Enterprise Certificate (awarded by the Ekvilib Institute). As of 2020, organisations and enterprises can also obtain the Socially Responsible Employer Certificate (by the Ekvilib Institute). The purpose of this project is to improve the socially responsible management of

Slovenian enterprises and organisations in relation to employees, thus raising the quality of the work environment in Slovenia (Socially Responsible Employer Certificate, 2020). In Slovenia, some internationally recognised corporate social responsibility certificates<sup>40</sup> are also used, but the databases for systematic monitoring of progress are sparse or are only available for corporate environmental responsibility. Available data for 2020 show that the number of environmental certificates increased between the spring and autumn measurements, which indicates that even in the currently less certain situation due to the epidemic enterprises are responding to the market's great interest in organic products and services, thus aiming to gain certain competitive advantages. In terms of holding various environmental certificates, Slovenia is in the middle of EU Member States, but it lags far behind the most successful ones (see Indicator 1.19).

### 1.2.2 Research, innovation and digital capability

**After a sharp drop in the ranking according to the European Innovation Index (EII) for 2018<sup>41</sup>, Slovenia further declined in 2019<sup>42</sup> and was thus in the group**

<sup>39</sup> Slovenia is in a small group of EU Member States without an officially adopted national strategy of social responsibility (IMAD, 2018).

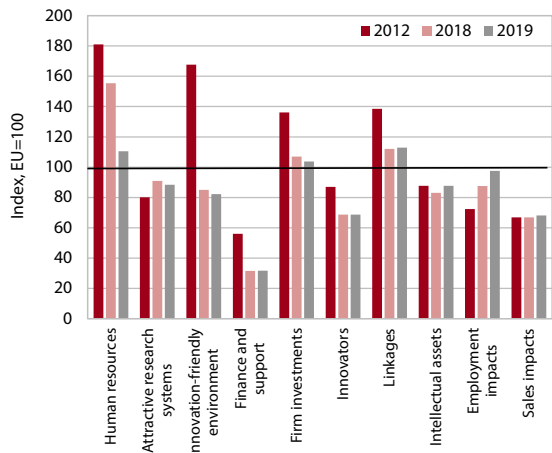
<sup>40</sup> The social responsibility standards used in Slovenia include ISO 26000 and SA8000 (both for social responsibility), ISO 14001 (environmental management system), and OHSAS 18001 (occupational health and safety assessment system) (IMAD, 2018).

<sup>41</sup> The data included in the EII for a certain year are available for the period from t-1 to t-3.

<sup>42</sup> The methodology for measuring the effectiveness of national research and innovation systems of EU Member States did not change in the last measurement for 2019; however, the United Kingdom has not been included in the EU average since then, which has led to its decline. Until 2018, the United Kingdom was among innovation leaders or strong innovators. As a result, the values for other EU Member States changed for the years before 2019 (EC, 2020c).

**of moderate innovators for the second consecutive year.** In 2019<sup>43</sup>, it reached around 85% of the EU average (in 2012 it exceeded it by 2%)<sup>44</sup> and recorded a decline of 15.1 percentage points in the value of EII compared to the EU average, which greatly reduces the chances of achieving the SDS target to be classified in the group of innovation leaders by 2030 (see Indicator 1.9). The fall from the group of strong innovators to the group of moderate innovators as of 2018 was due to the decline in most EII indicators (15 of 27). The biggest setback and widening of the gap with the EU average was in terms of finance and support (Slovenia reached just over 30% of the EU average), especially with regard to public R&D expenditure. Slovenia achieves extremely low values of venture capital, and its ranking also slipped significantly with regard to the innovation-friendly environment, where its deterioration was reflected in the relatively low growth in the number of opportunity-driven entrepreneurs. The deteriorating conditions for innovation are consequently also reflected in a relatively low sales impacts, while the employment impacts strengthened. This may also be related to above-average investment of the corporate sector, as well as again with a slightly improved situation with regard to linkages between different participants (public research institutions and enterprises, B2B).

**Figure 22: European Innovation Index dimensions, Slovenia**



Source: EC, 2020c.

**With regard to digital competitiveness measured by the Digital Economy and Society Index (DESI), Slovenia has achieved progress in recent years, though significantly too small in the context of**

**achieving SDS targets.** In 2015–2020, Slovenia's DESI improved by 34%, but at the same time it increased its lag behind the ninth-ranked country, the SDS target, by two percentage points to 87% of the value of the ninth-ranked Belgium. Furthermore, the lag behind the EU average increased by an additional percentage point and the lag behind innovation leaders by 4 percentage points. In order to achieve the SDS target by 2030, Slovenia should step up its efforts invested over the last five years by more than 50%. According to individual DESI components in the field of human capital, Slovenia is gradually progressing, but it still lags behind the EU average by 2 percentage points and by 28 percentage points behind the innovation leaders (as well as Estonia). Progress was made in the integration of digital technologies;<sup>45</sup> in addition, the quality of digital public services improved, but the use of both public and private (internet) services remains very low and public digital services for businesses remain problematic.<sup>46</sup> The largest decline over the last five years was identified in connectivity, where Slovenia completely lost its comparative advantage (see Indicator 1.11 and IMAD, 2020d), which points to a lack of ambition and investment in digitalisation.

**The number of researchers has increased significantly over the last decade, especially in the private sector, but it still lags behind both the innovation leaders and strong innovators as well as the EU average.** In 2008–2019, their number grew faster than the EU average and the innovation leaders or strong innovators according to the European Innovation Index. This growth is mainly related to more favourable developments in the private sector, where the most researchers are employed.<sup>47</sup> In the public sector, however, developments were largely unfavourable<sup>48</sup>, primarily due to employment restrictions during the global financial crisis, but also due to significant dependence of research funding on variable EU funding. Despite the increase, the total number of researchers per 1,000 working age population in Slovenia in 2018 was still lower than the EU average and that of the innovation leaders and strong innovators.<sup>49</sup> In terms of structure, the employment of researchers in the private sector was relatively high,<sup>50</sup> while the lag was mainly seen in the higher education sector.<sup>51</sup> There are significant differences in the number

<sup>43</sup> The EII for 2019 was calculated based on the data relating to 2016–2019.  
<sup>44</sup> The EII value for Slovenia in 2019 stood at 92.4% of the 2012 EU average and the SDS 2030 target is to rank among the innovation leaders, where the innovation efficiency is above 120% of the 2012 EU average.

<sup>45</sup> With respect to digital technology integration, Slovenia lags behind the group of innovation leaders by 31 percentage points.  
<sup>46</sup> According to this indicator, Slovenia ranks 24<sup>th</sup> among EU Member States; in terms of the quality of public digital services it provides better conditions only than Poland, Croatia, Greece and Romania.  
<sup>47</sup> Such trends were also a result of tax relief for research and development. See the Corporate Income Tax Act (2006) and the Act Amending the Corporate Income Tax Act (2012).  
<sup>48</sup> Their numbers have increased compared to the EU average as well as in the group of innovation leaders and strong innovators average.  
<sup>49</sup> According to OECD estimates (OECD, n.d.)  
<sup>50</sup> The share of researchers in the private sector in the total number of working age population in 2019 lagged behind the innovation leaders only (Eurostat, 2021); the same applies to the number of researchers in corporations per 1,000 population for 2018 (IMD, 2020b).  
<sup>51</sup> The share of researchers in the higher education sector in the total



of researchers within Slovenia: in 2019, there were about three-quarters of researchers in the Zahodna Slovenija cohesion region and a quarter in the Vzhodna Slovenija cohesion region; in the business enterprise sector there were over two-thirds of researchers in the Zahodna Slovenija cohesion region and a third in the Vzhodna Slovenija cohesion region. Moreover, the difference between the two cohesion regions in terms of the business enterprise sector's intensity of investment in R&D is only 0.11 percentage point of GDP, which indicates relatively strong development potential even in the less developed Eastern Slovenija cohesion region.

**There are some shortcomings in the development of human resources, which are important for the technological development of the economy.**

According to the EI (European Innovation Index), Slovenia saw a fall in its advantage over the EU average in human resource development in 2012–2019 and a rise in its lag behind innovation leaders and strong innovators. Adverse trends are associated with lower adult participation in lifelong learning and a decrease in the number of new PhDs<sup>52</sup> (EC, 2020c; also see Indicator 2.3). The number of the latter has been declining since 2014 in the natural sciences and technology, which is important for the development of new technologies (SURS, 2021). Also the number of natural sciences and technology graduates did not reach the 2012 level in 2019 due to there being fewer young people, although their share in the total number of graduates increased. The share of natural science and technology students also increased, but due to smaller generations, their number in 2019 was lower than in 2012, so enrolment in the natural sciences and technology should be promoted even more, including for women, as they rarely enrol in these study programmes.<sup>53</sup> The number of young researchers has also been declining for several years, and their increase in 2018 and 2019 did not compensate for the previous decline of several years (ARRS, 2020c); expressed per 1,000 employed people, it was the lowest in 2008–2019.<sup>54</sup> The measure “Young Researchers in the Economy”, which has strengthened cooperation between higher education and the corporate sector, has not been implemented for several years. Attention should also be paid to the professional development of researchers, especially those at the beginning of their careers, as the implementation of emergency measures adopted by countries reduced the opportunities for

international mobility of researchers, which enables them the acquisition of new knowledge, networking, etc. (OECD, 2021a).

**Investment in digital skills, which are essential for the digital transformation of the economy, is still too low.**

The number of ICT graduates, who are key in the development of the most advanced digital technologies, was lower in 2019 than in 2012 (SURS, 2021) and their share in the total number of tertiary education graduates was lower than the EU average. The level of digital skills of employees was still relatively low in 2019 (Eurostat, 2021), which limits their chances of effectively facing the challenges and opportunities of digitalisation.<sup>55</sup> While the digital skills of employees have improved in recent years, also thanks to above-average investment by businesses in ICT training, it is worrying that in the last three years the share of businesses providing for ICT training of their employees decreased (by three percentage points), especially in the segment of medium-sized enterprises. With the accelerated digitalisation of the economy following the outbreak of the COVID-19 epidemic in 2020, the need for such skills increased; furthermore, a survey conducted in autumn 2020 among Slovenian small and medium-sized enterprises points to low digital skills of employees and low investment of businesses in their development and to difficulties in recruiting new employees with digital skills. This shows that businesses are still poorly prepared for the digital business transformation (DIH and IIBA, 2020),<sup>56</sup> so priority should be given to increasing investment in employee skills development and enrolment in ICT studies (see Section 2.2).

**Research and development (R&D) expenditure has been increasing since 2018, but Slovenia is still lagging far behind.**

In 2019, the volume of R&D investment was nominally the highest to date, but in relative terms, at 2.05% of GDP, it still lagged behind the peak in 2012–2013 by half a percentage point, and since 2016 it has also lagged behind the EU average by 0.2 percentage point of GDP. However, compared to top five countries<sup>57</sup>, the gap, which was only half a percentage point in 2013, again exceeded one percentage point of GDP. In the R&D funding structure, the business enterprise sector exceeded investment (in % of GDP) compared to the EU average until 2016, but in 2017 and 2018 it began to lag behind by EUR 32 million annually and behind the top five EU Member States by EUR 277 million (both as a share of GDP).<sup>58</sup> Government sector

number of working age population in 2019 was lower than the EU average as well as in the group of innovation leaders and strong innovators average, whereas in the public sector it was higher than in these averages (Eurostat, 2021).

<sup>52</sup> Slovenia's deterioration is related to unfavourable trends in the number of new doctors of science, according to SURS data (see Indicator 2.3), and to the fact that until 2016 Eurostat also added masters of science to new doctors of science, while since 2017 the data includes only new doctors of science.

<sup>53</sup> In 2018, the share of women enrolled in science and technology in Slovenia was 30.8% (EU: 30.9%) and in tertiary education overall 57.5% (EU: 53.7%) (Eurostat, 2021).

<sup>54</sup> In 2019, there were 1.07 young researchers per 1,000 working age population (ARRS, 2020b, and SURS, 2020; calculations by IMAD).

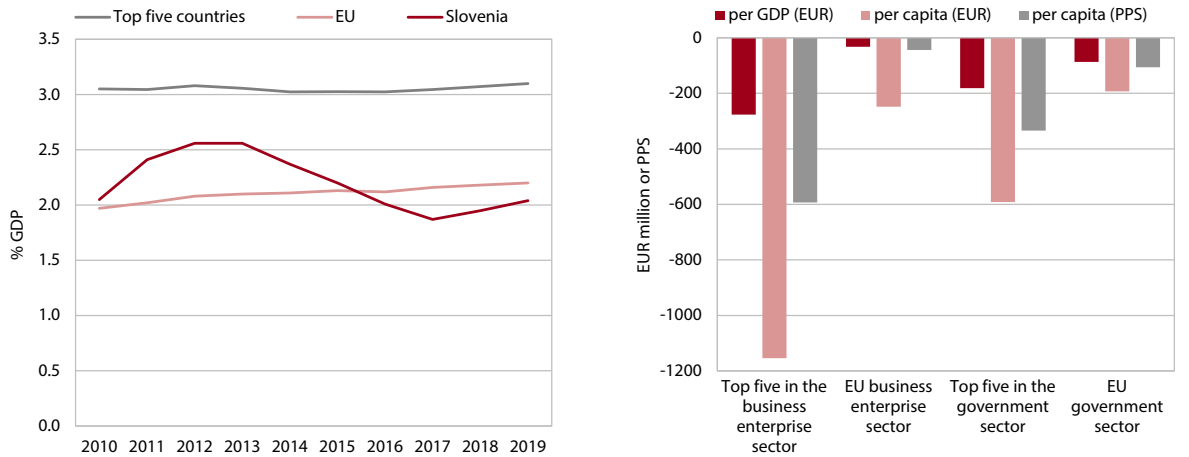
<sup>55</sup> According to a survey among Slovenian businesses, the lack of digital skills is slowing down the spread of digitalisation in businesses (DIH, 2020).

<sup>56</sup> A total of 86% of survey participants plan that it will take more than one year to develop digital skills and 44% more than two years. A total of 77% of businesses invest in the development of digital skills eight hours or less per month per employee (DIH and IIBA, 2020).

<sup>57</sup> Sweden, Finland, Denmark, Germany and Austria.

<sup>58</sup> If the lag is calculated per capita instead of GDP, the lag of business enterprise sector R&D investment behind the top five EU Member States increases to EUR 593 million PPS or current EUR 1,154 million.

**Figure 23: R&D expenditure (left) and Slovenia's lag in business enterprise and government sector expenditure relative to the EU average and the top five EU Member States\* in 2018 (right)**



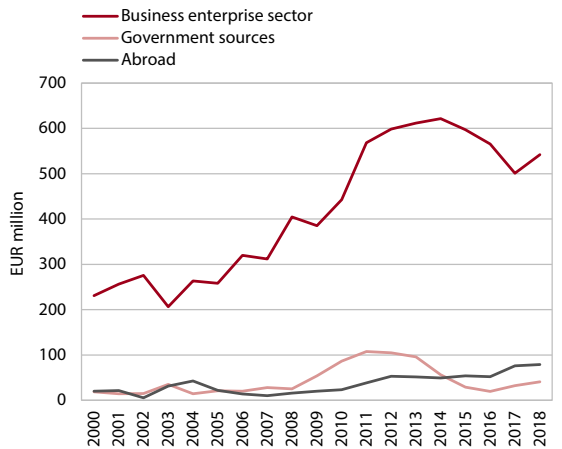
Source: Eurostat, 2021; calculations by IMAD. Note: \* Sweden, Finland, Denmark, Germany and Austria are the top five countries in terms of R&D investment; the data for the last available year are used.

R&D investment has lagged behind the EU average since 2014 by approximately EUR 90 million or by EUR 182 million when compared to the top five EU Member States, both in terms of the share of GDP.<sup>59</sup> As a result, in accordance with the EII methodology, Slovenia achieved the worst result in the finance and support component compared to the EU average in 2012–2019. Unfavourable trends are additionally related to extremely low venture capital expenditure (see Indicator 1.9), which reflects the dynamics of the establishment of new high-tech start-ups. With relatively low R&D investment of the government sector, the business enterprise sector funded in 2019 a total of 61.4% of all R&D expenditure in Slovenia (see Indicator 1.16), which is a high share by international standards (innovation leaders reached 58.4% in 2017).

**During the global financial crisis, the business enterprise sector did not reduce its R&D investment, but even increased it significantly, to which the government also contributed through an active policy, and this should be repeated in the COVID-19 crisis exit strategy.** Business enterprise sector R&D investment funded by corporations has increased significantly over the last decade, due in part to the R&D tax relief introduced in 2007; in addition, since the onset of the global financial crisis, R&D funding of the business enterprise sector from foreign sources has accelerated. In particular, in this period the government accelerated the co-funding of R&D activity in the business enterprise sector, which in the period that followed very likely contributed to the acceleration of R&D investment by the business enterprise sector from own sources.<sup>60</sup>

<sup>59</sup> If the lag is calculated per capita instead of GDP, the lag of government sector R&D investment behind the top five EU Member States increases to EUR 334 million PPS or current EUR 592 million.  
<sup>60</sup> At least according to the high degree of correlation (which in itself does not mean a cause-and-effect relationship), there may be a dynamic

**Figure 24: Business enterprise sector R&D investment by source of funds**

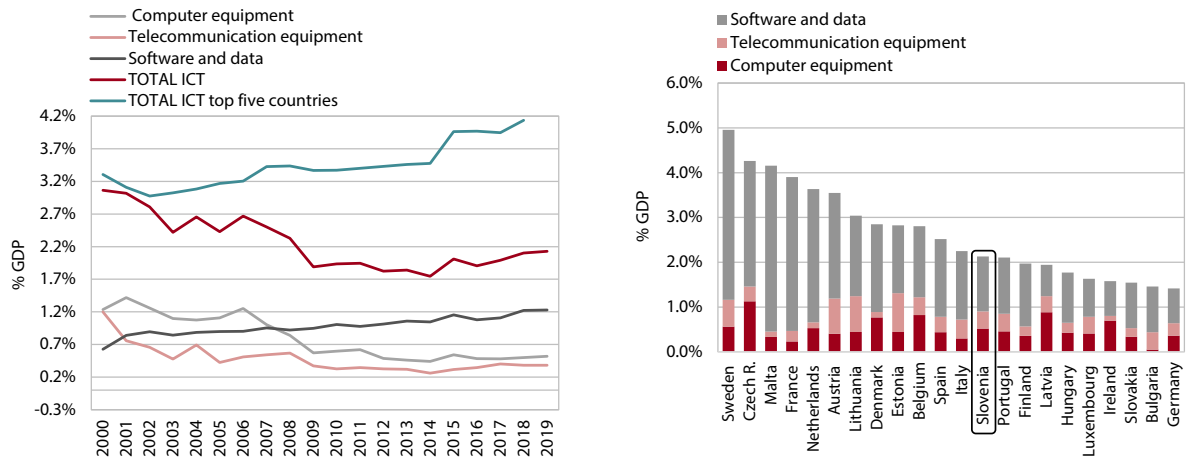


Source: Eurostat, 2020; calculations by IMAD. Note: R&D investment is expressed at constant prices 2018.

**Given the considerable decrease in ICT investment in the last decade, Slovenia lags significantly behind not only the leading countries, but also some competitors.** Average annual ICT investment in the period of economic growth in 2014–2019 was 2% of GDP, down by 0.7 percentage point of GDP relative to the 2000–2008 average, i.e. before the global financial crisis. The decline is the result of reduced investment in telecommunication equipment (by 0.3 percentage point of GDP on average) and especially lower investment in computer equipment, which decreased by 0.7 percentage point on average in terms of share in GDP,

between the government sector investment and business enterprise sector investment from own sources, which under the assumption of a one-year lag stands at 77%.

**Figure 25: Investment of Slovenia and the top five countries\* in ICT (left) and comparison of ICT investment among EU Member States in 2019\*\***



Source: Eurostat, 2021; calculations by IMAD. Note: \* Top five countries in terms of ICT investment: Sweden, Czech Republic, Malta, France and Netherlands. \*\* Where data for 2019 are not available, the last available year is taken into account, as indicated next to the name of the country.

or by almost 60%. Only investment in software and data increased slightly (on average by 0.2 percentage point), which is positive but far from sufficient. In terms of investment, despite their recent growth compared to GDP,<sup>61</sup> Slovenia still ranks among the countries with below-average ICT investment (Figure 25 right). It lags far behind not only some of the leading countries, but also a number of direct competitors. In order to move closer to the volume of investment of competitor countries such as the Czech Republic, Lithuania or Estonia, Slovenia would have to increase ICT investment by almost 60%, and to catch up with the leading countries such as Sweden, Netherlands or Austria, it would have to almost double it.

**In 2020, significant progress was made in patents and the positive trend continued in trademarks, but Slovenia still continued to lag far behind in registered designs, which also reflects low investment in design.** According to provisional EPO data, last year Slovenian applicants filed the most patent applications in 2008–2020. This has significantly reduced the lag behind the EU average and returned to the 2012–2015 levels.<sup>62</sup> The positive trend of EU trademark applications per million inhabitants continued in Slovenia and thus exceeded the EU average for the second consecutive year. This could also be related to the long-term trend of accelerating investment in advertising and market research (collectively referred to as branding).<sup>63</sup> More

worrying are the data for registered Community designs (see Indicator 1.18) and related investment in design. This is extremely important for the success of the corporate sector; corporations that deal with design most profoundly and intensively are especially standing out in terms of performance (Sheppard et al., 2018). In contrast to branding investment, in the 15-year period between 2002 and 2017, Slovenia reduced the share of design investment in total value added (by 0.8 percentage point). If, according to INTAN data, it was the leader in this field until 2003, less and less attention has been paid to it since then, which could be at the expense of increasingly short-term orientation and emphasis on branding in the narrower sense. Slovenia invests in design and branding together (in terms of added value) approximately as much as the leading three countries<sup>64</sup> (just over 3%), but it lags behind them by 0.6 percentage point in terms of design investment, i.e. already by more than a quarter.

**Digitalisation is increasingly showing a growing gap between large and all other enterprises, which is particularly problematic in the group of medium-sized enterprises.** According to the digital index of businesses, which is estimated based on 12 ICT indicators (SURs, 2020), 77% of businesses with more than 10 employees achieve a very low or low digital index, but this share decreased by five percentage points between 2018 and 2020. Among the most digitally successful are large enterprises, of which 56% achieve a high and 15% a very high digital index, with large enterprises increasing their total share by over 10 percentage points over the last two years. The rate of digitalisation is only slightly lower for medium-sized enterprises (an increase of

<sup>61</sup> This is especially indicated by survey data (see IMAD, 2020d).  
<sup>62</sup> Slovenia lagged behind the EU average the least in 2008, when it reached 58.5%, while in 2020 it reached 53.7% of the average number of patent applications with the EPO regarding the years of filing the first application per million inhabitants.  
<sup>63</sup> Expressed as a share of total value added. The estimate is based on INTAN data available up to 2017, which show that this share increased by 0.9 percentage point over a 15-year period (IMAD calculations). For a more detailed description of the methodology, see Corrado, Haskel,

Jona-Lasinio and Iommi, 2016.  
<sup>64</sup> Sweden, Finland and Denmark. Data are available for 18 EU Member States, the United Kingdom and the United States.



seven percentage points), but from a significantly worse starting point, as only 33% of medium-sized enterprises have a high and only 3% a very high digital index.<sup>65</sup> According to SURS data, in the digital transformation process only 13% of businesses report that it is going smoothly, and among the key obstacles the lack of staff and financial resources are pointed out, which should be encouraged by the government in addition to providing content support<sup>66</sup> through the digital and innovation ecosystem. Businesses also consider the ability to implement changes to be problematic, which is confirmed by the DIH and IIBA (2020) study, which shows too much focus on regular work as the most important obstacle to digitalisation.<sup>67</sup> A total of 10% of businesses have a digital strategy for business transformation, while among large enterprises this share is 40% and among small and medium-sized it is 8% and 17% respectively. Of particular concern is not only that 56% of small enterprises estimate that digital transformation is not even essential for their good results, but also that 43% of medium-sized enterprises, where digitalisation is at least as a rule almost inevitable, share this estimate.

**With regard to informatisation, the situation is encouraging, and with respect to robotisation the excellent dynamics of recent years continues in the corporate sector.** In 2020, Slovenia improved its ranking within the EU in the informatisation of business<sup>68</sup> by one place (to 13<sup>th</sup> place), which, according to only half of the updated data<sup>69</sup>, shows a positive trend compared to the previous measurement. Both small and medium-sized enterprises remained within the average (14<sup>th</sup> and 13<sup>th</sup> place respectively), while large enterprises were above the average at 7<sup>th</sup> place, even compared to large enterprises in the EU. An even more positive situation is shown by the data on the use of industrial and service robots, where between 2017 and 2019 Slovenia advanced by one more place within the EU and had the seventh highest share of enterprises using robots. Slovenia was not only the leader among large enterprises, but also among medium-sized enterprises in the period of active development policy, advancing from 6<sup>th</sup> to 2<sup>nd</sup> place in the EU<sup>70</sup>. In manufacturing, Slovenia ranked 8<sup>th</sup> in 2019, with the electrical, mechanical and automobile industries standing out (5<sup>th</sup> place), while

other manufacturing industries were closer to the average (between 11<sup>th</sup> and 13<sup>th</sup> place). Kearney (2020) finds, albeit in a limited sample of enterprises, that in connection with the COVID-19 crisis, 96% of surveyed enterprises expect further acceleration of robotisation and automation.

**The corporate sector, especially small and medium-sized enterprises, is increasingly lagging behind in digital transformation, i.e. the integration of technology (4.0), the introduction of smart factories and new business models, and the promotion of disruptive innovations.** Official data on integration, especially regarding the most demanding technology, are more limited, but they show a much less positive picture, particularly among small and medium-sized enterprises. Thus, new data on the use of the internet of things in enterprises place Slovenia within the EU average,<sup>71</sup> which does not apply to large enterprises, which rank fifth in the group of innovation leaders such as Finland, Austria and Denmark. The lag of the group of small and medium-sized enterprises behind the three most successful countries in this field stands out at 17 and 16 percentage points respectively.<sup>72</sup> A similar situation pertains with regard to the use of big data, which confirms the warnings of DIH and IIBA (2020) about the troubling situation among SMEs even after the epidemic, as not even one enterprise mentioned a digital project to introduce artificial intelligence in the survey, with their focus remaining on e-marketing and online stores. This speaks to the urgent need for deepening of digital transformation processes (see IMAD, 2020d) by focusing on strengthening competitiveness, generating higher value for the customer and implementing new business models, as well as a greater emphasis on disruptive innovations.<sup>73</sup> All of the above requires a more flexible and agile organisation of processes with a greater emphasis on innovation, where in addition to the lack of competencies among SMEs<sup>74</sup>, the fact that even

<sup>65</sup> Among small enterprises, the expected share of businesses with a low or very low digital index is even higher, reaching 81%, having fallen by only four percentage points in the last two years, while at the same time just over a percentage of small enterprises have a very high digital index. In this group of businesses, it is most difficult to estimate the share of business for which digitalisation will not be relevant also in the future.

<sup>66</sup> Content support in terms of the transfer of good practices is the third most common thing pointed out by SMEs in the DIH and IIBA (2020) surveys after financial incentives and the provision of qualified staff.

<sup>67</sup> Which supports the findings from the Productivity Report 2020 (IMAD, 2020d) on the insufficient development orientation of investment also on the part of the corporate sector, which is too focused on current operations.

<sup>68</sup> IMAD, 2020e.

<sup>69</sup> Three indicators refer to 2020, two to 2019 and one has not been updated since 2017.

<sup>70</sup> Small enterprises have the tenth highest level of robotisation in the EU.

<sup>71</sup> Medium-sized enterprises are within the EU average, while small enterprises with a 14% share in the use of the internet of things lag behind the EU average by two percentage points.

<sup>72</sup> The shares of small and medium-sized enterprises that use the internet of things in Slovenia stand at 14% and 17% respectively, while the average of the three most successful among small enterprises is 31% (Finland, Austria and Belgium) and 43% among medium-sized enterprises (Finland, Austria and Latvia).

<sup>73</sup> In the DIH and IIBA survey (2020), only 17% of SMEs see higher value for the customer as a key added value of digital business transformation; the shares of knowledge of digital business models are also low (60% of SMEs do not know or know little about digital platforms). The same study identified the lowest level of development of disruptive innovations as an accelerator of transformation, which is not surprising given the fact that half of enterprises do not even know about the concept of digital convergence at all.

<sup>74</sup> Managers of enterprises supposedly have the least developed skills in »innovation in the digital economy«, »digital mindset« and »agile leadership«; however, the Kearney survey (2020) shows a much more positive situation in terms of business readiness to permanently implement more flexible approaches to organisation. According to this survey, 64% of enterprises expect that they will permanently implement any positive experiences of epidemic-related measures aimed at increasing work flexibility into their operations. In this process, a significant limitation may be the digital skills of employees,

among the most innovative enterprises the segment of medium-sized enterprises has the most problems.<sup>75</sup>

**The innovation activity of enterprises (IAE) in 2016–2018 returned to the pre-decline levels in 2010–2016, which is also related to the renewed drawing of EU funds from Slovenia's Smart Specialisation Strategy.**

According to our assessment, the improvement shown by the results of the latest SURS survey on innovation activity for 2016–2018<sup>76</sup> also stems from higher investment in innovation activity, including in R&D, especially in connection with the revived development policy after 2016.<sup>77</sup> There were 48.6% innovation-active enterprises in Slovenia in 2016–2018<sup>78</sup>, which is 8 percentage points more than in 2014–2016<sup>79</sup> (see Indicator 1.17). Several enterprises have introduced product and business process innovations at the same time, which indicates the complementarity of both types of innovations and their interdependence and intertwining. Exclusive product innovation was introduced by 9.8% of IAEs, which was 4.3 percentage points above the EU average, as well as by innovation leaders and strong innovators. Only slightly more IAEs (10.3%) had put into use only business process innovation, which was 6.4 percentage points less than the EU average and is in line with the findings on too slow digital transformation. As with respect to digitalisation, the results of the last IAE measurement show that, in addition to small enterprises, medium-sized enterprises lag behind the EU average, whereas large enterprises maintained their advantage compared to the EU average.

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as in ICT training small and medium-sized enterprises lag far behind large enterprises; in 2020, 84% of large enterprises and only 21% of small enterprises and 41% of medium-sized enterprises provided digital training for their employees.

<sup>75</sup> Among the most innovation-active enterprises, medium-sized enterprises have the lowest share of those with at least one person among employees who is 100% engaged in innovation; in addition, medium-sized enterprises most rarely use innovation concepts/methods/tools, such as "design thinking" (Ugovšek, 2020).

<sup>76</sup> The survey includes enterprises with at least 10 employees and is conducted every other year.

<sup>77</sup> This was based almost exclusively on the launch of the 2014–2020 EU financial perspective or the incentives originated from the Slovenia's Smart Specialisation Strategy.

<sup>78</sup> Due to changes in methodology, the data of the last innovation-intensity measurement expressed in the IAE share among all enterprises are not directly comparable with the data of previous periods, because the definition of innovation was changed (SURS, 2020). The increase in innovation intensity in 2016–2018 is thus partly due to methodological changes.

<sup>79</sup> It is a comparison according to the previously valid definition of innovation (technological and/or non-technological), which was derived from the Oslo Manual 2005.

## / 2

# Learning for and through life

For many years, Slovenia has been characterised by high participation of young people in education, which is reflected in the gradual improvement of the educational structure of adults. The achievements of young people in mathematics and science literacy are also very high. In 2020, education was strongly marked by the COVID-19 epidemic, so it is necessary to consider how to effectively compensate for any gaps in knowledge and skills. Distance learning of children and young people has also encouraged the greater use of ICT in education, and the great flexibility of the education system has also come to the fore. However, with the educational level of the population improving, not enough has been done in recent years to eliminate disparities in knowledge and skills in the labour market. Therefore, especially in the face of unfavourable demographic trends, the development of appropriate skills in young people and adults that would meet not only the current but especially the future needs of society and the economy (in relation to the ageing population, the need for green and digital transformation, etc.) is needed. In recent years, the structure of those enrolled in tertiary education shifted towards an increased share of science and technology and health and social security, but with smaller generations of young people, the supply does not meet the demand. Attention also needs to be paid to the development of adult skills, where the challenges are to strengthen lifelong learning and retraining. All this influences the forecasting of medium-term needs for knowledge and skills, which is still being established in Slovenia. The COVID-19 epidemic also severely affected culture in 2020, negatively impacting its accessibility and opportunities for promotion abroad, but it also showed the potential of digitalisation in culture. The deteriorating situation of the cultural and creative sector may lead to weakened potential for social and economic development. For many years, the development of language resources and technologies for the promotion and development of the Slovenian language has been too slow, and the book-reading trend has also been unfavourable.

2.1 Education

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

The aim is to promote high-quality and accessible learning for and through life in order to improve the competitiveness of the economy and the prosperity of society. The goal will be realised through the promotion of learning for and through life across the entire population, with incentives for those with lower educational attainment and other marginalised groups to participate in education, with improvement of the functional literacy of young people and adults, by making sure education is efficient and of a high quality, by linking the education system to the economy, and by developing skills to improve employability. The realisation of 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 %	11.2 (2019)	10.8 (2019)	19
Share of population with tertiary education in %	33.3 (2019)	31.6 (2019)	35
PISA results, ranking among EU Member States	Mathematical literacy: 5 <sup>th</sup> Scientific literacy: 4 <sup>th</sup> Reading literacy: 9 <sup>th</sup> (2018)		Ranked among the top quarter of EU Member States

For many years, Slovenia has been characterised by high participation of young people in upper secondary and tertiary education, which leads to the gradual improvement of the educational structure of the adult population. With the increase in the share of young people with upper secondary and tertiary education, the share of adults (25–64 years) with at least upper secondary and tertiary education (Indicator 2.1) has been increasing for many years as young people move to older age groups (a demographic effect). The share of adults with upper secondary education is well above the EU average,<sup>80</sup> and the share of people with tertiary education is slightly above average (see Indicator 2.1), though still much lower than the most successful countries in this field (Slovenia ranks 15<sup>th</sup> in the EU). Its further increase thus represents one of the challenges for a faster rise in the competitiveness of the economy. A very favourable situation by international standards is shown by the Cedefop 2020 skills development index, according to which Slovenia ranked fourth among EU Member States.<sup>81</sup> The participation of children in

pre-school education, which enables them to prepare for basic education, is also increasing and is high in international comparison. The educational structure of the population improved further in the second and third quarters of 2020;<sup>82</sup> however, the negative effects of distance learning (Box 1) on school performance results and early school leaving, especially for vulnerable groups of pupils and students,<sup>83</sup> and consequently on their employment opportunities and social inclusion (Section 3.2) could arise in the future. Therefore, it is necessary to consider how to effectively fill any gaps in knowledge and skills.

In previous years, knowledge quality indicators for young people were good by international comparison. The quality of pre-school education is good by international comparison, the ratio between the number of children and the number of teachers and teacher assistants is more favourable than the EU average (Eurostat, 2021), and Slovenia is one of the few EU Member States where it is mandatory for pre-school teachers and teacher assistants to receive continuous professional training (EC/EACEA/Eurydice, 2019). Quality and accessible pre-school education (see Section 3.2) allows children to prepare well for basic school.

<sup>80</sup> In 2019, it was 88.8% (EU average 78.4%), and it was consistently higher for men than women (Eurostat, 2021).

<sup>81</sup> The index consists of the following indicators: pre-primary pupil-to-teacher ratio, the share of the population aged 15–64 with at least upper secondary education, reading, maths and science scores achieved by 15-year-olds in the PISA survey, participation of the population aged 25–64 in lifelong learning, the share of enrolment in upper secondary vocational and technical education in the total number of enrolment in upper secondary education, and the share of the population aged 16–74 with high computer skills (Cedefop, 2020a).

<sup>82</sup> The share of the adult population (25–54 years) with at least upper secondary education was 89.9% in the second quarter of 2020 (second quarter of 2019: 88.8%) (Eurostat, 2021).

<sup>83</sup> The risk of early school leaving is also pointed out by a study by Di Pietro et al. (2020).

### **Box 3: The impact of the COVID-19 epidemic on education**

**The transition to the temporary provision of remote education at the basic and upper secondary levels<sup>1</sup> during the COVID-19 epidemic was facilitated by relatively good ICT equipment at schools and by a number of activities and adjustments introduced in education.** Prior to the COVID-19 epidemic, basic and upper secondary schools did not use digital technology regularly despite having good digital connectivity and equipment (EC, 2019a); in view of the new situation, however, the use of digital technology has significantly increased. According to the EC (2020a), the country's response was effective, as remote education mostly worked well – this was made possible by digital teaching materials, established networks for the exchange of good practices and videos on how to teach online. The Ministry of Education, Science and Sport (2020a in 2020b) also prepared several instructions and recommendations for providing remote education.<sup>2</sup> Schools and teachers also received support with regard to remote teaching from the National Education Institute of the Republic of Slovenia,<sup>3</sup> the Institute of the Republic of Slovenia for Vocational Education and Training,<sup>4</sup> the Centre for School and Extracurricular Activities (CŠOD, n.d.), and higher education institutions.<sup>5</sup> Teachers, pupils and students have all experienced certain positive aspects of remote schooling. A survey carried out by Rupnik Vec et al. (2020) showed that most basic and upper secondary school teachers find that they can be equally or more creative when teaching remotely compared to when teaching in a classroom – a significant number of teachers in fact said that remote teaching allows for more creativity.<sup>6</sup> During the first wave of the epidemic, pupils and students particularly highlighted the independent organisation of school work as an advantage of remote schooling, some found the interesting tasks set by their teachers to be challenging, and young pupils (grades four to six) often stated that their parents helped them with their studies. Another positive development is that remote schooling has demonstrated the potential for the use of ICT in education and has encouraged state investments in ICT.<sup>7</sup> At the pre-school level, many professionals maintained contact with the parents of children who did not attend kindergartens during the epidemic, provided emotional support and carried out virtual activities (Primožič and Makovec Žagar, 2020).

**In the provision of remote education at the basic and upper secondary levels, many obstacles have emerged in relation to the accessibility and quality of such education.** Issues have arisen with regard to both the non-coverage of some areas with fixed broadband infrastructure and disruptions to the functioning of online learning environments. With regard to schools, it showed in particular that teachers lacked competence in providing remote education (Rupnik Vec et al., 2020), while pupils and students reported a shortage of suitable ICT equipment,<sup>8</sup> a decrease in motivation to learn, a decline in the understanding of covered topics and in the quality of acquired knowledge, fewer social contacts with peers (Di Pietro et al., 2020; Uršič and Puklek Levpušček, 2020; OECD, 2020b), an increase in mental health problems, and a decline in motor ability (see Section 3.1). Socially disadvantaged persons, immigrants and other vulnerable groups with poorer conditions for learning at home than their peers (see Section 3.2),<sup>9</sup> and pupils with special needs found themselves in distress. A lack of adequate ICT equipment also became apparent and was mitigated through state measures<sup>10</sup> and the help of NGOs and humanitarian organisations. All of the above has put some pupils and students in an unequal position<sup>11</sup> (see Section 3.2), which is why the provision of accessible and quality remote education should be addressed as a matter of priority. With regard to upper secondary vocational and technical education, there were difficulties not only with teaching classes but also with the provision of practical training (CPI, 2020a).

<sup>1</sup> See ordinances on the temporary prohibition of gatherings of people in educational institutions and universities and independent higher education institutions (2020 and 2021).

<sup>2</sup> The National Education Institute Slovenia prepared guidelines in which schools are called upon to pay special attention to vulnerable groups of pupils with learning and other difficulties. In order to ensure equal opportunities for remote education, the DIGI School (DIGI Šola) project was launched, special assistance was provided for Roma children and their parents, immigrant pupils and students, as well as pupils and students with learning difficulties and special needs, and RTV Slovenia broadcasted an educational programme.

<sup>3</sup> The National Education Institute Slovenia (2020a) issued recommendations and guidelines for remote schooling for primary schools.

<sup>4</sup> The Institute of the Republic of Slovenia for Vocational Education and Training (2020b) drafted several recommendations for the provision of vocational and technical education and training.

<sup>5</sup> At the University of Maribor, the Faculty of Education, the Faculty of Natural Sciences and Mathematics, and the Faculty of Arts set up a website for educational support for pupils, students and basic and upper secondary school teachers, called [razlagamo.si](http://razlagamo.si), to help with remote education.

<sup>6</sup> Around one-third of general teachers and more than 40% of subject teachers and upper secondary school teachers find that they are more creative when teaching remotely than when teaching in a classroom.

<sup>7</sup> Slovenia has adopted the programme "COVID-19 – the provision of ICT infrastructure as the basis for remote education" (SVRK, 2020) and a measure to subsidise the preparation of materials for the provision of digital resources to enable remote education (SIO, 2020).

<sup>8</sup> The problem that arose was mitigated through state measures and the help of NGOs and humanitarian organisations (IMAD, 2020b).

<sup>9</sup> Some pupils and students, especially Roma and immigrants, did not attend classes and could not be reached. In May 2020, around 1,000 basic school pupils (mostly Roma and pupils with migrant backgrounds) and around 1,000 upper secondary school students did not participate in remote education (EC, 2020a).

<sup>10</sup> The MIZŠ distributed several computers and other equipment to socially disadvantaged pupils (MIZŠ, 2020a and 2020b).

<sup>11</sup> Various studies, such as those conducted by the OECD (2020b, 2020f and 2020g) and the EC (2020b), point to an increase in inequalities between pupils and students.



**University students assessed remote learning as less effective, but they also identified some positive aspects.** In higher education, a number of adjustments to studies were adopted (MIZŠ, 2020c). Higher education institutions moved their courses online and lowered the requirements for progression (EC, 2020a). The majority (about three-quarters) of students are in favour of remote learning and were quite satisfied with it – among the positive aspects they highlighted the choice of digital tools and teachers’ commitment and competences (ŠOS, 2020). In the evaluation conducted by the Faculty of Health Sciences, students highlighted as an advantage the opportunity to manage student workload on their own, greater independence and learning about new digital tools (University of Ljubljana, Faculty of Health Sciences, 2020). In addition to the advantages, there were also some disadvantages of remote learning. Higher education institutions had difficulties, especially in relation to the provision of laboratory and practical work (EC, 2020a), and they drew attention to the reduced amount of knowledge acquired by students during remote learning (University of Ljubljana, 2020); students assessed remote learning as less effective (ŠOS, 2020) and of poorer quality (ŠOS, 2021), which could result in negative effects on students’ knowledge. Due to the lower supply of student work, the deterioration of the financial situation was also a problem for students, especially those from socially disadvantaged families. The state paid a one-off solidarity bonus to students.<sup>12</sup>

**During the COVID-19 epidemic, fewer adult education programmes were carried out than planned, but there were more opportunities to participate in various online educational events and it became apparent that the adult education system was very flexible.** In the first wave of the COVID-19 epidemic, it was estimated that between 50% and 70% of education programmes were implemented remotely (EC, 2020b). The main focus was on providing formal education, while a considerable part of non-formal adult education was sidelined – especially the programmes for literacy development and the integration of migrants into society, study clubs (Možina et al., 2020), programmes for the elderly (UTŽ, 2020), and informal learning. Setbacks in implementing education programmes were mainly related to the inadequacy of ICT equipment and teachers’ lack of competence in remote teaching. Participants, especially from vulnerable groups, experienced setbacks with regard to inadequate ICT equipment at home and the inability to use it and also reported poor learning motivation. On the positive side, remote education has stimulated the development of new didactic approaches (Možina et al., 2020) and evidenced the exceptional innovation and flexibility of some providers of adult education.<sup>13</sup> Some of the activities that are important for promoting a culture of lifelong learning (Lifelong Learning Week, Learning Parade) were carried out at a later date. The COVID-19 epidemic also showed the importance of remote education in ensuring access to education, which was also noted by the OECD (2020d), which further emphasised the importance of developing didactic approaches, training teachers in remote teaching and establishing quality assurance mechanisms for this type of education. At the same time, there were many opportunities for individuals with access to ICT to participate in Slovenian and foreign online education programmes and other events. However, individuals without a computer or relevant digital skills, especially the elderly, were excluded from such education programmes.

<sup>12</sup> Act Determining the Intervention Measures to Contain the COVID-19 Epidemic and Mitigate its Consequences for Citizens and the Economy (ZIUZEOP), 2020, and the Act Determining Intervention Measures to Assist in Mitigating the Consequences of the Second Wave of COVID-19 Epidemic, 2020.

<sup>13</sup> A great deal of innovation and flexibility was shown by study clubs that, in the summer and autumn, came up with new ways of carrying out their activities and adapted their contents. Over 90% of study circles completed their educational activities in accordance with the plans (SIAE, 2021).

According to the PISA 2018 survey,<sup>84</sup> performance in reading, mathematics and science of 15-year-olds, which are an indirect indicator of the quality of education, were above average by international comparison, which was made possible by relatively good material and staffing conditions for teaching in schools (see Indicator 2.4). According to the TALIS international survey (2018),<sup>85</sup> these results were also favourable at the level of basic education, and Slovenian teachers assessed themselves as more open to innovations in teaching practices than the average of teachers in the 23 EU Member States that are members of the OECD (OECD, 2019b). However,

the temporary provision of remote education (Box 3) during the epidemic could have a predominantly negative impact on the quality of education<sup>86</sup> and on the knowledge of pupils and students,<sup>87</sup> in particular those from a socially disadvantaged background (see Section 3.2). It could also hinder the development of social and practical skills, which may result in young people

<sup>84</sup> In Slovenia, 15-year-olds generally attend upper secondary schools.  
<sup>85</sup> The TALIS survey (Teaching and Learning International Survey), conducted by the OECD, aims to analyse and develop policies in the field of education.

<sup>86</sup> In Slovenia, the decrease in the amount of education during the first wave of the COVID-19 epidemic was one of the largest among the OECD countries (Hanushek et al., 2020), and remote education also had a negative impact on children's physical activity and health, obesity, and social contacts with peers.  
<sup>87</sup> A study conducted by the Educational Research Institute (2021), which included 70 pupils ranging from grades six to nine of one of the basic schools in Slovenia, showed that, in the course of remote schooling, pupils' learning outcomes deteriorated and the number of pupils who do not meet the minimum required level of knowledge increased.

lacking suitable skills when entering the labour market. Overcoming these problems in order to further improve the quality of education and countering the influence socio-economic background on learning outcomes will only be possible through greater investment in education, which has been low in recent years (see Indicator 2.5).

**As a result of the COVID-19 epidemic, the long-standing and mostly favourable trends in international mobility of students in tertiary education programmes were interrupted in 2020.**

Study exchanges and traineeships abroad allow students to gain practical experience, improve their knowledge of foreign languages, come into contact with different cultures and so on, which is important for employability, and foreign students can – if they decide to remain in the country where they studied – boost the supply of workers in the labour market of that country. In 2008–2019, both the number of Slovenian students studying or participating in traineeships abroad and the number of foreign students in Slovenia under the Erasmus+ programme, which is the main mobility programme in tertiary education in the EU, mostly continued to increase.<sup>88</sup> The trends relating to long-term international mobility of Slovenian students studying abroad<sup>89</sup> and foreign students studying in Slovenia were also favourable.<sup>90</sup> According to various studies (OECD, 2020b; European Universities Initiative, 2020; EUA, 2020), the COVID-19 epidemic had a negative impact on international student mobility in 2020. In Slovenia, this has become apparent in the implementation of the Erasmus+ programme, as the number of students studying or participating in a traineeship abroad and the number of foreign students in Slovenia has decreased (CMEPIUS, 2020). At the same time, the COVID-19 epidemic, which has accelerated the implementation of remote education, provides an opportunity to internationalise the higher education system, develop new online programmes and attract more foreign students. In the future, the possibility of studying abroad will also be affected by the withdrawal of the United Kingdom from the Erasmus+ programme (MIZŠ, 2021a).

**Disparities in knowledge and skills have a long-term negative impact on potential social and economic development.** Before the COVID-19 epidemic, more and more companies faced difficulties in finding suitable staff, which is associated with a general labour shortage

caused by demographic change, a high labour demand during economic growth, a lack of interest in certain professions among young people and a low prestige of some professions (Indicator 2.3 and Indicator 2.4) and with cultural patterns,<sup>91</sup> traditional influences and the level of education of parents (Hribar Milič, 2020). Although there were notably fewer companies impacted by these difficulties in 2020 due to the epidemic and the economic downturn, a third of all companies and just over half of large companies still experienced such problems (Figure 26 left). In addition to the long-lasting shortage of some profiles with an upper secondary vocational and technical education,<sup>92</sup> who are mostly employed in the business sector, and workers in healthcare, the COVID-19 epidemic caused an increase in the labour market supply, especially in the supply of workers in the accommodation and food service activities and tourism sectors and low-educated workers (ESS, 2020d; see also Indicator 3.19), which may present a potential workforce in the so-called deficient professions. Disparities in the labour market impede fast economic and social development and have a negative impact on employment. They should therefore be given priority in the context of lifelong career guidance<sup>93</sup> and retraining aimed at taking up occupations that are in short supply and acquiring skills for which an increased demand is expected in the future (for example because of the digital and green transformation of society and economy, ageing of the population, etc.). For this reason, it is essential to be familiar with not only the current labour market needs, but also the medium-term ones. Information on short-term needs is already provided by the Employment Forecast and the Occupational Barometer, whereas a system for medium-term forecasting of knowledge and competence needs (i.e. the competence forecasting platform) is still in development. In relation to the skills necessary in the post-epidemic period, the OECD (2019d) and the EC (2020c) highlight the need to develop digital and sustainable skills, creativity and entrepreneurship, and social skills among young people and adults (see Box 2). The above platform, which is one key measures of Smart Specialisation in the field of human resource development (SVRK, 2017), could also have a positive impact on the responsiveness of the education system to the estimated future needs of the labour market in terms of knowledge and skills. Another option that can significantly contribute to resolving disparities in the labour market is the recognition of informally acquired knowledge (acquisition of national professional qualifications).

<sup>88</sup> According to data from the CMEPIUS (2020). Under the Erasmus+ programme, a study exchange abroad can last a minimum of three months (i.e. one trimester) and a maximum of one year, while a traineeship can last a minimum of two months and a maximum of one year (EC, n.d.).

<sup>89</sup> Long-term mobility or diploma mobility is characterised by the fact that a student goes abroad for a longer period of time (usually for the entire period of study) and obtains a diploma abroad. In 2018 (latest data), the share of Slovenian students studying abroad was 4.3% and was slightly higher than the EU-23 average (3.8%) (OECD, 2020a).

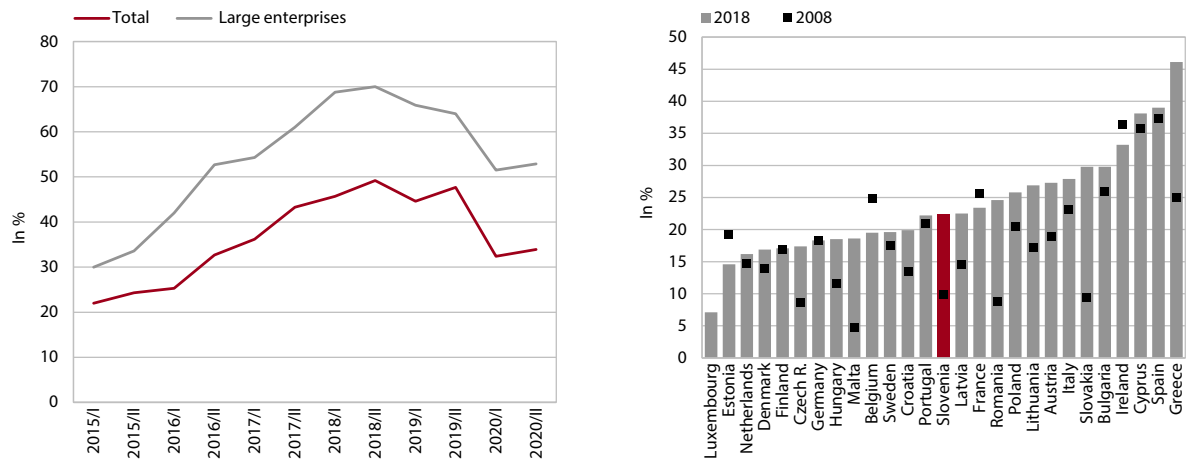
<sup>90</sup> In the 2019/2020 academic year, 8.4% of all students enrolled in tertiary education in Slovenia were foreigners (with foreign citizenships) (SURS, 2021; calculations by IMAD).

<sup>91</sup> Hribar Milič (2020) draws attention to the cultural pattern »if you do not study, you will have to toil«, which is present in society.

<sup>92</sup> According to the data from the Employment Forecast 2020 / II (ESS, 2020b) and the Occupational Barometer (ESS, 2020c).

<sup>93</sup> Due to the deteriorating labour market situation following the outbreak of the COVID-19 epidemic, the OECD (2021) highlights the need to strengthen career counselling services.

**Figure 26: Lack of suitable workers for employment (left) and the share of young people (aged 25–34) with tertiary education employed in occupations for which a low-level or an upper secondary education is sufficient, in %**



Sources: ESS, 2020a and b, 2019a and b, 2018a and b, 2017a and b, 2016a and b, and 2015 (figure on the left) and EC/EACEA/Eurydice, 2020; Eurostat, 2018 (figure on the right).

**Despite positive shifts in the structure of those enrolled in tertiary education, the supply of graduates in some fields greatly differs from demand.** In recent years, the employment rate of young people with a tertiary education has mostly been increasing. However, since the beginning of the global financial crisis in 2008, the share of young people (aged 25–34) with tertiary education employed in occupations for which an upper secondary or a low-level education is sufficient has also increased significantly (Figure 26 right). Apart from the oversupply of some professional profiles with tertiary education,<sup>94</sup> there is a shortage of graduates with suitable tertiary education in the labour market. As a result of a decrease in the number of enrolled students, especially due to small generations of young people, the supply of graduates in science and technology, health and welfare did not meet demand in recent years, despite an increase in enrolment in these areas of education (see Indicator 2.2). With the outbreak of the COVID-19 epidemic, the shortage of adequate healthcare professionals and social care workers came to the fore, manifesting as insufficient capacities of the healthcare and long-term care systems during the epidemic (Section 3.1). Disparities in workers with tertiary education are related to the introduction of the Bologna Process,<sup>95</sup> the insufficient number of places in some study programmes, a lack of interest in certain study programmes among young people,<sup>96</sup> and

the inadequate cooperation between higher education and the economy.<sup>97</sup> The latter could also be improved by strengthening some of the measures that have proved successful in recent years.<sup>98</sup> A step in the direction of monitoring the employment of graduates was made with the introduction of a system for monitoring the employability of higher education graduates at the Ministry of Science, Education and Sports, which will be fully operational in 2022.<sup>99</sup> Taking into account the career platform data on estimated future needs in terms of knowledge and skills, the development of new education programmes should be properly addressed and existing study programmes should be kept up to date, for example in view of the urgent transition to a green and digital economy and the adaptation to demographic change (see Sections 1.2 and 3.1).

**The long-lasting decline in the participation of adults and employees in lifelong learning is extremely unfavourable in terms of addressing changes in the labour market and from the point of view of development challenges and the epidemic.** In 2019, the participation in lifelong learning was far below the SDS 2030 target (Indicator 2.6), and in the second quarter of 2020, i.e. during the first wave of the COVID-19 epidemic (see Box 3), it further decreased sharply (Figure 28 left). Such trends reduce the opportunities for adults to participate in society and face changes in the labour market (see Section 3.3). In particular, the participation

<sup>94</sup> According to the Occupational Barometer data for 2020, Slovenia recorded an oversupply of certain social sciences and humanities graduates and of professionals in agriculture, forestry and fisheries (ESS, 2020).

<sup>95</sup> Since the introduction of the Bologna Process, the number of first-cycle graduates has increased; the Bologna first-cycle study programmes have a shorter official duration than pre-Bologna undergraduate programmes, which may negatively affect Bologna graduates' opportunities for employment in high-paying jobs.

<sup>96</sup> For details, see data on enrolment places and applications for higher education study programmes at the University of Ljubljana, Higher Education Application and Information Service, 2020.

<sup>97</sup> In Slovenia, in contrast to many other EU Member States, studies on graduates' employability were not regularly conducted, labour market forecasts were not systematically used in higher education and not all students had the opportunity to gain practical experience (EC, 2019c).

<sup>98</sup> Examples of successful programmes that established a connection between higher education and the work environment are the programmes "A Creative Path to Knowledge" and "Innovative Student Projects for Social Benefit" (Public Scholarship, Development, Disability and Maintenance Fund of the Republic of Slovenia, 2021).

<sup>99</sup> The technical part of the system was completed in 2020 (MIZŠ, 2021b).



#### **Box 4: Skills for a green and digital transformation and the enhancement of creativity, entrepreneurship and social skills**

**Enhancing digital skills is essential for the digital transformation of society and the economy.** A study by Pichler and Stehrer (2021) showed that high digital skills are positively associated with a person's employment opportunities and frequency of job changes, while negatively associated with unemployment.<sup>1</sup> According to data for 2019, young people (aged 16–19) in Slovenia have a higher level of digital skills than the average of their peers in the EU; nevertheless, it is necessary to increase ICT activities in education to ensure an effective digital transformation.<sup>2</sup> With regard to the digital skills of the general population (aged 16–74), and despite seeing an improvement in these skills, Slovenia ranked around the middle of EU Member States and lagged well behind the best (Figure 27 left),<sup>3</sup> in particular when comparing the elderly and persons with a low level of education,<sup>4</sup> which might indicate increasing difficulties in integrating into society and the labour market for certain population groups. The development of employees' digital skills was also too slow (see Section 1.2.2) – employees having these skills would be one of the key factors in the digital transformation of the economy. At the same time, the number of tertiary education graduates in ICT-related fields who develop the most advanced technologies decreased in 2012–2019 (SURS, 2021) and does not meet the growing needs of the digital economy (see Section 1.2.2 and IMAD, 2020b). As there are more women than men among tertiary education graduates, the low proportion of women among ICT graduates stands out. The importance of digital skills has increased because of the accelerated digitalisation in all areas of life and work after the outbreak of the COVID-19 epidemic, and it will be necessary to increase state investments in enhancing digital skills of adults, to develop education programmes, and to promote and facilitate the participation of adults in these programmes.

**In the light of the green transformation of society and the economy, education for sustainable development is important.** The results of the PISA 2018 survey (OECD, 2020c) point to gaps in knowledge of climate issues and the impact of economic development on the environment among 15-year-olds (Figure 27 right), even though such topics are covered in Slovenian basic and upper secondary schools.<sup>5</sup> It is encouraging, however, that they are more likely to act in a sustainable manner in their daily lives (for example by trying to conserve energy at home more often) than the average of their peers in the 23 EU Member States that are members of the OECD. Education for sustainable development is important not only for children and adolescents, but also for adults. Several education and training programmes for adults are organised under the cross-sectoral project LIFE IP CARE 4 CLIMATE,<sup>6</sup> which was launched in 2019, and it is expected a plan be prepared for implementing activities aimed at training adults to transition to a low-carbon society. The Integrating Climate Topics into the Broad Process of Education Development programme is being implemented, and numerous activities are being carried out at the pre-school, basic school and upper secondary school levels and in adult education. Achieving international commitments in sustainable development and promoting green jobs requires strengthening the education for sustainable development for all generations, whereby it is essential to ensure cross-sectoral cooperation and coordinate measures in the field of education with measures in other fields.

**Enhancing creativity, entrepreneurship and social skills promotes the individual's ability to successfully respond to situations that require innovative solutions and proactive action.** Creativity, innovation and entrepreneurship are essential for generating new ideas, finding solutions in an innovative way, and making progress in society and the economy. Their importance was further highlighted by the COVID-19 epidemic, which brought many changes to people's lives and work in a short period of time. There are many cultural (Section 2.2) and educational activities aimed at encouraging the creativity of children, young people and adults. In previous years, several activities for promoting creativity, entrepreneurship and innovation were carried out by basic and upper

<sup>1</sup> Pichler and Stehrer (2021) came to these conclusions by analysing data from the OECD PIAAC survey (Programme for the International Assessment of Adult Competencies) and the EU-SILC survey for nine EU Member States (including Slovenia) and the United Kingdom.

<sup>2</sup> Slovenia does not have computer science as a compulsory subject in basic and upper secondary vocational schools (EC, 2020a). The Slovenian Digital Coalition calls for the introduction of computer science and informatics as a compulsory subject in basic and upper secondary schools (Slovenian Digital Coalition, 2020).

<sup>3</sup> The share of the population aged 16–74 with at least basic digital skills was 55% in 2019 (Eurostat, 2021), well behind the target set in the European Skills Agenda for sustainable competitiveness, social fairness and resilience by 2025 (EC, 2020a), which is 70%. At least basic digital skills include basic and very good digital skills.

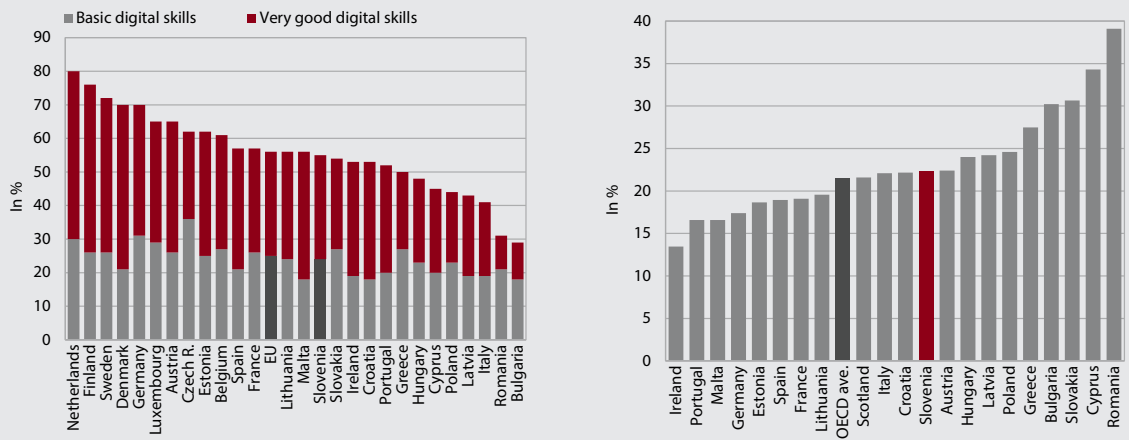
<sup>4</sup> In 2019, 33% of Slovenians aged 55–64 and 16% of Slovenians aged 65–74 had at least basic digital skills. Based on the level of education, 32% of the population with a low-level education, 47% of the population with an upper secondary education and 90% of the population with a tertiary education had such skills (Eurostat, 2021).

<sup>5</sup> In Slovenia, the share of 15-year-olds who could easily or with some effort discuss the impact of economic development on the environment is 62.9% (OECD average: 64.8%).

<sup>6</sup> The purpose of the project, which was launched in 2019, is also to encourage the implementation of measures set out in the OP GHG through educating and training key stakeholders and raising awareness among them.

secondary schools<sup>7</sup> and by higher education institutions;<sup>8</sup> despite the epidemic, many such activities were also carried out in 2020. Creativity is also important for adults who can develop it through study clubs, intergenerational cooperation and learning programmes, etc., which were curtailed in 2020 (Box 3). In order to adapt to changes in the workplace, adults also need soft skills, which are expected to become even more important in the future according to Cedefop (2019) and the OECD (2019d); workers in Slovenia, however, lack such skills (OECD, n.d.).

**Figure 27: Share of population (aged 16–74) with at least basic digital skills, 2019, in %, and share of 15-year-olds who have never heard of or do not know much about climate change, PISA 2018, in %**



Sources: Eurostat, 2021; OECD, 2020c.

<sup>7</sup> For example, the promotion of creativity, entrepreneurship and innovation in basic and upper secondary schools (SPIRIT, 2020), innovative learning environments and flexible forms of learning (MIZŠ, 2016), the development and implementation of innovative learning environments, and flexible forms of learning to raise general competences – the development of communication skills through cultural and artistic education (MIZŠ, 2017) and the Innovation, Science and Creativity Festival of Youth (National Education Institute Slovenia, 2020b).

<sup>8</sup> For example, the programmes Innovative Student Projects for Social Benefit and A Creative Path to Knowledge (Public Scholarship, Development, Disability and Maintenance Fund of the Republic of Slovenia, 2021).

in lifelong learning are too low with regard to the less educated,<sup>100</sup> where the unemployment rate increased the most during the COVID-19 epidemic due to restrictions on activities in which mostly workers with a low level of education are employed (Indicator 3.19) and the elderly,<sup>101</sup> who may therefore be less likely to maintain and extend their working life. Consequently, the elderly may also have fewer opportunities for participating in society and developing skills that are important for maintaining their independence in old age. Employee participation in lifelong learning also decreased in 2008–2019 (Figure 28 right) and has been lower in the private sector than in the public sector for many years. The low participation of employees in positions that are subject to high levels of digitalisation and automation (OECD, 2019c) also stood out, which has a negative impact

on their employment opportunities. The long-term decline in employee participation in lifelong learning is unfavourable both as regards the competitiveness of companies and the digital and green transformation of the economy and from the point of view of coping with changes in work caused by the epidemic. The need for additional skills is also perceived by employees;<sup>102</sup> however, companies do not pay enough attention to employee education and training.<sup>103</sup> In 2020, the participation of employees in lifelong learning further decreased as a consequence of the partial shutdown of the economy and the reduced number of implemented adult education programmes (Figure 28 right and Box 3). This situation could be improved through improvements in several areas. The EC (2019b) highlights the need to make education accessible to all adults and to increase government, employer and adult expenditure on education; with regard to financing, Beltram (2019) also points to the weakness that is the high dependence of a significant number of adult education providers on the unpredictable dynamics of receiving funding from

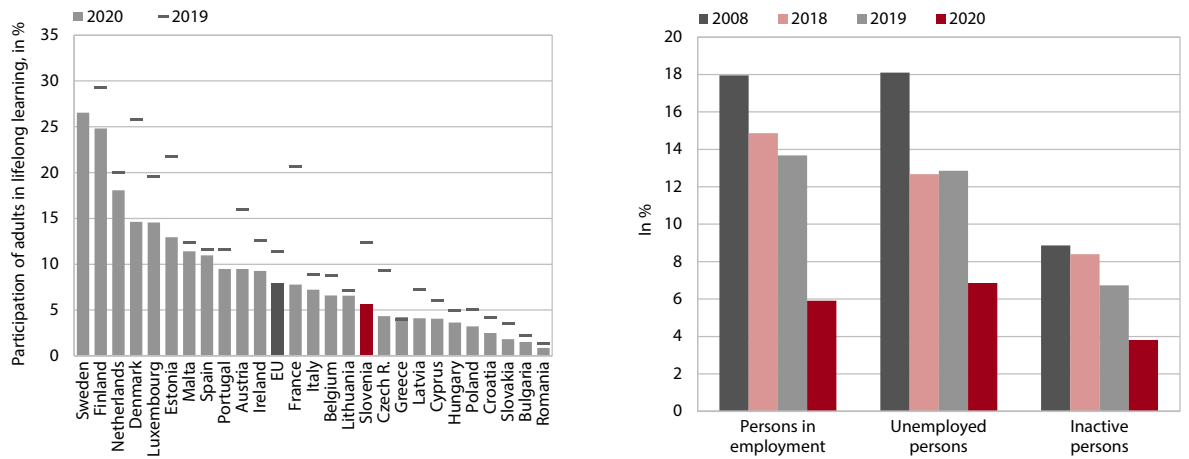
<sup>100</sup> According to data for the second quarter of 2019, the participation of low educated people in lifelong learning amounted to 2.3% (2020: 0.9%) and there were 8.3% (2020: 3.4%) of people with upper secondary education and 22.1% (2020: 10.2%) of people with tertiary education that participated in lifelong education in 2019 (SURS, 2020a).

<sup>101</sup> In the second quarter of 2019, the participation of the elderly (aged 55–64) in lifelong learning amounted to 6.9% (2020: 2.3%) and there were 19.3% (2020: 12.5%) of young Slovenians (aged 25–34) that participated in lifelong learning in 2019 (SURS, 2020a).

<sup>102</sup> In Slovenia, 72% of respondents believe that their job requires them to constantly work on their skills (Cedefop, 2020b).

<sup>103</sup> In 2019, Slovenia ranked 20<sup>th</sup> among 26 EU Member States in terms of employee training as a priority for companies (IMD, 2020).

**Figure 28: The participation of adults (aged 25–64) in lifelong learning in the EU in the second quarters of 2019 and 2020 (left) and the participation of adults (aged 25–64) in lifelong learning by labour status in Slovenia (right)**



Sources: Eurostat, 2021 (figure on the left), and SURS, 2020 (figure on the right).

the European Social Fund. At the same time, the culture of lifelong learning and the quality of education must be strengthened, and adults must be provided with information and counselling services. In addition, there is a need to strengthen the adaptation of education to the needs of the individual, recognise informally acquired knowledge (Cedefop, 2020b) and reform the adult education system (OECD, n.d.). The epidemic also highlighted the need to develop remote education and to increase the participation of adults in education programmes tailored to the needs of the labour market.

2.2 Culture

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

The purpose of 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 the goal will be supported by the promotion of participation in culture, development and preservation of culture and cultural heritage, strengthening of cooperation between businesses and culture, and promotion of creativity and creative industries. In addition, the SDS 2030 refers to digitalisation as an important factor for the preservation and development of the Slovenian language and access to culture and international cultural collaboration as a means to increase 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	
Attendance at cultural events, number per capita	6.2 (2019)	N/A	8
Share of cultural events held abroad, in %	3.9 (2019)	N/A	3.5
Open source language resources and tools, number	205 (2020)	N/A	153

**In 2014–2017, the trends in some areas of culture were favourable, while more progress would have been needed in other areas to make a greater contribution to the social and economic development of Slovenia.** The Report on the Implementation of the 2014–2017 National Programme for Culture (MK, 2018) shows that many measures were taken during the programme’s implementation and also that there were shortcomings present in some areas. In the area of *books*, many activities were carried out to improve the situation,<sup>104</sup> but the Books on the Market portal remained unrealised; as regards *library services*, the services were carried out on a small scale and the goal of increasing the quality and accessibility of general library services was partially achieved.<sup>105</sup> In relation to the *visual arts*, the access to quality visual art improved,<sup>106</sup> the goal of a more efficient and resounding performance of Slovenia at a central venue of the Venice Biennale/Architecture Biennale was achieved, the so-called gallery network was set up partially,<sup>107</sup> and some cultural events that bring

together different stakeholders became established in practice.<sup>108</sup> With reference to the *musical arts*, the amount of music produced increased and the diversity and accessibility of top music projects was promoted; in connection with *ballet*, a short-cycle higher education programme for ballet was adopted, but no solutions were adopted regarding the retirement or retraining of inactive persons. With regard to the *performing arts*, several indicators did not reach the target regarding the accessibility of quality theatre production, though a larger number of quality contemporary dance productions was encouraged. In addition, in order to develop and better organise the professional sphere of the performing arts, the Slovenian Theatre Museum became the Slovenian Theatre Institute – SLOGI.<sup>109</sup> In the area of *film and audiovisual production*, measures were taken to boost production, quality and supply,<sup>110</sup> and the viewing figures of quality Slovenian and European cinematographic and audiovisual works increased. As regards *intermedia art*, however, progress was relatively modest. With respect to *amateur cultural arts*, numerous trainings and events were organised and the cooperation in this area was strengthened in

<sup>104</sup>In 2014, the Single Price for Books Act (ZECK) was adopted, the state campaign “Growing up with a Book” was implemented and co-financing of various cultural programmes run by bookstores was underway.

<sup>105</sup>The quality and accessibility of general library services was promoted through co-financing the accessibility of e-books in Slovenian in public libraries, the purchase of new bibliobuses and the establishment of the Dobreknjige.si web portal. The Court of Audit of the Republic of Slovenia (2020) provided recommendations to improve children’s reading literacy.

<sup>106</sup>The number of co-production projects (NGOs and public institutes) and the number of exhibition venues increased, and national promotion projects involving various stakeholders were implemented.

<sup>107</sup>The purpose of the gallery network is to involve a large number of organisers from all over the country in cultural programmes and projects.

<sup>108</sup>These events are Slovenia at the Venice and Architecture Biennale, the Jakopič, the Smrekar and Plečnik awards, the Slovenian Biennale of Illustration, the Art Stays festival of contemporary art in Ptuj, the festival Trbovlje – A new media city, etc.

<sup>109</sup>The Slovenian Theatre Institute acts as a point of integration of all players in the performing arts, the theatre network, creators, the Academy of Theatre, Film, Radio and Television, umbrella associations, etc.

<sup>110</sup>Co-financing of quality cinematographic and audiovisual production was underway, long-term support for quality film festivals was provided, and RTV Slovenia participated in the promotion and screening of quality Slovenian cinematographic and audiovisual works.

Slovenia, though there was not enough cultural contact with Slovenians around the world. In relation to *human rights and the protection of cultural diversity*, the levels of minorities' protection of cultural rights and cultural integration were maintained and care for vulnerable groups continued, though not all targets were met. In connection with *cultural heritage*, some projects for the restoration and recovery of cultural heritage were implemented,<sup>111</sup> and various activities were carried out with a view to increasing visibility abroad. Numerous professional trainings were conducted with regard to *culture and art education*.<sup>112</sup> *Digitalisation*, however, lagging behind plans. The number of the *self-employed in culture* has increased, as has the number of self-employed persons with the right to the payment of social security contributions from the state budget. At the same time, measures were implemented to support cultural projects and programmes of *non-governmental organisations* in relation to culture and art, and the co-financing of various activities had a favourable effect on the development of cultural activity and, in turn, of *private companies*, institutes and associations. In 2018, the National Programme for Culture expired, and a new one was yet to be adopted despite several proposals that had been made. Further detailed below are areas of culture that are more closely related to SDS 2030.

**Government expenditure on culture in 2019 was lower than ten years ago, and the number of people employed in this activity grew until 2019.** In 2019, government expenditure amounted to 0.9% of GDP,<sup>113</sup> which was the lowest in the last ten years but still higher than the EU average in 2018 (0.7% of GDP). In particular, due to austerity measures in the public sector, expenditure showed a downward trend after 2011 and started increasing again in 2017, but it was still lower in 2019 than at the beginning of the global financial crisis in 2008, with higher expenditure on employees and lower expenditure on investment. At the same time, the number of people employed in culture generally grew, though it decreased in 2020 (SURS, 2021),<sup>114</sup> and their share in the total number of persons in employment in 2019 was higher than the EU average (Eurostat, 2021). In Slovenia, a special feature in relation to culture is the possibility to obtain the status of a self-employed person in culture, which is aimed at increasing the number of cultural activities (Ograjenšek, 2019) and the size of the cultural sector.

**Due to the COVID-19 epidemic in 2020, mostly favourable trends in the supply and attendance at cultural events were interrupted, and the gap in access to cultural content was only partially filled by accelerated digitalisation.** As the supply of cultural events was favourable and attendance at these events increased in previous years (see Indicator 2.7), we estimate that the number of visits in 2020 decreased due to the closure of cultural institutions and restrictions on outdoor gatherings during the epidemic. Nevertheless, many cultural institutions have somewhat filled the gap in access to culture by introducing the possibility of viewing cultural events online, and a portal for remote culture and art education was established (SIO, 2021). Some cultural associations have also moved online their amateur cultural activities, in which more and more people have become involved in recent years. Although online events do not provide the same cultural experience as attending live events, the epidemic has highlighted the potential of digitalisation in culture. The epidemic also highlighted the potential of digitalisation in relation to cultural heritage, where even greater steps<sup>115</sup> would be needed and where the implementation of the 2020–2023 Cultural Heritage Strategy could have positive effects in the future. For the protection of film heritage, it was important to obtain a designated exhibition venue, which was successfully acquired by the Slovenian Cinematheque in 2020 (Cinematheque, 2020). In 2015–2020, ten Slovenian feature films were digitally restored (SFC, 2020).

**Trends in the field of books and language resources and technologies, which are important for developing reading literacy and preserving and developing the Slovenian language, have been largely unfavourable for many years.** In recent years, a number of activities have been carried out to promote reading literacy and access to books was ensured through public libraries and bibliobuses, but the number of library memberships mostly decreased (NUK, 2021). According to a survey conducted among Slovenians aged 18–75, there was also a decline in book reading between 2014 and 2019 (Figure 4). The most often given reasons for not reading books were a lack of time, a lack of interest in reading and health problems (e.g. poor eyesight) (Rupar et al., 2019). In 2020, the temporary closure of public libraries reduced the accessibility of books for some time, and activities for the promotion of reading were curtailed. In the future, the implementation of the 2019–2030 National Strategy for the Development of Reading Literacy could contribute to improving reading activity and raising the level of reading literacy. The strategy could also have a positive impact on publishing, which, in our estimation, was negatively affected in 2020 due to greater consumer caution over making purchases and the temporary physical closure of bookstores during

<sup>111</sup> These projects are the smelting plant in Idrija, the Simon's Bay Archaeological Park, the Ljubljana River Experience and Exhibition Site, Vila Vipolže, Plečnik's House, the Lanthieri Mansion in Vipava and the Museum of Puppetry at Ljubljana Castle.

<sup>112</sup> The [www.kulturnibazar.si](http://www.kulturnibazar.si) portal and the e-catalogue of culture and art education programmes offered at cultural institutions from all over Slovenia also contribute to providing better information to the expert community and the general public.

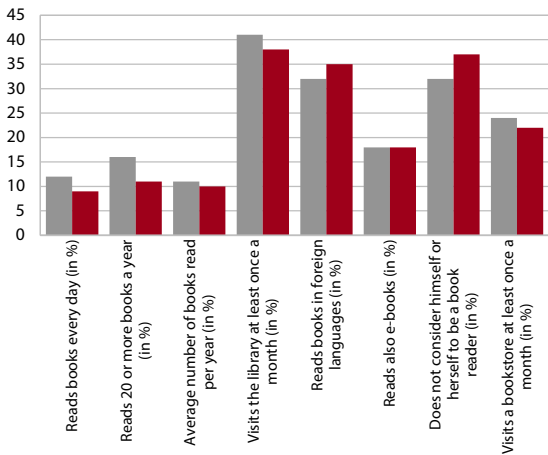
<sup>113</sup> Expenditure on culture consists of expenditure on cultural services, which amounted to 0.6% of GDP in 2019, and expenditure on radio, television and publishing, which amounted to 0.3% of GDP in 2019.

<sup>114</sup> In 2020, there were 27.7 thousand people employed in culture (SURS, 2021).

<sup>115</sup> The number of items published on the KAMRA portal in 2019 was 37,710 (Celje Central Library, 2020) and was lower than the target for 2017 (50,000) set in the Resolution on the National Programme for Culture 2014–2017.



**Figure 29: Selected indicators relating to book reading activity and bookstore visits, Slovenians aged 18–75, 2014 and 2019**



Source: Rupar et al., 2019.

the epidemic. The preservation and development of the Slovenian language and digitalisation is also facilitated by the development of language resources and technologies<sup>116</sup> where the number of open access language resources and tools in the national CLARIN repository<sup>117</sup> is increasing (CLARIN.SI, n.d.), having reached 205 of resources and tools at the end of 2020 (the SDS 2030 target was 153). The drawback is that the key measures of the Resolution on the National Programme for Language Policy 2014–2018 were not implemented in accordance with the goals (MK, 2020c), nor was a resolution for the next period adopted after its expiration.

**Due to the COVID-19 epidemic and the implementation of emergency measures, the situation of the cultural and creative sector has deteriorated sharply in 2020, which may lead to a decrease in its size and potential, which is important for social and economic development.** Culture contributes to generating GDP – its<sup>118</sup> contribution,

expressed as a percentage of value added in gross domestic product (GDP), amounted to 1.1% in 2014–2019 (Repovž Grabnar, 2021). A study by Murovec et al. (2020) showed that the potential of the cultural and creative sector with regard to employment and the creation of value added is not negligible. In 2017, this sector generated 2.5% of the economy’s turnover and contributed 3.5% to gross value added in Slovenia.<sup>119</sup> In 2008–2017, the performances of various industries within the sector differed, with publishing standing out negatively and software and games standing out positively. In recent years, the connection between culture and the economy has strengthened. The Centre for Creativity has been active for several years, and the integration of science, art, technology and the economy is also promoted by the investigative art and culture platforms KONS and RUK.<sup>120</sup> A call for proposals for the promotion of creative cultural industries – Centre for Creativity 2020–2021 – was published in 2020 (MK, 2020d). The integration of culture and the economy is particularly important as innovative practices in culture and creativity not only strengthen innovation capacity in the sectors of cultural and creative industries, but are also incorporated into new approaches, practices, services and products across the economy (GZS, 2020). In 2020, the COVID-19 epidemic negatively affected the business operations in the cultural and creative sector, as well as the financial situation and the social status of those employed in this sector (Matjaž et al., 2020a and 2020b). As cultural workers are on average more exposed to non-standard forms of employment (Kresal Šoltes et al., 2020; Fiedler et al., 2020), they were more exposed to loss of earnings during the epidemic, and the non-institutional part of culture found itself at a disadvantage in comparison to the institutional one. Although the state took measures to mitigate the negative consequences of their loss of income (monthly basic income and exemption from contributions),<sup>121</sup> the workers in the cultural and creative sector found them to be too modest or did not benefit from them at all due to ineligibility (Matjaž et al., 2020b). In the long term, the epidemic might cause a reduction in the size of the cultural and creative sector, leading to a decline in creative potential, which is indispensable for society and the economy in dealing with social, environmental, economic and other development challenges (OECD, 2020e).

<sup>116</sup>Language resources is a collective name for language manuals (dictionaries, grammar books, spelling books, etc.) and linguistic collections (corpora and linguistic databases) that speakers use on a daily basis for independent and effective communication. Language technology is a description covering various computer tools and applications that use existing language (meta-)data for solving users’ practical dilemmas connected to language (speech recognition and synthesis systems, machine translation systems, machine-aided human translation systems, spelling and grammar checkers, automatic question answering systems, text mining, etc.) and for computer analysis of natural languages for the production of digital language guides and other resources (MK, 2017).

<sup>117</sup>CLARIN is a research infrastructure that is organised as an interinstitutional consortium and is responsible for the development and operation of a unified computer platform, which offers research communities permanent storage and free access to language resources, applications and advanced tools for computer processing of Slovenian and other languages (CLARIN.SI, n.d.).

<sup>118</sup>In statistical analysis, the field of culture is determined on the basis of activities that belong to the following groups of activities in accordance

with the Standard Classification of Activities 2008 (SKD, 2008): publishing, activities related to film, video and sound recordings, radio broadcasting and television activity, arts and entertainment activities, and library, archive and museum activities (Repovž Grabnar, 2020).

<sup>119</sup>The analysis of active enterprises (companies and sole proprietors) showed that, in 2017, this sector accounted for 8.4% of all active enterprises in the economy and 3.3% of all employees. For the definition of the cultural and creative sector, see the study by Murovec et al. (2020).

<sup>120</sup>KONS is a platform for contemporary investigative art and RUK is a network of investigative art and culture centres.

<sup>121</sup>See the Act Determining the Intervention Measures to Contain the COVID-19 Epidemic and Mitigate its Consequences for Citizens and the Economy (2020).

**In 2020, there were fewer opportunities for international cultural activities due to the COVID-19 epidemic; despite that, a few activities aimed at promoting culture abroad and some activities that are important for the Slovenian minority abroad were carried out.**

International cooperation in the field of culture and the promotion of culture contribute to increasing the visibility of Slovenia and its culture abroad and boosting the attendance of cultural events. In recent years, numerous activities have been carried out to increase the promotion of culture abroad, and Slovenian artists have both participated in various international cultural events abroad (MZZ, 2020) and performed cultural events abroad (see Indicator 2.8). Due to the epidemic, there were significantly fewer opportunities for such events in 2020, and several major international cultural events were postponed.<sup>122</sup> International events that will be organised by Slovenia in 2021 represent an opportunity to promote Slovenian culture.<sup>123</sup> The European Capital of Culture event that will be hosted by Nova Gorica and Gorizia in 2025 (GO! 2025, 2020) will also strengthen international cross-border cultural and social cooperation and improve the quality of life of the local population. Activities important for the Slovenian minority abroad were also carried out in 2020. The signing of an agreement between Slovenia and Italy on the return of the National Hall in Trieste to the Slovenian minority in Italy (MK, 2020a)<sup>124</sup> and Austria's apology to Carinthian Slovenians for injustices and delays in enabling them to exercise their constitutional rights, delivered on the occasion of the 100th anniversary of the Carinthian plebiscite (MK, 2020b).

<sup>122</sup> EXPO 2020 was postponed to 2021 and 2022, the Venice Architecture Biennale to 2021 and Slovenia – Guest of Honour at the Frankfurt Book Fair to 2023.

<sup>123</sup> Major events are the choir festival Europa Cantat 2021 and Slovenia – European gastronomic region 2021.

<sup>124</sup> The Slovenian National Hall in Trieste, which was burnt down in 1920, was the centre of creativity and cultural and social life of the Slovenian community in Trieste and its surroundings. The Slovenian minority will receive ownership of the building, which has since been restored (MK, 2020a).

**13**

## **An inclusive, healthy, safe and responsible society**

Against the backdrop of stronger economic growth and favourable developments in the labour market, social and societal development gradually strengthened and became more inclusive in 2014–2019. Social inclusion, quality of life and some aspects of health improved, while the at-risk-of-poverty rate decreased and the level of many inequalities remained low or was reduced, which also built interpersonal trust between people and improved life satisfaction. Despite positive economic and social developments, certain social groups continued to face various challenges: labour market segmentation persisted, especially among young people, the risk of poverty remained high among older women, and health and gender inequalities were exacerbated in certain aspects. With the outbreak of the COVID-19 epidemic, which radically affected the quality of life in early 2020, the existing long-term challenges of social protection systems were heightened: the inadequate long-term care system, the workforce capacities of healthcare systems and waiting times, the sustainability of the pension system in view of current demographic trends, etc. The impact of the epidemic also highlighted a whole range of other adaptations and changes faced by social subsystems due to the new reality (remote schooling and the reconciliation of work and private life) and above all put interpersonal and intergenerational solidarity to the test. The increase in mental health problems, the rise in obesity, the surge in domestic violence, the difficulty of maintaining social contacts, the knowledge of new technologies, and a range of health, social and societal challenges will need to be addressed quickly, comprehensively and in a targeted manner, as effects of the epidemic can already be seen in some indicators for 2020 and, according to the assessments and analyses of the EC, OECD and other institutions, many more are expected to show in 2021.



### 3.1 A healthy and active life

#### A healthy and active life (Development Goal 1)

The aim of the goal is to ensure quality life for all generations by promoting a healthy and active life. Achieving this 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. With demographic change, it will be an even bigger challenge to maintain sustainable social protection systems that ensure adequate pensions and a high level of access to healthcare and long-term care and contribute to reducing health inequalities. In order to achieve this goal, it is also important to create conditions for a dignified life for all generations, which is addressed in Development Goal 3.

#### Performance indicators for Development Goal 1:

	Latest data		Target value for 2030
	Slovenia	EU average	
Healthy life years at birth, number of years	Men: 60.8 years; 77.3% of life expectancy (2019)	Men: 64.2 years; 81.8% of life expectancy (2019)	Men: 64.5 years (80% of life expectancy)
	Women: 61.2 years; 72.4% of life expectancy (2019)	Women: 65.1 years; 77.5% of life expectancy (2019)	Women: 64.5 years (75% of life expectancy)
Gender Equality Index, index	67.7 (0–100) (2020)	67.9 (0–100) (2020)	> 78

**As measured by key health indicators, the improvements in health status of the population saw a slowdown in the years before the epidemic and is likely to have deteriorated sharply in 2020.**

Long-term trends of improvement in the health status of the population were mostly associated with advances in medicine, improvements in the quality of healthcare and a number of other factors, such as income growth and higher levels of education and information of the population. In Slovenia, life expectancy increased very rapidly until 2014, but in 2014–2019 the growth slowed considerably, much as it did in most EU and OECD countries. In 2019, life expectancy at birth was 81.6 years in Slovenia and 81.3 years in the EU (see Indicator 3.3). In Slovenia, the increase in the number of healthy life years, which is below the EU average (see Indicator 3.1), slowed down, and self-perceived health and disability status remained well below the EU average. For 2020, it is expected that the high mortality from COVID-19 lowered the life expectancy, mostly in the age group of 65 years and over. In 2020, 3,120 people died of COVID-19 in Slovenia, of whom 54% were women, and 50% of all deaths were in the age group of over 85 years and 95% in the age group of 65 years and over (National Institute of Public Health (hereinafter: NIJZ, 2021a). According to the ECDC, the number of deaths per million inhabitants in Slovenia reached 1,379 by the end of the year; the only other EU Member State with a higher number of deaths per million inhabitants was Belgium (Figure 30 left). Excess mortality,<sup>125</sup> which

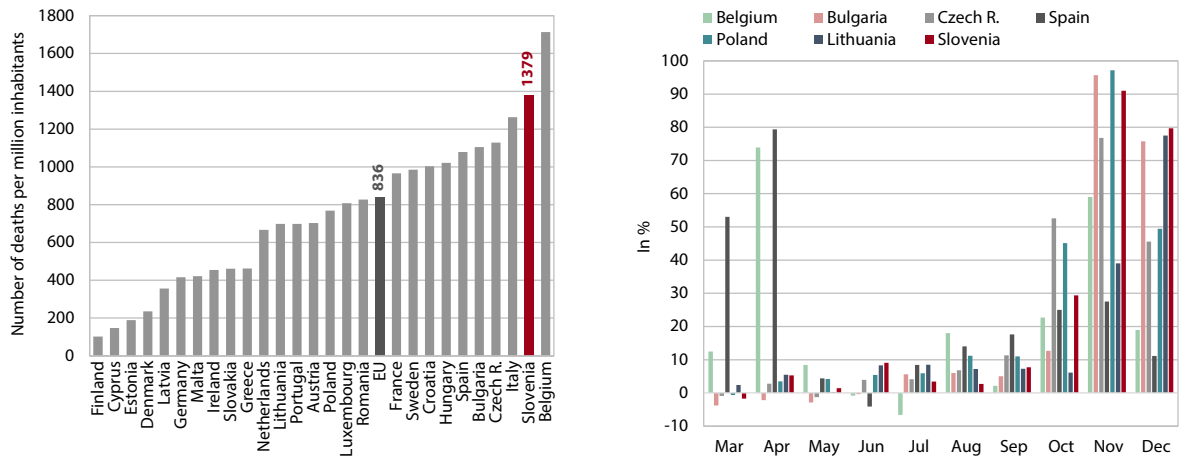
includes deaths associated with COVID-19 and other deaths, was markedly high in November and December, at 91% and 80% respectively, and Slovenia’s figures were the highest among EU Member States when comparing the average of the last three months of 2020 (Figure 30 right). The high proportion of the population that recovered from COVID-19 (in 2020: 126,000 people, i.e. 6% of the population) and limited access to other healthcare services can be expected to negatively affect the healthy life years indicator (see Indicator 3.4), and a number of other health indicators are also likely to deteriorate.<sup>126</sup> The decline in indicator values will also depend on the effectiveness of the response in the post-epidemic period, when it can be expected that the number of cases, especially those at the secondary level of healthcare system, where the number of treatments fell sharply in 2020 (see Box 5), will rapidly increase and that waiting times will once again get longer.

on mortality and includes both deaths caused directly by COVID-19 and those that are indirectly associated with COVID-19, such as deaths due to not being able to visit a doctor or having visited them when it was too late (Eurostat, 2021).

<sup>126</sup> The long-term effects of COVID-19 in children were noted by the Division of Paediatrics of the Ljubljana University Medical Centre, where as many as 24 children with multisystem inflammatory syndrome and SARS-CoV-2 infection were treated in 2020 (UKC, 2021). A study by Chinese researchers (Huang et al., 2021) found that as many as 76% of patients who recovered from a severe bout of COVID-19 still suffered from various health problems and exhibited symptoms of the disease (fatigue, respiratory problems, cough, joint pain, anxiety, depression, headache and insomnia) six months after diagnosis.

<sup>125</sup> Excess mortality is the ratio between the number of deaths from all causes in a given time period and the average of the same period over the last five years. The indicator covers all the effects of the epidemic

**Figure 30: The number of deaths from COVID-19 in 2020 (left) and excess mortality in selected EU Member States most affected by the COVID-19 epidemic in 2020\* (right)**



Sources: ECDC, 2021 (left) (data obtained from official sources of EU Member States, either ministries of health or institutes of public health); Eurostat, 2021 (right). Note: \* Included are the EU Member States in which the excess mortality rate was above 60% for at least one month. Excess mortality is calculated on the basis of death rates, which are internationally methodologically harmonised.

**Prior to the epidemic, Slovenia made significant progress in reducing treatable mortality, while less progress was made in preventable mortality.** In 2017, 78 people per 100,000 inhabitants (latest available data) died in Slovenia due to causes that could have been avoided with timely and efficient healthcare, amounting to 22 deaths per 100,000 inhabitants fewer than in 2011 and 15 fewer than the EU average. The indicator reflects relatively effective healthcare with regard to treatment, especially in view of the relatively lower investment in healthcare than in countries that achieve comparable results (see Indicator 3.4.). However, Slovenia still lags behind the EU average in terms of preventable mortality, mainly due to the prevalence of unhealthy lifestyles – Slovenia is among the top EU Member States in terms of overweight and obesity in adults and<sup>127</sup> alcohol dependence and heavy episodic drinking (NIJZ, 2016).<sup>128</sup> The rate of preventable deaths due to alcohol is almost twice as high as the EU average and there are wide disparities between genders, with men having significantly more problems. Unhealthy lifestyle is also the main reason for the high burden of chronic diseases such as cancer, circulatory diseases and diabetes. Due to the ageing of the population, cancer incidence is increasing in all EU Member States; in 2020, Slovenia ranked 8<sup>th</sup> among the EU Member States in terms of the expected incidence rate of various types of cancer and 7<sup>th</sup> in terms of mortality.<sup>129</sup> Mortality from circulatory

diseases is also above average, whereas the number of deaths from respiratory diseases is lower. Due to the identified problems, Slovenia has been paying special attention for several years to the expansion of health promotion centres, family medicine model practices for chronic patients, and counselling and screening services at the level of primary healthcare. Further progress will also require the introduction of integrated long-term care and an increase in employers' investment in health (see Section 3.2). Several studies have shown that chronic diseases present an important risk factor for a severe course of the COVID-19 disease (OECD/EU, 2020), so additional measures to reduce the risky behaviour of the population, especially with regard to obesity, are increasingly at the forefront of health policy recommendations (Yanan et al., 2020).

**In the decade before the epidemic, health inequalities improved in several indicators, but the COVID-19 epidemic is likely to again widen the gap in health according to socio-economic status.** The OECD analysis (2020e), which included 16 indicators on health inequalities and inequalities in access to healthcare, showed that, compared to other EU Member States, Slovenia has relatively high inequalities by educational level, as apparent from the indicators of women's obesity, women's self-perceived health, visits to specialists, visits to dentists, and unmet healthcare needs due to geographical reasons. However, the most recent analysis of the NIJZ and participating institutions (2021b), which considers more than 30 indicators, shows that the education gap has narrowed in some indicators (e.g. life expectancy at the age of 20, premature mortality, men's self-perceived health, smoking prevalence and suicide

<sup>127</sup> An OECD study (2019a) shows serious economic consequences due to overweight and obesity, which would, in the event of unchanged trends in 2020–2050, on average amount to 3.1% of GDP in Slovenia (EU-23: 3.3%). The estimate takes into account the direct costs for the healthcare system, the reduction in life expectancy and the indirect costs due to the impact on the labour market.

<sup>128</sup> See also IMAD, 2020a.

<sup>129</sup> OECD/EU, 2020. Estimates for 2020 are based on data from the ECIS (European Cancer Information System) and were conducted in collaboration with the Joint Research Centre, the European Network

of Cancer Registries and the International Agency for Research on Cancer.

mortality) and increased (e.g. lung cancer mortality and depressive disorders) or remained unchanged in others. Experts warn that the COVID-19 epidemic will further widen the gap in health status of the population, as socially disadvantaged and vulnerable population groups are more at risk of infection. The main reasons for this are their poorer basic health status in general, poor living conditions, lower response to testing and various obstacles to healthcare accessibility (DG SANTE, 2020; NLO, 2020). The use of remote healthcare services, which has contributed significantly to safer access to healthcare during the epidemic (see Box 5), presented an additional obstacle for these population groups. According to analyses, users of eHealth and mHealth services<sup>130</sup> are two to three times more likely to have better education and higher incomes than socially and economically disadvantaged people, even though on average the latter have poorer health (EC, 2019a; OECD, 2019b).<sup>131</sup> Since October 2019, Slovenia has been running a project to raise health literacy, which consists of individuals' knowledge and competences in accessing health information and is crucial for the training and active participation of individuals in caring for their health (NIJZ, 2019).

**The COVID-19 epidemic is exacerbating mental health problems that are likely to be long-term.** The prevalence of mental health problems has increased in Slovenia and other developed countries over the last decade.<sup>132</sup> According to the EHIS, 5.7% of the population sought help from a mental health professional (psychiatrist, psychologist or psychotherapist) in 2019 (5.5% in 2014; EU: 6.5%); Slovenia stood out especially in terms of the high share of women. Compared to 2014, the need for such professional assistance increased the most among women with a high-level education and among men with a basic and low-level education (NIJZ, 2021b). Despite the actions taken in 2017,<sup>133</sup> the suicide rate per 100,000 inhabitants was still almost twice as high as the EU average (Slovenia: 20; EU: 11) and markedly high among men (men: 35; women: 7). The rate remained high in 2019 (19.1 suicides per 100,000 inhabitants)

(NIJZ, 2020c). In early 2018, the Resolution on the National Mental Health Programme 2018–2028 was adopted, providing for wider action by several sectors and policies to reduce the burden of mental illness. The focus is on shifting from predominantly inpatient treatment to addressing mental disorders at the primary level in a local environment. In accordance with these guidelines, the establishment of mental health centres continues, but there are difficulties in ensuring adequate staff (Health Insurance Institute of Slovenia, (hereinafter: the HIIS), 2020). Experts at the OECD (2018b) and WHO (2020b) also note that prevention and early detection of mental health problems received too little attention in the past, especially given the high social and economic consequences, which are estimated to reach an average of 4% of GDP annually in EU Member States and 4.1% of GDP annually in Slovenia. In particular, the experts highlight the urgency of preventive policies and the early integrated treatment of people with mental health problems. However, a number of studies show that the COVID-19 epidemic and restrictive measures will lead to a significant deterioration in the mental health of the population, in particular due to an increase in the incidence of depression, anxiety, addiction, burnout, fear, feelings of anger, domestic violence, child abuse and suicide (NIJZ, 2020a; WHO, 2020b; Pedraza et al., 2020). As with major natural disasters, post-traumatic stress disorder and alcohol and drug abuse are also expected. In addition, a study by French researchers found that as many as a third of patients who had recovered from a severe case of COVID-19 experienced negative effects on concentration and cognitive abilities, while other studies show that the disease increases the risk of anxiety, sleep disorders and dementia (UKC, 2021; Helms et al., 2020; Taquet et al., 2021). In Slovenia, community health centres and various other institutions established a network for psychological support, which is accessible to all Slovenians by telephone, but there is a severe shortage of psychiatrists and clinical psychologists to help people with major problems (NIJZ, 2020b).<sup>134</sup>

**Remote schooling has significantly increased the mental distress of children and adolescents.** According to the HBSC study, the latest data, from 2018, show that fewer children and adolescents complained about various health problems in Slovenia compared to the EU average (OECD, 2020c),<sup>135</sup> while on the other

<sup>130</sup> The eHealth system refers to the introduction of changes in the healthcare system: providing remote healthcare services and introducing e-referrals, e-medical records and, more generally, digital communication in healthcare. Mobile Health or mHealth is a subdivision of eHealth. It includes the use of all mobile communication devices and applications intended for health and well-being for informative public health purposes or for the remote treatment and monitoring of patients (EC, 2020b).

<sup>131</sup> In 2018, an average of 60% of internet users in Slovenia searched for health information online, which is approximately the same as the EU average, but the share of people with lower education was less than 40% and that of people with higher education was more than 70% (Eurostat, 2021).

<sup>132</sup> For more information, see OECD, 2018a; see also IMAD, 2019a.

<sup>133</sup> Actions and awareness-raising activities include free support workshops in community health centres for individuals dealing with stress, depression and anxiety disorders. A network of psychological counselling centres has been set up to provide free professional psychological help, and helplines and several online forms of assistance have been provided. In recent decades, the suicide rate has decreased by more than 30% in Slovenia; it has also decreased in other EU Member States (NIJZ, 2021c).

<sup>134</sup> According to the EHIS, only 2.1% of respondents visited a psychologist, psychotherapist or psychiatrist at least once in the last 12 months in 2014 (EU: 5.5%); the highest proportions of those who visited such specialists were in Germany (9.4%) and Denmark (10.4%) (Eurostat, 2021). There are 15 psychiatrists per 100,000 inhabitants in Slovenia, which is nearly half less than in Germany (27.5) and less than the EU the average (17.5) (Eurostat, 2021). In terms of the number of psychologists, Slovenia ranks in the lower half of EU Member States; in 2015, Slovenia employed 15 psychologists per 100,000 inhabitants in the public sector, whereas this number ranges between 100 and 150 in Western European countries in the EU (it is generally below 50 in Eastern European countries) (GROW/E5, 2016).

<sup>135</sup> In 2018, the share of 11-year-olds who reported various health problems amounted to 20% in Slovenia (EU: 33%); the level in Slovenia was the same as in the EU only with regard to 15-year-old girls (53%),

hand there were several 15-year-olds who occasionally overindulged in alcohol and there was an increase in the number of 15-year-olds who had used marijuana at least once in the last 30 days or who were overweight. In January 2021, the divisions of paediatrics at the Ljubljana and Maribor University Medical Centres drew attention to the more than 30% increase in cases at their paediatric psychiatric wards, and a similarly high increase was recorded in other institutions providing psychological help to children and adolescents. Young people are suffering more from more anxiety disorders, panic attacks, obsessive compulsive disorders, eating disorders and behavioural problems.<sup>136</sup>

**During the COVID-19 epidemic, people's prospects for an active and healthy life have deteriorated, with the negative impact on children's motor performance and obesity also starting to show.**

The participation of the population in cultural activities that contribute to an active lifestyle was higher than the EU-28 average in 2017 (Eurobarometer, 2014 and 2017c). The share of the population engaged in sports activities that contribute to a healthier lifestyle was higher than the EU average, although it decreased between 2013 and 2017 (to around 50%). The low share of low-income earners and the elderly (Eurobarometer, 2017c) stands out, so it is essential to strengthen programmes for lifelong participation in sports activity and design programmes that are tailored to the needs of the elderly. Due to the epidemic and the restrictions on the opening of cultural institutions and the operation of cultural associations, 2020 saw a large decline in the accessibility of amateur and other cultural activities and the opportunities of the population to engage in such activities, which is closely related to social inclusion, social activity and the integration of generations. The accessibility of other activities promoting intergenerational cooperation carried out by intergenerational centres, Slovenian Third Age University and others has also decreased, although many activities have been moved online. The closure of sports facilities has also reduced access to sports activities and thus negatively affected the population's prospects for a healthy lifestyle. Remote education for children (see Section 2.1) and restrictive measures have had a very negative impact on children's physical and motor development. Based on data from more than 20,000 basic school pupils ranging from grades one to nine, the SLOfit Sports Education Card study showed that, following the period 2009–2019, when children's motor performance mostly improved, 2020 saw the largest decline in children's motor performance and the largest increase in child overweight and obesity in the

last 33 years (Faculty of Sport, 2020; see Indicator 3.8). As aerobic endurance and motor performance have been shown to be associated with children's health and learning outcome, the above presents a poor outlook for the development of children and adolescents in all areas, jeopardising the potential of current generations (Nutrition Institute, 2020).

**The work-life balance in Slovenia is slightly above the EU average, with women taking on childcare responsibilities more often than men.**

A good work-life balance has a positive effect on the health and satisfaction of employees.<sup>137</sup> In 2018, 81% of respondents were satisfied with their work-life balance (EU: 78%).<sup>138</sup> Though women do almost the same amount of paid work per week as men, they spend significantly more hours on childcare and unpaid housework than men (IMAD, 2021; EC, 2017b). Slovenian fathers do not make full use of their right to paternity leave,<sup>139</sup> and the share of fathers who take parental leave is low (between 5% and 7%). The right to part-time work due to parenthood is mostly exercised by mothers. Flexible forms of work can also contribute to easier and better balancing of professional and family responsibilities of parents and guardians, but they were not available to 40% of Slovenian respondents in 2018 (EU: 31%) (Eurobarometer, 2018).<sup>140</sup> During the COVID-19 epidemic, a significant increase in childcare responsibilities, work from home and job insecurity has made it even more difficult to divide the time well between work and family. Due to the closure of schools and kindergartens and the increase in the need for care for the elderly and sick family members, additional care responsibilities and unpaid housework during the epidemic have fallen mostly on women, which has exacerbated the existing inequalities in gender roles. In April 2020, women in Slovenia and, on average, in the EU – especially those with children under the age of 12 – reported more difficulties in balancing work and private life than men, and the results of a survey in July show that women did significantly more unpaid work than men (Eurofound, 2020a).

**The gender inequalities in Slovenia are lower than in the EU as a whole, but the impact of the COVID-19 epidemic may exacerbate these inequalities.**

The gender equality index improved after the global financial crisis, but a closer analysis shows that equality improved

whereas for the boys the share was much lower (Slovenia: 23%; EU: 31%). In Slovenia, the share of 15-year-olds who often overindulge in alcohol is 26%, while the EU average decreased significantly, amounting to 22% in 2018. The most widespread illicit drugs among young people are marijuana, ecstasy, amphetamines, cocaine and LSD (OECD, 2018; Jandl et al., 2020).

<sup>136</sup> For details, see The Human Rights Ombudsman of the Republic of Slovenia, 2020.

<sup>137</sup> See Kresal and Kresal Šoltes, 2016; Humer et al., 2016.

<sup>138</sup> Eurobarometer, 2018. Are you satisfied or not with the balance between your work/studies and your personal life? The answer »satisfied« combines the answers »very satisfied« (28%) and »fairly satisfied« (53%). As much as 83% of men and 78% of women are satisfied.

<sup>139</sup> The majority of fathers (around 80%) choose to take the first 15 days of paternity leave, while the number of fathers who decide to also take the rest of their paternity leave is still very low.

<sup>140</sup> In organisations offering flexible forms of work, 43% of respondents made use of this possibility, which is comparable to the EU average, where more men (52%) than women (35%) opted for this form of work. The most widespread flexible form of work in Slovenia is flexible working hours, followed by part-time work and work from home (Eurobarometer, 2018).

mainly due to significant deterioration of the position of men in the labour market (Gregorčič et al., 2020). In recent years, negative trends have been particularly evident in the pay gap and in the area of women's political participation (see Indicator 3.2).<sup>141</sup> Experts highlight that, as a result of the COVID-19 epidemic, a high proportion of women have been exposed to factors that can affect their physical and mental health, consequently increasing gender gaps in all other areas (labour market, income, etc.) (Alon et al., 2020; Adam-Prassl et al., 2020; Torrejon Perez et al., 2020).<sup>142</sup> Apart from the additional burdens due to the increase in family and care responsibilities, there are more reasons for this: (i) a high proportion of women are employed in healthcare and long-term care, which makes them particularly at risk of infection and most subject to excessive workloads during the epidemic; (ii) a large proportion of women are also employed in some of the other activities most at risk of infection during the epidemic (stores, banks, post offices); and<sup>143</sup> (iii) a high proportion of women are also employed in activities that sustained the greatest economic loss (the accommodation and food sector, tourism sector and specialised services). Also, isolation within family units brings certain risks, such as additional exposure to domestic violence (Queisser, 2020; WHO, 2020a).

**In Slovenia, volunteering has a long history and is very widespread, which has also been shown during the COVID-19 epidemic, when many volunteers joined the activities aimed at mitigating the consequences of the epidemic that were organised by voluntary organisations and the civil protection service.** In 2016, Slovenia's share of the population who regularly performed unpaid volunteer work (the latest available data) exceeded the EU average and had increased compared to 2012.<sup>144</sup> The results of a survey from July 2020 show that, during the epidemic, Slovenian volunteers did more hours of volunteer work per week than volunteers in most EU Member States (Eurofound, 2020a).<sup>145</sup> According to Slovene Philanthropy, the number of volunteer hours worked in

the field of protection and rescue increased the most, whereas it decreased in all the volunteering activities that are carried out in groups and were cancelled or curtailed due to restrictive measures (intergenerational workshops and other activities for the elderly, activities in youth centres, camps for children and adolescents, etc.). Volunteering offers people the possibility to gain new knowledge and experience and remain active and socially integrated even if they lose their jobs, retire or find themselves in other circumstances, which increases satisfaction and has a positive impact on their mental and physical health (Jamšek et al., 2015). In 2019, volunteers in Slovenia carried out over eleven and a half million hours of volunteer work, mostly in the field of social activities (almost 63% of all volunteer hours), followed by the fields of education and culture and arts (MJU, 2020). The least amount of organised and recorded voluntary activity is generally in the age group up to 18 years (MPA, 2020a), so it makes sense to promote volunteering among young people, as many examples of good practice show that volunteering experiences contribute to building children's self-esteem, channelling their energy into good deeds and strengthening their social sensitivity (Jamšek et al., 2015).

<sup>141</sup> In the EU's Strategy for Gender Equality 2020–2025, the EC (2020a: 2) notes that »while the gender gap in education is being closed, gender gaps in employment, pay, care, power and pensions persist« and that »too many people still violate the principle of gender equality through sexist hate speech and by blocking action against gender-based violence and gender stereotypes«. Meanwhile the EIGE (2020b) calculated that it would take another 60 years to achieve the gender equality target in the EU, based on the trends before the COVID-19 epidemic.

<sup>142</sup> Numerous studies show that vulnerable groups, including women, are more exposed in times of crisis, which was also demonstrated during the global financial crisis (Furceri et al., 2020; WEF, 2020; EIGE, 2020b; UN, 2020; EC, 2020a; Pavinelli, 2019).

<sup>143</sup> For more information, see Mascherini and Bisellon, 2020, and Torrejon Perez et al., 2020.

<sup>144</sup> In Slovenia, 34% of respondents (EU: 32%) took part in volunteering, of whom 12% did volunteer work regularly (EU: 10%) (Eurofound, 2016).

<sup>145</sup> In the last month before the survey, volunteers in Slovenia did an average of two hours of volunteer work per week (EU: 1.4 hours), with a higher number of volunteer hours recorded only in Cyprus (2.8 hours) (Eurofound, 2020a).



### Box 5: Healthcare and long-term care challenges before and during the COVID-19 epidemic

**Before the epidemic, development challenges relating to the capacity of the healthcare system and long-term care were linked to the ageing population and the increasing burden of chronic diseases.** In the last decade, the biggest challenge that the healthcare system faced with regard to its capacity was, similarly to all EU Member States, managing the growing number of patients with chronic degenerative diseases and the growing number of persons over the age of 80 who are at risk of fragility fractures and often suffer from several chronic diseases, rendering them dependant on others and in need of long-term care. With the help of new technologies and treatment procedures and due to the need for greater system efficiency, new models of acute care were successfully introduced in Slovenia: at the primary level, changes in the treatment of chronic diseases were implemented and family medicine model practices and health promotion centres were introduced, while at the secondary level, one-day procedures were introduced, and inpatient treatments, the length of stay and the number of beds in acute care departments were reduced (Albreht, 2021) (Figure 31). On the other hand, Slovenia did not follow the needs with regard to building capacities for the treatment of elderly and multi-morbid patients, failing to introduce new capacities for non-acute care, long-term inpatient care, early rehabilitation, integrated long-term care and home care. The main reasons for this are the failed reform of long-term care, the complexity of the integration of the healthcare and the long-term care systems, which requires cooperation and joint action of two line ministries in Slovenia, and vague financing plans for the new long-term care system. In Slovenia, formal long-term care is still mainly implemented as institutional care; due to the pending reform, which would enhance the development of home care, however, the capacity-building in institutional care was nearly brought to a halt, thus greatly increasing waiting times for admission to homes for the elderly. According to the Association of Social Institutions of Slovenia (2021), there were 12,899 urgent applicants waiting for admission at the end of 2020, with the total number of applications amounting to 26,552. In February 2021, concessions were granted for an additional 1,280 places in homes for the elderly.

**Slovenia entered the epidemic with its healthcare and long-term care systems facing a lack of financial and human resources.** In 2018, Slovenia achieved 85% of the EU average and 75% of the average of the most developed EU-14 countries in terms of total health expenditure per capita (see Indicator 3.6). It lagged further behind in long-term care, with public expenditure per capita reaching only 50% of the EU average and only 38% of the EU-14 average (see Indicator 3.21). The consequences of the lack of financial resources in both systems are reflected in understaffing, long waiting times and unmet needs (see Indicator 3.4). In healthcare, the biggest problem is the shortage of doctors at the primary level and of community nurses, with the community nursing service becoming increasingly overwhelmed by providing care for the elderly at home due to inadequately developed home help services. There is also a shortage of nurses in hospitals, especially in the most challenging wards and intensive care units.<sup>1</sup> In homes for the elderly, staffing standards have been inadequate for many years, as the proportion of people that need the most demanding care keeps increasing. There are too few nurses trained to work with elderly and frail patients and there is a severe shortage of nursing staff.

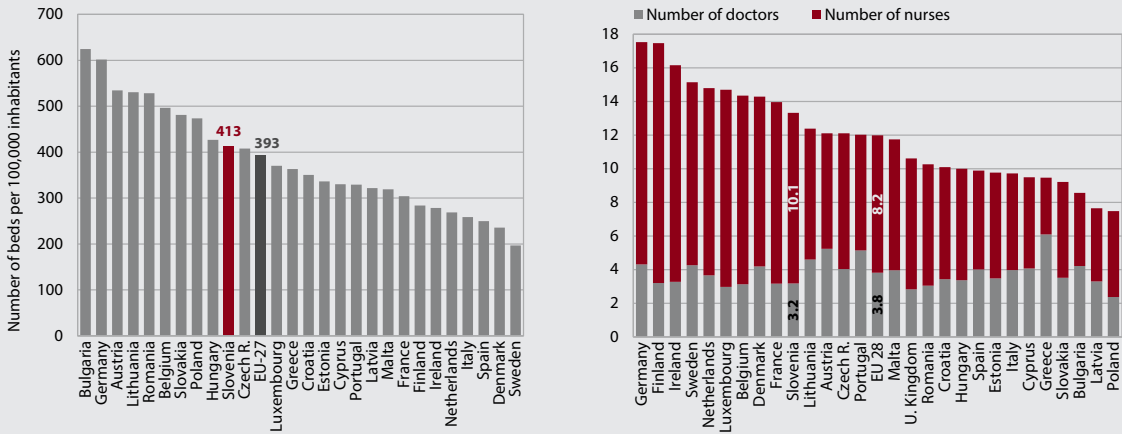
**A high contribution from the state budget was very important for the financing of healthcare in 2020, and the HIIS spent almost all its savings from previous years.**<sup>2</sup> With regard to the structure of healthcare financing resources, Slovenia differs from other countries in terms of a low share of budgetary resources and a high share of contributions by the working age population, which is why the revenues of the system strongly depend on fluctuations in wages and employment.<sup>3</sup> In 2020, despite the measures taken by the Government, the number of the working age population insured with the HIIS (employed and self-employed) decreased and the number of inactive persons increased. At the same time, expenditures for the control of the COVID-19 epidemic increased sharply, so under the anti-coronavirus laws and amendments to the ZIPRS, additional funds for the HIIS were provided from the state budget, this for exemptions from contributions for companies and sole proprietors and for the payment of allowances due to additional burdens to HIIS employees. In addition, the HIIS provided indirect payments from the state budget to healthcare service providers that were intended for covering the loss of income

<sup>1</sup> According to the NIJZ, there was a shortage of at least 5,000 nurses in Slovenia at the end of 2019 (MZ, 2020). In 2018, there were 21,031 nurses and healthcare assistants in employment, which is 54% more than in 2000. The number of employees in nursing care per 1,000 inhabitants (10.1) also reached the highest level in the last 20 years, exceeding the EU average. Another encouraging point is that there has been a considerable increase in the number of nurses over the last ten years. In 2009–2018, the number of nurses increased by 71% and the number of healthcare assistants increased by 14%.

<sup>2</sup> In 2020, the HIIS operated at a deficit of EUR 87 million, which was covered by the reserve and general fund. Due to the reported deficit of EUR 87 million, the assets on the HIIS accounts decreased, so that as at 31 December 2020 the assets amounted to EUR 33.8 million (EUR 120.7 million in 2019).

<sup>3</sup> For more information, see IMAD (2019b).

**Figure 31: Number of acute hospital beds (left) and numbers of doctors and nurses (right), 2018**



Sources: Eurostat, 2021; NIJZ, 2021e (for Slovenia), OECD/EU, 2020 (right). Note: The number of nurses includes practicing nursing professionals, midwives and healthcare assistants.

and the material costs related to preventing the spread of the epidemic and for reimbursing sickness benefits<sup>4</sup> (HIIS, 2021).<sup>5</sup> Furthermore, healthcare service providers received funds directly from the Ministry of Health in order to pay allowances to all healthcare workers for special burdens during the epidemic, cover the costs of medical and protective equipment, and increase capacities.

**The epidemic has disrupted access to health services and untimely medical treatment has greatly increased the risks of other (non-COVID) diseases.** Due to the epidemic and the measures adopted, the provision of the majority of healthcare services was limited in 2020, both at the primary level and in hospitals. At the primary level, in-person visits have been partially replaced by remote consultations, but access has been limited due to busy telephone lines and the non-use of email by some population groups, especially the elderly. The number of remote visits/consultations decreased by 1.7% on average in comparison to 2019, whereas it had increased by around 3% on average each year before the epidemic. The number of visits to the doctor decreased the most among those over 65 and under 19 years of age (clinic for school-age children). On an annual basis, there was a decline of 10% in the preventive programme at the primary level, as it was completely halted in the first wave of the epidemic and hospitals faced staff shortages in the second wave of the epidemic – a large part of the staff from family medicine model practices and health promotion centres was redeployed to provide services associated with COVID-19. The number of treatments in specialist ambulatory services decreased even more so than at the primary level, although specialist treatments were also partially carried out remotely.<sup>6</sup> The number of specialist treatments decreased by 20% and imaging procedures by 15%. The programme planned in specialist ambulatory services for 2020 was left unrealised in nearly all activities, with the exception of the radiotherapy programme intended for the treatment of cancer patients. The number of inpatient treatments also fell sharply, by 15% on an annual basis; in the first wave of the epidemic, limited numbers of new admissions were a result of a lack of protective equipment, while in the second wave of the epidemic they were mainly caused by the diversion of available capacities towards care for patients with COVID-19 (HIIS, 2021a). As a result of poor accessibility of healthcare in 2020, it is expected that waiting times will be prolonged, health status indicators will deteriorate and health inequalities will be exacerbated in 2021 and future years (for more information, see Section 3.1). The epidemic also caused an increase in the absence from work due to illness (see Indicator 3.21). In the first wave, emergency measures, such as the halting of public transport and the closure of schools and kindergartens, led to a reduction in the number of work days lost due to illness. In the second wave, however, the number of days of absence from work due to illness increased sharply due to the spread of the epidemic, largely due to the isolation of many patients (and family members) with COVID-19.

<sup>4</sup> In the first wave, sickness benefits from the first day of absence from work were covered by the HIIS and not by employers.  
<sup>5</sup> For more information, see HIIS, 2021, Section 5.1.2. The effects of measures to mitigate the consequences of the epidemic on the operation of the HIIS.  
<sup>6</sup> In autumn 2020, the HIIS reintroduced services for the calculation of hours worked with patients at the level of specialist ambulatory services.

**Despite a number of adopted measures, the epidemic had a severe impact on homes for the elderly.**

In order to limit the spread of the virus, visits were severely restricted in homes for the elderly and other social care institutions, and separate zones and accommodations were set up for infected and uninfected residents. Due to staff shortages, retired personnel, students and upper secondary students in health sciences, healthcare professionals from local community health centres, and volunteers with nursing knowledge became engaged through the civil protection service and religious organisations, and unemployed persons got involved through public works. In September, EUR 26 million was provided for in the fourth anti-coronavirus package for 550 additional jobs in 2020 and 2021 (by the end of the year, some 350 appointments were made) (see also Section 3.2). All funds to cover expenditure related to the control of the epidemic were provided from the state budget: the purchase of protective equipment, employee allowances for work in grey and red zones (+30% of basic salaries) or for redeployment (+20%), and the coverage of loss of income due to vacant capacities in homes for the elderly (at the end of the year, there were about 2,600 unoccupied beds in homes for the elderly due to the restrictions on admission of new residents and numerous deaths) (HIIS, 2021a).



3.2 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 low income and wealth inequality; (ii) creating sustainable systems of social protection and care and child protection; (iii) ensuring a good quality of the living environment; (iv) strengthening cooperation, solidarity and volunteering; 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.

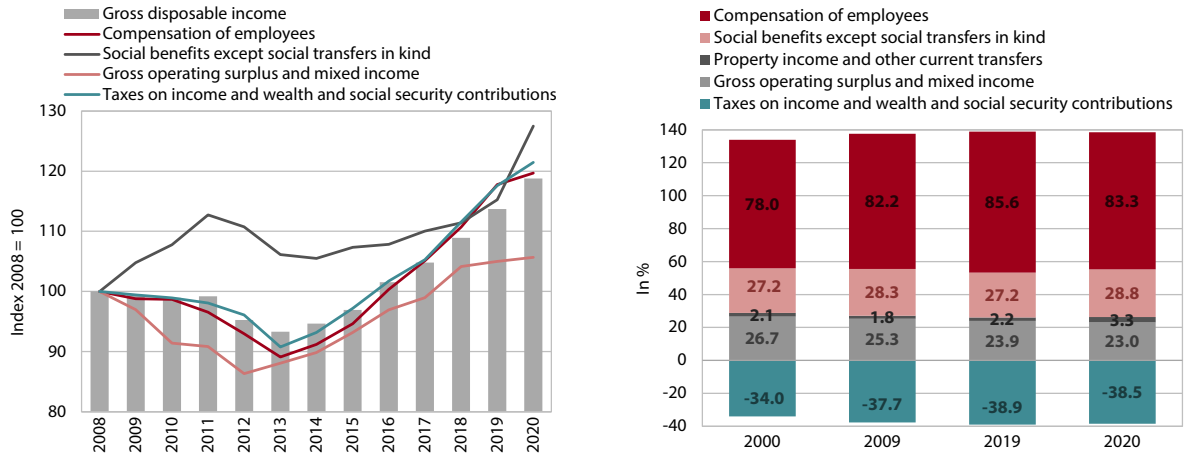
SDS 2030 performance indicators for Development Goal 3:

	Latest data		Target value for 2030
	Slovenia	EU average	
Social exclusion rate in %	14.4 (2019)	21.4 (2019)	< 16
Income distribution inequality, income quintile ratio (S80/S20)	3.4 (2019)	5.0 (2019)	< 3.5
Experience of discrimination in %	9 (2020)	16 (2020)	< 10

Following accelerated growth in 2016–2019, the gross disposable household income<sup>146</sup> further increased in 2020, despite the decline in economic activity, whereby this increase can be mainly attributed to government measures aimed at mitigating the effects of the epidemic. In the period of the global financial crisis, the compensation of employees, which accounts for the largest part of income, decreased markedly and, in addition to the decline in social benefits since 2012, had a significant impact on the decline in income in 2009–2013 (see

Figure 32). With the economic recovery accompanied by growth in employment and wages, along with the gradual easing of austerity measures, income has increased since 2014 and exceeded the 2008 income level for the first time in 2016. The accelerated growth in 2016–2019 was interrupted by the COVID-19 epidemic in early 2020, which resulted in a marked decline in economic activity due to the suspension of non-essential service activities<sup>147</sup> and disruptions in industry and other service activities. The consequent deterioration in the labour market situation was mitigated by the adoption

Figure 32: Real growth of the main components of gross disposable income (left) and its structure (right)



Source: SURS, 2021; calculations by IMAD.

<sup>146</sup>Gross disposable household income comprises gross household income from employment, social benefits in cash, operating surplus, and mixed income and property income less contributions and taxes.

<sup>147</sup>The ordinances on the temporary suspension of the sale of goods and services to consumers in the Republic of Slovenia, 2020.

of emergency job retention measures; the decline in gross disposable income was also prevented by various measures to help the population. As a result, social benefits increased significantly and, with the substantial help of measures, the compensation of employees was also slightly higher in 2020.<sup>148</sup>

**The median equivalised disposable household income increased in 2009–2019, with the median equivalised disposable income of the less educated growing at an above-average pace and, on the other hand, rising slowly with regard to the income of persons with a high-level education and those belonging to the age group of 65 years and over.** The increase in the compensation of employees in 2016–2019, i.e. the improvement in the median income of the working age population, contributed to reducing the gap to the average median income in the EU.<sup>149</sup> In the last decade, the gap between the median income of persons over the age of 65 and the total median has increased in Slovenia, which is a result of a modest growth and reductions in the average pension in 2010–2016, mainly due to non-adjustment. The period 2009–2019 is also characterised by a rapid growth of the median equivalised disposable income of the less educated, which is related to the increase in the minimum wage (see Indicator 3.12). The growth of the median income of highly educated persons in 2009–2019 was noticeably lower than the growth of the median equivalised disposable income of persons with an upper secondary or a low-level education. This was influenced by a progressive decline in salaries in the public sector during the fiscal consolidation period (2013), as well as an increase in the share of young people with tertiary education occupying positions that require a low-level or an upper secondary education (see Section 2).

**Income inequality in Slovenia remained one of the lowest in the EU in 2019 and, according to the criteria of wealth inequality, Slovenia ranked around the middle of the EU Member States that are members of the OECD.**<sup>150</sup> The ratio between the lower and upper quintile income groups was 1:3.4 in 2019 and thus within the SDS 2030 target for the third consecutive year (Eurostat, 2021; see Indicator 3.10). For many years, low income inequalities in Slovenia, which are ensured by the system of progressive personal income tax and, to some extent, also by social transfers, have been shown also by the Gini coefficient. In most countries, however, wealth inequality<sup>151</sup> is higher than income inequality, as OECD data show that the share of wealth held by higher income groups is much higher than the share of their income. Data for 2015 (the last year available) showed that, in the OECD countries, the wealthiest 10% of households controlled about half of the wealth in the country, which is twice as much as for disposable income. In Slovenia, the wealthiest 10% owned 48.6% of wealth and 20.2% of income (OECD, 2018).

**Slovenia's social exclusion risk rate reached its lowest level in 2019; however, the share of beneficiaries of financial social assistance intended for the poorest has increased since 2018.** The social exclusion risk rate<sup>152</sup> in Slovenia has been consistently lower than the EU average. It peaked in 2013 but reached the lowest level in comparison to all previous periods and other EU Member States with the exception of the Czech Republic by 2019 (EU-SILC-2019 with income from 2018) (see Indicator 3.9). Estimates by the European Commission and other institutions show that, despite various measures implemented by national governments, the at-risk-of-poverty rate increased in the EU Member States in 2020 due to the COVID-19 epidemic, especially among the poorest population groups (EC, 2020c and 2020d; EP, 2020a and 2020b; EAPN, 2020a and 2020b; Schutter, 2021, etc.). For many years, social transfers have been more effective in reducing the at-risk-of-poverty rate in Slovenia than the EU average. The share of beneficiaries of financial social assistance (funds intended for the poorest) increased in June 2018 and, due to the epidemic, was 7.8% higher on a year-on-year basis in the period January to August 2020 (MDDSZ, 2021a). A series of international analyses show that the financial sustainability of households<sup>153</sup> in some Member States (including Slovenia) was low before the outbreak

<sup>148</sup> Measures with regard to social benefits: extraordinary one-off public transfers to various population groups (pensioners, students, parents, recipients of social assistance benefits and income support) and the expansion of the range of persons entitled to unemployment benefits. Measures with regard to the compensation of employees: compensations for employees who were temporarily laid off, had to stay at home due to force majeure or quarantine, and worked part-time, exemptions from the payment of contributions for pension and disability insurance for private sector employees who worked during the first wave of the epidemic, employee allowances for hazards and special burdens, allowances for work in high-risk environments in the public sector and allowances for work during the epidemic in the private sector, and the coverage of sickness benefits due to COVID-19 from the first day of absence onwards. Measures with regard to other transfers: payments for tourism vouchers. Measures with regard to gross mixed income: payments of a monthly basic income to the self-employed and the exemption from the payment of social security contributions for the self-employed, the partial compensation for income lost due to quarantine or force majeure, the partial reimbursement of uncovered fixed costs, and the reimbursement of costs related to rapid tests (ZIUZOP, 2020; ZZUOOP, 2020; ZIUPOPDVE, 2020; the Decision to extend the validity of vouchers for the improvement of the economic situation in the field of tourism consumption, 2020).

<sup>149</sup> With regard to the median equivalised disposable income in the PPS, Slovenia's lag behind Austria, which has the highest median after Luxembourg, was 30% in 2019, which is 4 p.p. less than in 2016.

<sup>150</sup> The wealth distribution analysis is made only for the OECD countries.

<sup>151</sup> Wealth inequality is measured by the ratio of average net wealth to its median or by the share of wealth held by those at the top of the distribution (the wealthiest 10%, 5% or 1%).

<sup>152</sup> The synthetic indicator of the social exclusion risk rate consists of three dimensions: (i) at-risk-of-poverty rate (share of persons living in a household with an equivalised disposable income of less than 60% of the national median equivalised income); (ii) severe material deprivation rate (see Indicator 3.16); and (iii) the share of persons living in low work-intensity households (less than 20% of the total work potential of the household).

<sup>153</sup> Financially fragile households are not necessarily income poor but have insufficient financial resources to cover a loss of income for a three-month period (Stiglitz, Fitoussi and Durand, 2018).

of the epidemic (OECD, 2020d; ECB, 2020; Demertzis, Domínguez-Jiménez and Lusardi, 2020; Midões, 2020; see Indicator 3.16) and that the epidemic has further exacerbated the situation (Eurofound, 2020a), which may have a negative impact on the social exclusion and material deprivation of the population in the coming years if no comprehensive and coordinated social policies are adopted (IMAD, 2021).

**In Slovenia, access to education, which is good in international comparison, was also affected negatively by the COVID-19 epidemic in 2020 and the consequences were felt especially by certain vulnerable groups.** Access to pre-school education has increased over the last ten years, reaching the EU average (Eurostat, 2021), while access to basic and upper secondary education is above the EU average.<sup>154</sup> The enrolment of young people (20–24 years) in tertiary education also remains the highest among EU Member States, although it has been declining since the 2013/2014 school year (SURS, 2021; Eurostat, 2021). The partial closure of kindergartens and the complete closure of educational institutions due to the COVID-19 epidemic in 2020 made it difficult for parents of schoolchildren to reconcile work and family life and even affected the health, psychosocial development and/or well-being of some children (see Section 3.1). Experts emphasise the importance of children's involvement in childcare, upbringing and education in order for them to develop their potential and achieve social inclusion (OECD, 2017a; EC/EACEA/Eurydice, 2019; IMAD, 2021). They also assess that remote schooling has had a negative impact on the quality of life of children from low socio-economic backgrounds and those who required individual professional assistance from specialised educators and psychologists before the epidemic (OECD, 2020b and 2020c; Di Pietro et al., 2020; Carretero et al., 2021; Human Rights Ombudsman, 2020). In 2020, due to the impact of the epidemic on citizens' daily lives, the distress of families with children with special needs who were left without individual professional assistance and systemic support stood out the most. According to the OECD (2020b) and the EC (2020e), the impact of the epidemic may have longer-term consequences, which will be most notable in the more vulnerable groups of children, i.e. for those who were in an unequal position even before the epidemic (Cankar, 2020; IMAD, 2021; see also Indicator 2.4). These consequences may also be reflected in a decrease in students' motivation, poorer learning outcomes or early school leaving, which is why additional attention should be paid to the learning outcomes of vulnerable groups of children. Inequalities in access to lifelong learning that have emerged in recent years have increased during the epidemic, especially with regard to the less educated and the elderly (see Indicator 2.6 and Section 2.1), as these groups have the

most limited access to media on the internet and to new technologies and also lack digital skills.

**Over the last decade, access to healthcare has been very good in terms of healthcare benefits coverage, however, waiting times have become a major problem due to the lack of healthcare workers.** In Slovenia, there are almost no unmet healthcare needs due to financial reasons (see Indicator 3.4), which is related to a wide range of healthcare benefits that are covered by compulsory and complementary voluntary health insurance. The coverage of the population with compulsory insurance is almost 100%, besides 95% of persons liable for co-payments are included in the complementary voluntary insurance scheme.<sup>155</sup> Direct out-of-pocket expenditure, which is the most problematic in terms of affordability, has remained at the low level of 12% to 13% of total health expenditure for many years, which is well below the EU average (2018: 22%) (see Indicator 3.6).<sup>156</sup> Data from the Household Budget Survey show that the share of health spending in total household consumption increased from 1.8% in 2008 to 2.6% in 2018, but it was still low compared to other European countries (WHO, 2019). Slovenia stood out the most in terms of the very low share of out-of-pocket expenditure on medicinal products, as most co-payments for prescription-only medicines are covered by complementary voluntary health insurance scheme (WHO, 2019). However, inequalities in health expenditure among households have risen sharply (see Figure 33): the fifth highest-income households spent almost twice as much on health in 2018 as they did ten years ago, while the amount spent on health by the fifth lowest-income households remained the same. With regard to amounts per household member, the ratio between out-of-pocket spending in the first and fifth quintiles therefore increased significantly (from 1:2.3 in 2008 to 1:3.8 in 2018). The increase in health expenditure in the highest-income households may be partly associated with greater health consciousness, but even more with the rapidly increasing waiting times in the public healthcare network and more frequent visits to private healthcare providers, as these households can more easily afford direct payment for healthcare services. This leads to an increase in health inequalities in the country. Waiting times are also the main reason for unmet healthcare needs, which are significantly higher in Slovenia than the EU average (see Indicator 3.4 and, for more information, see IMAD, 2020a and IMAD, 2021).

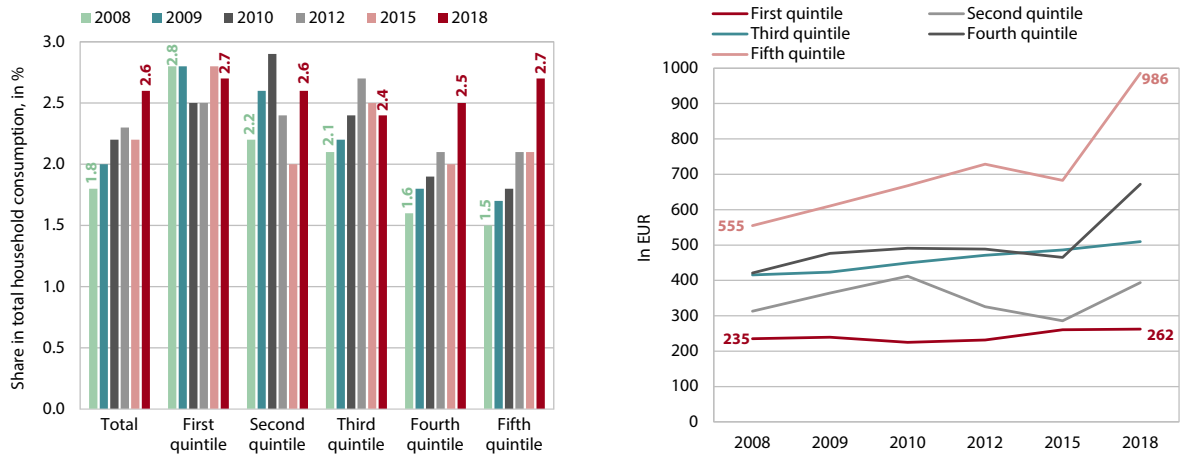
**In recent years, the health promotion centres have been taking additional care of vulnerable population groups.** Improving access to primary healthcare and to prevention and public health programmes for vulnerable groups is crucial to reducing disparities

<sup>154</sup> In the 2019/2020 school year, the enrolment of young people (aged 15–19) in upper secondary education in Slovenia was slightly higher than ten years ago.

<sup>155</sup> For more information, see IMAD, 2019b and 2021.

<sup>156</sup> According to WHO recommendations, direct out-of-pocket expenditure is acceptable until it accounts for around 15% of health expenditure.

**Figure 33: Share of households' health spending by income quintiles in Slovenia (left) and average out-of-pocket health spending per household by income quintiles (right)**



Source: SURS, 2020. Note: Calculations of household consumption are based on the Household Budget Survey.

in access to healthcare between income groups. In Slovenia, due to inequalities emerging in recent years, special attention has been paid to the expansion of health promotion centres, family medicine model practices, and counselling and screening services at the level of primary healthcare. It is also planned to upgrade health education centres, transforming them into health promotion centres and extending the new model to all health centres by 2025. The main purpose is to combine preventive and integrated treatment with family medicine model practices, where specially trained nurses treat chronic patients, thus promoting a more disciplinary approach to care, reducing the workload of doctors and contributing to improving access to primary healthcare, which is a growing problem due to the shortage of general practitioners.<sup>157</sup> In 2020, 29 new teams of general practitioners were planned, but only 11.6 teams were established because of the shortage of new entrants (HIIS, 2021).

**The COVID-19 epidemic has had a major impact on ensuring access to healthcare.** The main problem is the lack of staff, especially intensive care staff and nursing staff in hospitals and homes for the elderly. In the first wave of the epidemic, certain healthcare services were interrupted due to the lack of protective equipment, while in the second wave, healthcare services were provided to a lesser extent due to the measures adopted, and some hospital activities were interrupted mainly due to the rapid growth in the number of hospitalised persons and the need for additional capacities for patients with COVID-19 (for more information, see Box 5).

**The epidemic has exacerbated problems in long-term care, especially because of staff shortages in homes for the elderly.** In 2019, 19% of persons over the age of 65 were severely disabled in Slovenia (EU: 16%). The share of persons over the age of 80 who are dependent on the help of others was very high, reaching as much as 41% in 2019 (EU: 32%).<sup>158</sup> At the same time, the share of public expenditure on long-term care in GDP (0.9%) is significantly lower than the EU average (1.3%) and more than half lower than in the most developed European countries (see Indicator 3.7). Access to long-term care services has been deteriorating for more than a decade in terms of care costs for recipients. An OECD study showed that, in Slovenia, persons with a medium level of disability cannot cover co-payments for formal care from their income (Hashiguachi and Llana-Nozal, 2020). The consequences are high unmet needs for long-term care: according to the SHARE survey from 2017, over 5% of persons over the age of 50 received no care, despite needing help with at least one basic activity of daily living (ADL). In particular, the problem lies in poorly developed home care services: in 2017, only 3.9% of persons over the age of 50 received home care, which is the lowest amount among the 18 countries that were included in the survey (IER, 2021). The Personal Assistance Act, which entered into force in 2019, has improved the opportunities of persons with disabilities to live independently at home, but public funds for this purpose are growing exponentially.<sup>159</sup> Due

<sup>157</sup> The difficulties in selecting general practitioners were exacerbated by the adoption of an agreement between the Government of the Republic of Slovenia and the Fides trade union (2018), which defined new, lower norms for general practitioners, allowing them to refuse to take on new patients when their number of patients reaches 1,895 (HIIS, 2021).

<sup>158</sup> Eurostat, 2021, based on EU SILC.  
<sup>159</sup> As the Personal Assistance Act did not clearly define that persons eligible for personal assistance should only be persons with disabilities who are in employment and need a personal assistant for unhindered participation in the labour market, increasingly more long-term care providers kept applying as personal assistants, even though their work involves helping persons who are not in employment with personal basic and instrumental activities of daily living (ADL and IADL). Due to the inadequately regulated institution of the home care assistant (the provider of this type of assistance is not in an employment relationship, has a lower salary than a personal assistant, has a higher

to poorly developed home care or community-based care, the waiting times for admission to institutional care are getting longer from year to year. The share of the population over the age of 65 in institutional care in Slovenia is higher than the EU average,<sup>160</sup> but the problem lies in outdated standards regarding staff, of which there is a critical shortage in homes for the elderly, and sometimes inadequate accommodation infrastructure. In 2020, the staffing situation in homes for the elderly deteriorated markedly due to the COVID-19 epidemic.<sup>161</sup> In September, the ZZUOOP (2020) allocated additional funds for around 550 new jobs in homes for the elderly, but due to the lack of suitable workers on the labour market, only 323 employments were made by the end of 2020 (see Box 5). Therefore, employees in community health centres, students, retirees and volunteers had to get involved to resolve the crisis. In autumn 2020, the proposal for a new Long-Term Care Act (MZ, 2020) was under public discussion for the third time in the last ten years, but coordinating talks with social partners are still underway and an appropriate solution to increase financial resources for the new compulsory long-term care insurance has yet to be found.<sup>162</sup>

**The housing deprivation rate has improved significantly in recent years.** Due to different approaches to collecting data on the condition of housing, data for Slovenia are not fully comparable with other EU Member States (see Indicator 3.15). The share of the population living in poor housing conditions has decreased since 2011 and reached 20.6% in 2019 (EU: 12.7%). Housing deprivation can be reduced through housing renovation, which is necessary due to the predominantly old and poorly maintained housing stock. The financial capacity of households living in lower quality and overcrowded housing is often low, and households with older members often cannot

afford renovation. The housing cost overburden rate among households was low in 2019 (4.1%; EU: 9.4%); it reached 21.9% among households below the at-risk-of-poverty threshold, but this was still lower than the EU average (35.4%) (Eurostat, 2021). In 2015, Slovenian households spent 1.4 times more on energy than the EU-28 average (Eurostat, 2021). In 2018, according to an experimental calculation, 4% of Slovenian households were energy poor.<sup>163</sup> This is the result of a combination of low incomes, high energy expenditure and poor energy performance of buildings. Tackling energy poverty is one of the key priorities of the EC<sup>164</sup> and is closely linked to energy renovation,<sup>165</sup> which has many benefits as it reduces household expenditure, minimises air pollution (replacement of heating sources) and improves human health, while also reducing social exclusion and increasing economic growth and prosperity (EC, 2020f and 2020g). The extreme form of housing exclusion and poverty is homelessness, which is also on the rise in Slovenia (IMAD, 2021). Estimates suggest that rising unemployment, lower labour incomes and lower creditworthiness due to the COVID-19 epidemic could worsen the affordability of housing for young people and low-income groups, even if housing prices fall, and increase the need for social and more affordable rental housing (Moody's, 2020).<sup>166</sup>

**Leisure activities that strengthen social contacts and help to maintain strong social networks were interrupted for the most part of 2020 due to the epidemic.** The attendance at cultural events and the participation in sports activities have been higher than the EU-28 average in recent years (Eurobarometer, 2017b and 2017c), but the epidemic severely curtailed most leisure-related services in 2020.<sup>167</sup> Although part

workload, does not have the benefit of annual leave, etc.), most of the home care assistants, as well as other providers of long-term care, have registered as personal assistants. Public expenditure on personal assistance therefore increased from EUR 3.8 million in 2018 to EUR 36.8 million in 2019 and EUR 84.4 million in 2020 (MDDSZ, 2021b). In 2021, the adoption of an amendment to the Personal Assistance Act is expected; this envisages the introduction of additional conditions for the assessment of eligibility for personal assistance services and certain restrictions for contractors.

<sup>160</sup> In 2018, there were 4.7% of persons of age over 65 that received institutional care in Slovenia, while there were 4.0% of such persons on average in the OECD (OECD Stat, 2021).

<sup>161</sup> By the end of 2020, the number of confirmed cases of SARS-CoV-2 among care recipients reached 10,800, which is nearly half the number of all long-term care recipients in institutions. There were 1,781 care recipients who died, which amounted to 57% of all COVID-19 deaths in Slovenia. An analysis of long-term care staff (Smolej Jež et al., 2016) showed that, in 2015, formal long-term care services in Slovenia were provided by 11,514 carers, i.e. 2.7 carers per 100 recipients of long-term care over the age of 65, which is significantly less than the EU-27 average (3.8 carers per 100 recipients) (for more information, see IMAD, 2021). In 2019, the audit conducted by the Court of Audit of the Republic of Slovenia (2019) drew attention to low staffing standards in homes for the elderly.

<sup>162</sup> At the end of 2020, a pilot testing of solutions for long-term care arrangements, provided for by the proposal of the new Long-Term Care Act in 2017, was completed. Care recipients were very satisfied with the new services of integrated long-term care (Rajer, 2020).

<sup>163</sup> There is no single definition of energy poverty. For the purposes of preparing the National Climate and Energy Plan, SURS, together with representatives of the Faculty of Economics and the Energy Directorate at the Ministry of Infrastructure, proposed the following definition of energy poverty: "Energy poverty is a situation in which a household is unable to ensure a suitably warm home (and other energy services, e.g. heating of sanitary water and lighting) at a reasonable price" (Rutar, 2021).

<sup>164</sup> The EC has also included it in the European Green Deal (EC, 2019b) and the Renovation Wave for Europe (EC, 2020i), which is one of the main promoters of the Recovery Plan for Europe. In the legislative framework, the EC also stipulated that Member States must develop a suitable definition of energy poverty according to the common European approach and principles and define indicators to measure it and measures to reduce it. As energy poverty is a multidimensional phenomenon, various policies and stakeholders at all territorial levels must be involved in the fight against it (EC, 2020f, 2020g and 2020h).

<sup>165</sup> The Government has adopted a long-term strategy for the energy renovation of buildings until 2050, which envisages a significant improvement in energy performance, a reduction in greenhouse gas emissions and an increase in the use of RES in buildings (MZI, 2021).

<sup>166</sup> In 2019, there was a shortage of 10,000 public rental housing units in Slovenia (Act Amending the Housing Act, 2020).

<sup>167</sup> The Ordinance on the temporary suspension of the sale of goods and services to consumers in the Republic of Slovenia (2020), the Ordinance on the temporary restriction of the gathering of people in public spaces and areas in the Republic of Slovenia (2020), and the Ordinances temporarily prohibiting the provision of cultural and cinematographic services to end-users in the Republic of Slovenia (2020).

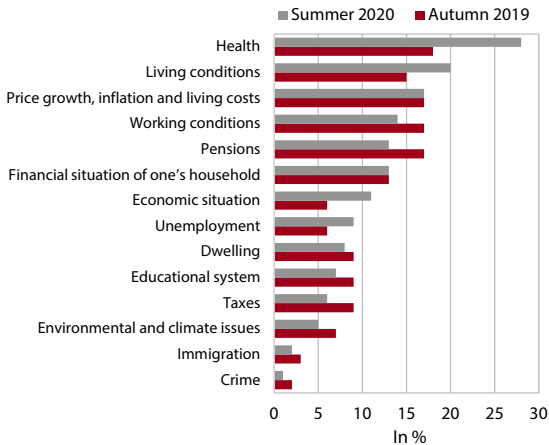


of leisure services and activities have been moved to the digital environment, they have remained inaccessible to the tenth of households that do not have access to the internet (SURS, 2021) and to all those without a personal computer and relevant ICT skills. This held especially true for the elderly, the materially deprived and persons whose socio-economic situation prevents them from participating in leisure activities. All of these people were more at risk of social exclusion than other Slovenian residents. However, there are encouraging data that show that, in June and July 2020, Slovenia's population spent the most time on sports, culture or leisure activities out of all EU Member States (Eurofound, 2020b).

**Life satisfaction<sup>168</sup> declined in 2020 due to the COVID-19 epidemic, but it remained above the EU average.** Personal happiness and life satisfaction, which are important indicators of quality of life,<sup>169</sup> declined as expected after the first wave of the COVID-19 epidemic compared to 2018 (Hafner-Fink et al., 2020); in comparison with other EU Member States, satisfaction remains above the average (Eurobarometer, 2020). In June 2020, the respondents ranked health and living conditions as the two most pressing personal issues, while other social and economic aspects that were more exposed before the epidemic (including pensions, working conditions and taxes, Figure 34) were deemed less pressing. Even more than in Slovenia, health concern was highlighted in Finland, Sweden, the Netherlands, Austria and Ireland (Eurobarometer, 2020), while in other EU Member States the issue of rising prices, inflation and the cost of living remained at the forefront (see Indicator 3.13).

**A decent life can also be affected by exposure to various forms of discrimination, though the prevalence of this is relatively low in Slovenia.**<sup>170</sup> The share of people who have experienced discrimination or harassment has decreased (to 9 %) in recent years and is among the lowest in the EU, with the exception of discrimination in the workplace (33%) (see Indicator 3.11). In view of the expected future trends in the ageing population, the reduction in age discrimination is encouraging. Long-term exposure to various forms of discrimination has negative effects on a discriminated person or group. It can lead to social exclusion and has a

**Figure 34: Share of respondents who selected two of the 14 areas of life they considered most pressing at the time of the survey**



Source: Eurobarometer, 2020.

negative impact on the economic sphere, as it increases the costs of healthcare services, medicines and absence from work due to illness, contributes to the neglecting of available resources, and reduces productivity and social welfare (Kogovšek and Petković, 2007). It is therefore important to make continuous efforts to eliminate all forms of discrimination. Experts point out that since the onset of the COVID-19 pandemic, several forms of stigma and discrimination have been reported in a number of countries, mainly based on ethnic origin, skin colour and Roma origin, including xenophobia directed at individuals who are thought to be responsible for bringing COVID-19 into countries and its spread (UNESCO, 2020).

**During the COVID-19 epidemic, the rate of reporting domestic violence has increased.** Any violence, whether physical, sexual, psychological or/and economic, has an impact on well-being and endangers health, physical integrity, dignity and often the lives of victims (Eurobarometer, 2017b). More vulnerable social groups, especially women, children and the elderly, are more likely to be exposed to it, and it occurs in both public and family life. Violence is a traumatic experience for any gender, but historical facts, research, and the experience of governmental and non-governmental organisations show that women are more frequently exposed to domestic violence (Matko and Horvat, 2016). According to the latest available data, violence by a partner, which often remains unreported, was experienced by fewer women in Slovenia than the EU average (FRA, 2012).<sup>171</sup> In

<sup>168</sup> In the analysis of the Eurobarometer data (2020), the combined answers are "satisfied" and "very satisfied", while in the analysis of Slovenian public opinion (Hafner-Fink et al., 2020) the answers range from 6 to 10 points on the ten-level Likert scale.

<sup>169</sup> Quality of life is a fundamental concept of economic and social development which, in addition to subjective perceptions (life satisfaction, financial situation, happiness, etc.), is also measured by indicators of health, material status (income, household consumption, housing conditions, employment, etc.) and a number of other indicators (work/leisure balance, lifelong learning, safety, crime, the environment, etc.).

<sup>170</sup> Discrimination is unequal treatment of an individual or a group of people in different areas of social life (e.g. employment, education, access to goods, etc.) because of a particular personal circumstance (ethnic origin, race, age, gender, sexual orientation, gender identity, religion or belief, disability, and others).

<sup>171</sup> In 2012, the share of women who were physical and/or sexually abused by a partner stood at 13% (EU: 22%). The share of women who were subjected to psychological violence by their partner was higher, at 34% (EU: 43%). The rate of reporting violence to the police and other institutions was low, as the violence and its consequences are dealt with by victims themselves or with the help of friends and family (violence is often considered a private matter).

2020, Slovenia witnessed a 10.7% increase in domestic violence compared to 2019; the victims included 1,349 females and 262 males (Police, 2021), of whom 135 were children (69 boys and 66 girls up to 14 years of age) (Police, 2021). Due to lifestyle changes amid the COVID-19 epidemic, other countries have also seen an increase in cases of domestic violence (UN Women, 2020). Confinement to a living space, insecurity, and lack of social interaction with the surrounding environment and a wider social network have led to an increase in distress, disagreements and conflicts in many families, which may have escalated into physical, psychological and economic violence. Experts call attention to the fact that cases of domestic violence are likely to be increasing, but victims do not always report them since at the time of rising cohabitation, the perpetrators may have more control over victims, which makes it more difficult for the victims to seek help (Dadničar, Drobnjak and Filipčič, 2020).

**Trust in people during the epidemic was higher than in previous years, while social and societal relations were more often maintained via modern technology.**<sup>172</sup> The results of the European Social Survey suggest that between 2014 and 2018 trust in people increased in Slovenia, though it remained lower than the average of the countries included in the survey<sup>173</sup> (CJMMK, 2018). In 2018, most respondents had at least one person in their lives to talk to about personal matters. Meanwhile 53% of respondents had frequent contacts with relatives, friends or colleagues (at least once a week), which is similar to previous years and also less than the average of the countries included in the survey (57%). According to a survey of Slovenian public opinion (Hafner-Fink et al., 2020) carried out during the first wave of the COVID-19 epidemic, 26.2% of respondents in Slovenia thought that the majority of people could be trusted, which is slightly more than in previous years. Respondents trusted most their families and relatives, who were at the same time their greatest social support. Restrictive measures to contain the epidemic have affected the social and societal relations of individuals. People were restricted to only having personal contacts with household members, which may have had a positive impact on family dynamics and the relationships between family members but may also have further exacerbated family relationships that were already problematic before the emergence of the pandemic.<sup>174</sup> Compared to previous years, the share

of respondents who met with relatives, friends or co-workers at least once a week decreased (43%), but their contacts were kept via telephone or through online technologies.<sup>175</sup> Maintaining social and societal relations during the epidemic is important in order to prevent social isolation and<sup>176</sup> a feeling of loneliness. The share of respondents who reported that they had no one to talk to when feeling depressed (10.6%) was lower than the EU average (13.3%) in April 2020 (Eurofound, 2020b).

<sup>172</sup> Altogether 62% of respondents communicated (with relatives, friends and acquaintances) more frequently via video calls in April than before, while 53% of respondents used direct communication applications (Aragon 2020).

<sup>173</sup> 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. The selected countries are those whose data are available at a given time (in this case Belgium, Germany, Finland, France, the United Kingdom, Ireland, the Netherlands, Poland, Hungary and Slovenia).

<sup>174</sup> 30% of respondents estimated that their family relations improved, while 56% did not notice significant changes in family dynamics and 7.6% reported more tensions between family members. 4.7% of respondents reported that they lived alone (Hafner-Fink et al., 2020).

<sup>175</sup> 80.4% of respondents had social contacts via phone or online at least once a week, and 66.7% of them had contacts with co-workers (Hafner-Fink et al., 2020).

<sup>176</sup> Social isolation refers to avoidance and lack of contacts with other people, including confinement to one's own world. Most often it involves a physical inability to make contact; it becomes a serious threat only when a person feels it as loneliness (Hvalič Touzery, 2020).

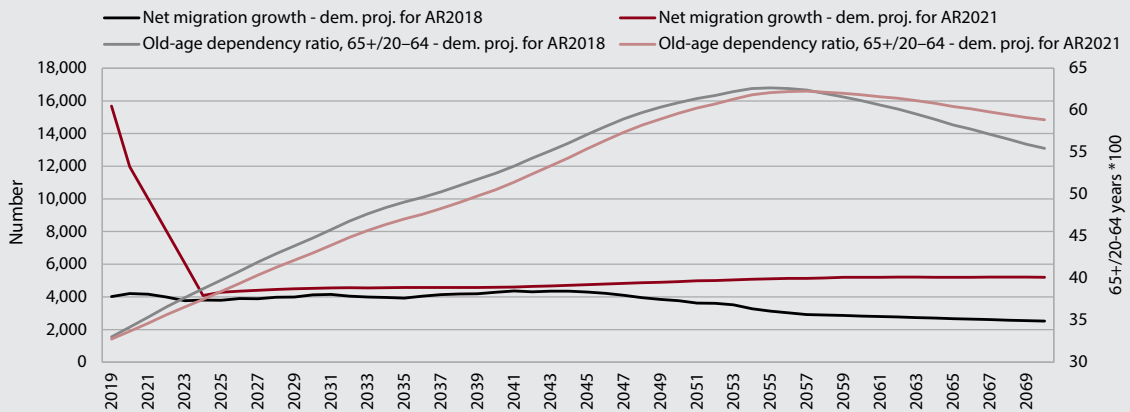


Box 6: Demographic trends and their impact on ageing-related public expenditure

**Expenditure on pensions, healthcare, long-term care and education accounts for a large share of public expenditure and is expected to increase as the population ages.** According to the latest figures for 2019, this expenditure relative to GDP remained at similar levels as ten years ago and lower than the EU average (20.7% of GDP compared to 24.0% of GDP in the EU). Under unchanged policies and systems, demographic trends are expected to continue, which may lead to difficulties in providing stable funding of social protection expenditure and to crowding out other expenditure. Therefore, systems in these areas, and indirectly in others, will have to adapt to demographic change. Due to the necessity of timely adjustment of ageing policies, the European Commission, in cooperation with Member States, has set up a three-year cycle of updating long-term projections of ageing-related expenditure, which are also used for setting a medium-term fiscal target.

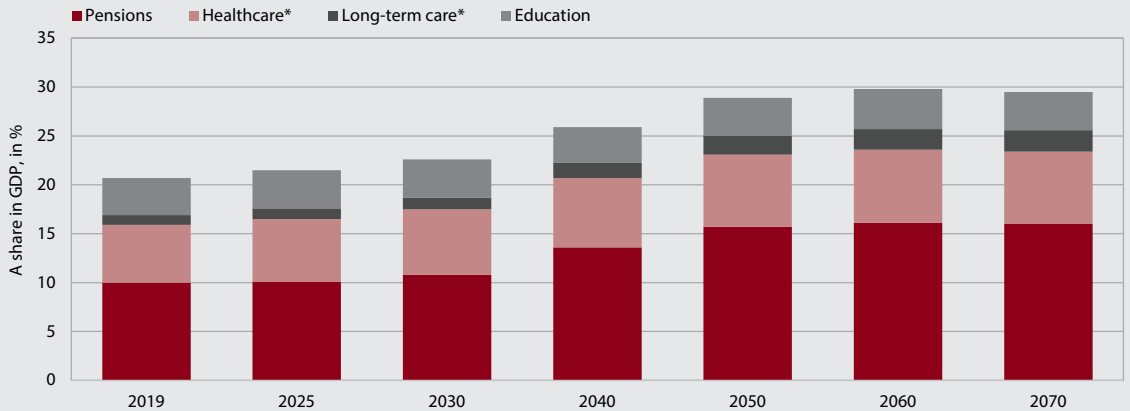
**New projections of ageing-related expenditure show that in the coming decades and under current policies, ageing-related expenditure in Slovenia is expected to increase from 20.7% of GDP in 2019 to 29.8% in 2070 (EC, 2021, in preparation)<sup>1</sup>.** Although developments in recent years have been more favourable than previous projections (EC, 2018) and the baseline level of new projections is lower than expected, the new projections suggest

Figure 35: Comparison of the results of demographic projections used in the 2021 and 2018 Ageing Reports



Source: Eurostat, 2021.

Figure 36: Long-term projections of public expenditure related to ageing, baseline scenario



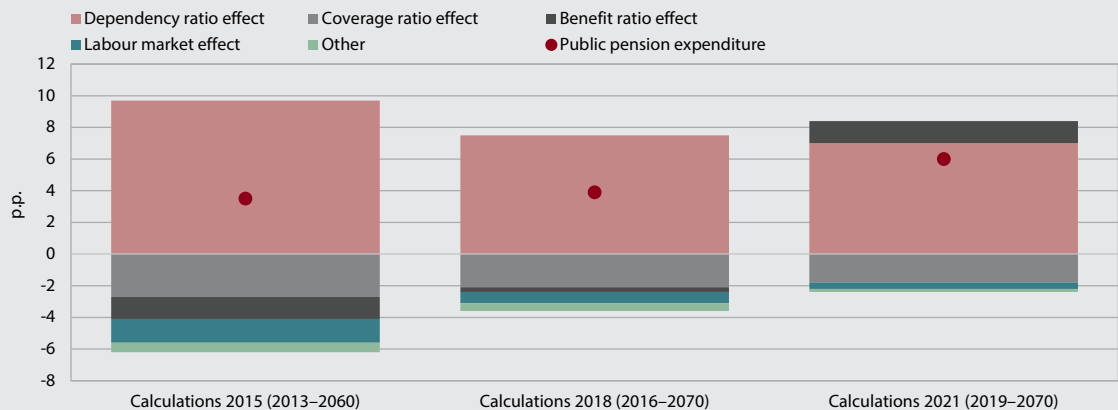
Source: EC, 2021, in preparation. Notes: \* Public expenditure on health is shown based on the methodology of the system of health accounts (SHA), but excluding expenditure on long-term care and including expenditure on investments under the COFOG methodology. \*\* Public expenditure on long-term care: health and social portions according to SHA methodology.

<sup>1</sup> The publication of the 2021 Ageing Report is scheduled for May, when international comparisons will also be possible. In the previous 2018 projections, Slovenia was among the EU Member States with the highest long-term increase in expenditure on ageing, deviating the most terms of the increase in pension expenditure.

that the long-term increase in these expenditures will be higher than in previous projections. New estimates of expenditure related to ageing took into account new demographic projections, which in the initial period exerted less pressure on the growth of pension expenditure, while at the end of the period the situation was quite the opposite (Figure 34). The projections also took into consideration the 2019 amendments to the pension legislation and the 2019–2020 measures adopted in healthcare and long-term care, which were not related to COVID-19 (e.g. salary increases and personal assistance expenditure). However, the significant increase in expenditure due to the COVID-19 epidemic has only a temporary effect on the healthcare and long-term care projections. Potentially higher growth in public expenditure on healthcare and long-term care, taking further account of various non-demographic factors (the risk scenario<sup>2</sup>), would result in an even greater pressure on the long-term sustainability of public finances. An additional 12 sensitivity scenarios have also been developed for pension projections, among which an increase in expenditure is most influenced by a fifth lower birth rate, while a reduction in expenditure is influenced by linking the retirement age to life expectancy (MF, 2020, in preparation).

**Pension expenditure projections underline the long-term unsustainability of current policies, and such an increase in expenditure would significantly change existing social relations.** Due to the recent amendments to the Pension Act, which otherwise had a significant impact on the decency of pensions and the material security of pensioners but did not include sustainability parameters (see more in IMAD 2021), long-term expenditure on pensions is higher than in the previous projections. While maintaining current policies, it is expected to increase by 6 percentage points to 16.0% of GDP by 2070 (to 14.9% based on the 2018 projections). According to the estimates prepared for the 2021 Ageing Report (MF, 2020, in preparation), the share of pensions relative to GDP is expected to grow towards the end of this decade: the pension expenditure-to-GDP ratio is projected to increase on average by 0.2 percentage point over the next 20 years (2019: 10.0%; 2030: 10.8%, 2040: 13.6%). Around 2050, the number of pensioners is expected to be almost equal to the number of employees, as by then all major generations born in the 1980s will be retired. Relatively late entry into the labour market and, compared to other countries, early retirement, which, despite a visible increase since the 2013 reform, is still reflected in one of the lowest employment rates of the 55–64 age group, make a significant contribution to the growth of pension expenditure. Slovenia is also one of the few EU Member States where the statutory retirement age will remain the same in the future as it is today. Pension systems are increasingly adapting to demographic factors both in the EU and globally, while individuals are given a greater responsibility to plan for financial security in old age (IMAD, 2019b: 46), which requires new systemic incentives in Slovenia (see e.g. MDDSZ, 2016, Section 4.5.1). In most countries, measures to cushion the impact of demographic change on pensions and to improve the sustainability of systems were focused on increasing the retirement age or adjusting it to life expectancy, tightening the eligibility conditions

Figure 37: Total change in pension expenditure relative to GDP, in percentage points



Source: MF, 2020, in preparation. Note: The dependency ratio effect: an impact of demographic change, the relative change in the number of older people versus the working age population. The coverage ratio effect: the share of pensioners of all ages to the population over 65 years. The benefit ratio effect: the development of the average pension relative to the average wage. The labour market effect: the effect of labour market behaviour on pension expenditure (employment rate, labour intensity, career prolongation).

<sup>2</sup> In addition to the effect 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.

for pensions and changing pension schemes (from defined benefit schemes to defined contribution schemes) and also highlighted the importance of the individualisation of pensions or complementary retirement savings (Spasova and Ward, 2019: 117; IMAD, 2019b: 45–48).

**Due to demographic and technological changes affecting the labour market, the problem of financing social protection systems can be expected to worsen in the future.** In Slovenia, social contributions of the working population are the predominant source of funding for social protection expenditure, but even today these dedicated resources are not sufficient to cover all expenditure, which is why other resources will be needed in the future. An additional burden on the systems are non-standard forms of employment, often with lower contributions to social protection systems. Therefore, in addition to measures to slow the long-term increase in ageing-related expenditure, measures will have to be taken to compensate for the loss of revenue from social contributions in order to ensure the financing of growing needs. Even now, the gap between dedicated public sources (contributions) and expenditure is most pronounced in pension expenditure, where the difference between revenue from social transfers and expenditure for pensions and other ZPIZ expenditure is covered by transfers from the state budget (for more, see IMAD, 2019a). In years characterised by a substantial shortfall of social security revenue (such as in 2020), it is necessary to significantly increase state budget contributions to healthcare, either directly or as a transfer from the budget to the HHS (see Box 5), to ensure the provision of healthcare services.

### 3.3 Inclusive labour market and quality jobs

#### 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 which create high value added (see also Development Goal 6). The introduction of the concept of sustainable working life and the adjustment of jobs to demographic change will help to increase the employment activity of older workers and improve their health. Improving the system of flexicurity and promoting the employment of both sexes in gender atypical professions will, moreover, contribute to the increased inclusion of under-represented groups on the labour market.

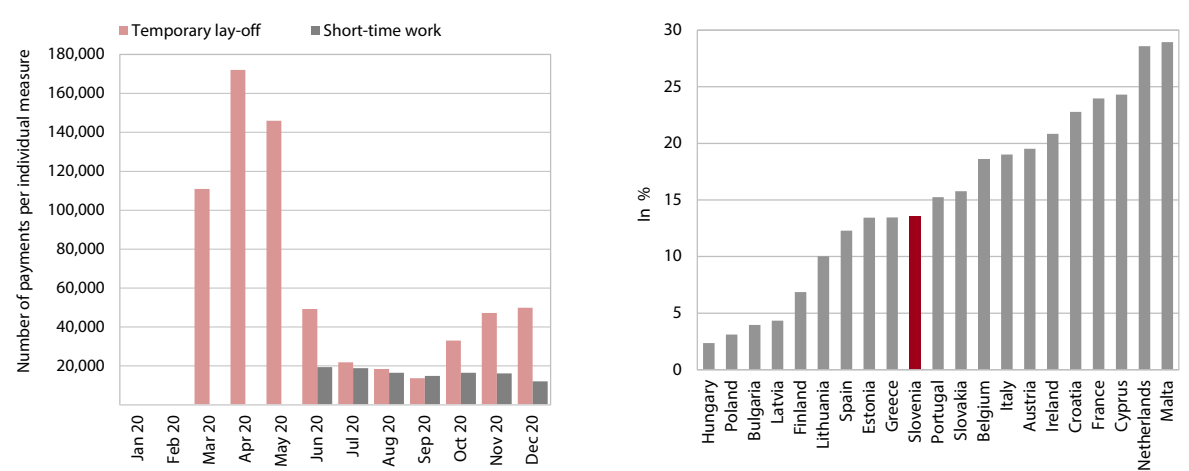
#### Performance indicators for Development Goal 7:

	Latest data		Target value for 2030
	Slovenia	EU	
Employment rate (20–64 years), %	78.4 (2019)	75.2 (2019)	> 75
At-risk-of-poverty rate of persons in employment, %	4.5 (2019)	9.0 (2018)	< 5

**The COVID-19 epidemic has halted favourable labour market developments observed in recent years.** The labour market was dominated by favourable trends from 2014 until the outbreak of the COVID-19 epidemic, with the employment rate rising to historically high levels and the unemployment rate approaching record lows. The high demand for labour, given its diminishing availability (demographic changes), also opened up employment opportunities for those groups of the population who have generally found it more difficult to enter employment. However, the outbreak of the COVID-19 epidemic and the introduction of measures to

contain it, which temporarily suspended the operation of certain activities, halted the favourable trends and significantly worsened them. Unemployment increased sharply in the second quarter of 2020, with businesses initially responding to the aggravated situation by not renewing or terminating fixed-term contracts. The measures to retain jobs (Box 1) considerably cushioned the impact of the economic downturn on the labour market. Nevertheless, employment decreased by 1%<sup>177</sup> on average in 2020 and the average number of persons registered as unemployed increased by 14.6%.

**Figure 38: The number of employees included in the measures of temporary lay-off and short-time work in Slovenia (left) and the share of employment supported by state measures in the second quarter of 2020 (right)**



Sources: Employment Service, 2021 (left); Eurostat, 2021 (right). Note: \* The number of employees included in the measure of temporary lay-off indicates the number of payments per month for each measure.

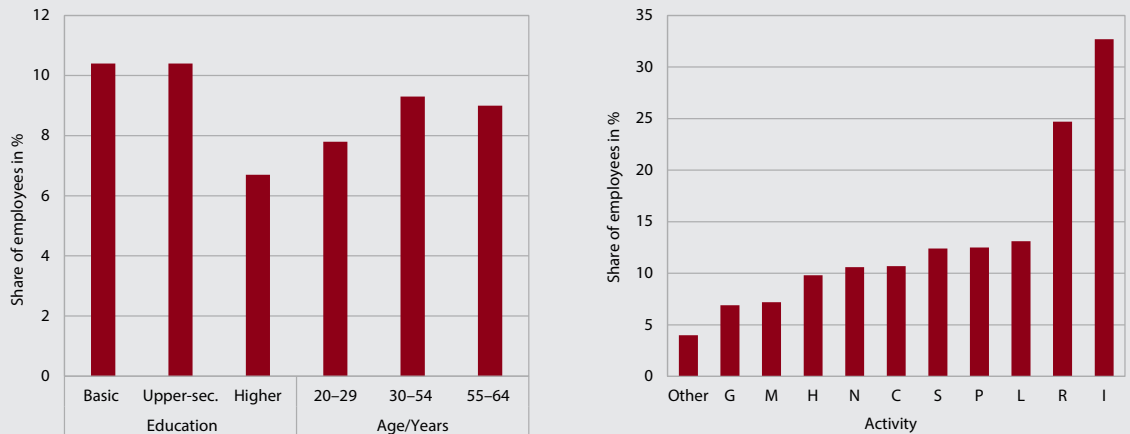
<sup>177</sup> Data according to the national accounts statistics.

**Box 7: Emergency measures of temporary lay-off and short-time work in Slovenia**

**During the first wave of the epidemic, Slovenia adopted the measures of salary compensation for temporary laid off employees and partial subsidisation of short-time work.** The temporary lay-off measure also provided employers with the right to partial reimbursement of salary compensation paid to workers who could not be provided with work due to the epidemic and were temporary laid off. The employees were entitled to 80% of salary compensation, with the state reimbursing employers a certain part of this amount (which changed with individual amendments to the measure from 40% up to 100%), but only to a certain level (either up to the amount of unemployment benefit – EUR 892 – or up to the average salary in 2019 – EUR 1,754). In mid-2020, the measure of partial subsidisation of short-time work was also put in place. The measure enabled employers to temporarily impose part-time work (to a maximum of half-time work), while for the rest of the time the worker was on temporary lay-off. In doing so, employers were entitled to a subsidy of up to EUR 448, depending on the length of the reduced working time.

**Due to the sectoral structure of activities that were shut down, the temporary lay-off measure predominantly included women and employees with low levels of educational attainment.** IMAD's analysis based on the survey data from the Active and Inactive Population Survey suggests that, on average, in the second quarter of 2020, about 190,000 persons in employment did not do their regular work for various reasons, of whom the majority were on temporary lay-off. The closure and suspension of certain activities (particularly accommodation and food service activities, arts, entertainment and recreational activities), as well as other service activities that are likely to include frequent face-to-face contacts with other people, resulted in women being more likely to be temporarily laid off, especially those with lower levels of educational attainment. However, employees involved in the activities where the nature of work allowed teleworking or where the frequency of contact with other people was reduced were relatively less included in the measure. Businesses adapted to new ways of working and organised teleworking, which has helped to prevent significant job losses in such activities (EC, 2020j).

**Figure 39: The share of persons in employment who are on temporary lay-off by demographic and job categories of all persons in employment by individual category, second quarter of 2020 (left), and the share of persons in employment on temporary lay-off by individual activity (right)**



Source: SURS, 2020; IMAD calculations based on individual data from the Active and Inactive Population Survey.  
Note: \* C – Manufacturing, G – Wholesale and retail trade, repair of motor vehicles and motorcycles, H – Transportation and storage, I – Accommodation and food service activities, L – Real estate activities, M – Professional, scientific and technical activities, N – Administrative and support service activities, P – Education, R – Arts, entertainment and recreation, S – Other service activities.

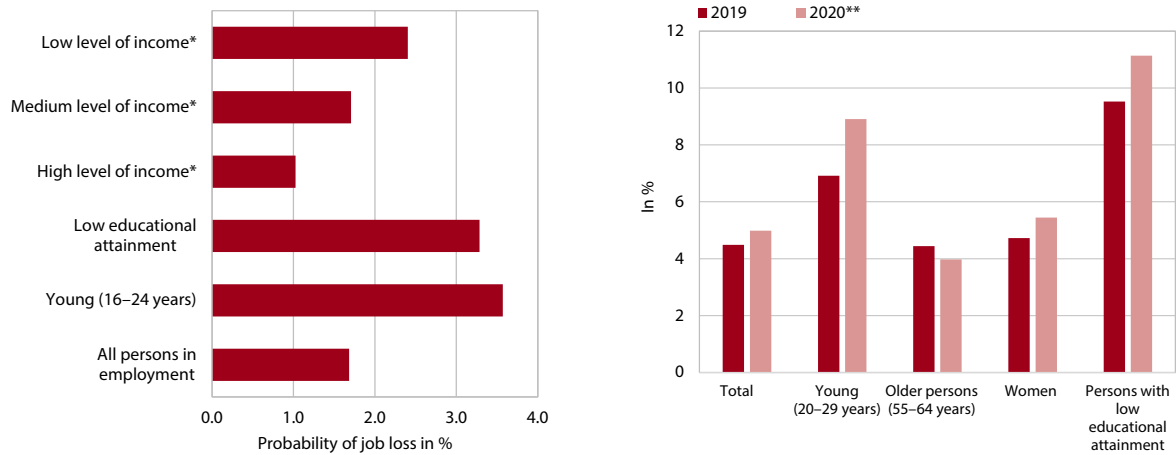
**In view of mitigating the economic impact of the epidemic on the labour market, measures were taken in 2020 to retain jobs.** In Slovenia, as in other EU Member States, the main job retention measures were to temporarily lay-off employees and reduce full-time work.<sup>178</sup> In addition, businesses in Slovenia were

exempted from paying pension insurance contributions for all employees who worked during the epidemic. The measures were aimed at reducing labour costs,

<sup>178</sup> A number of countries were already aware of the measures before

2020 (e.g. some of them introduced them as early as at the time of the global financial crisis in 2008 or even before and have had these measures in place since then), while some, including Slovenia, adopted them at the outbreak of the COVID-19 epidemic (OECD, 2020a).

**Figure 40: Probability of job loss by selected categories of persons in employment, Q2 2020 (left), and survey unemployment rate by selected categories (right)**



Source: Eurostat, 2020b (left); Eurostat, 2020a (right).  
Notes: \* Low-income earners are defined as persons in employment in the first three deciles, medium-income earners as those in the fourth to seventh deciles and high-income earners as those in the eight to tenth deciles. The value for the EU is the non-weighted average of the Member States included in the analysis. \*\* The year 2020 is calculated as the average of the first three quarters.

which often account for a significant part of businesses' expenditure, to increase the chances of retaining jobs and keeping employees until the economic activity could bounce back. With limited comparability of data on job retention measures, Eurostat data show that in the second quarter of 2020, Malta and the Netherlands had the largest share of jobs included in various support job retention measures (about 29% of total employment). With 13.6%, Slovenia ranked in the middle of the countries for which data are available (Figure 38 right). According to data on compensation payments for temporary lay-offs, reimbursed by the Employment Service, the majority of workers were included in the temporary lay-off measure in the second quarter of 2020 (Figure 38 left).

**After a long period of increased integration of vulnerable groups into the labour market, the crisis resulting from the outbreak of the pandemic hit hardest young people, persons with low levels of educational attainment and low-income workers.** It is characteristic of the aforementioned groups, as well as of other vulnerable groups of persons in the labour market, that they tend to have fewer opportunities for quality jobs and job security and are more often unemployed or inactive, which has a negative impact on their income security and quality of life. The situation of vulnerable groups has gradually improved in recent years in view of favourable economic conditions and overall labour shortages.<sup>179</sup> In view of the aggravated situation amid

the first wave of the pandemic, some businesses decided to downsize the number of employees by non-extension or termination of temporary employment contracts despite the rapid adoption of emergency measures to retain jobs. Although many employees from the vulnerable groups were also involved in the job retention measures, they nevertheless faced above-average job losses. The deterioration of the situation of vulnerable groups was also influenced by the fact that those in the labour market who were not in employment were not able to be included in the job retention measures and were more exposed to temporary employment than others. An analysis by Eurostat (2020b) shows that in the second quarter of 2020, young people in particular were the ones most at risk of losing their jobs, which was also because they held a high share of temporary contracts.<sup>180</sup> Employees with low levels of education and low incomes were also particularly affected.<sup>181</sup> The analysis also highlights that the sectoral structure of the affected economy was the main contributor to the exposure of those groups. The closure of activities particularly affected the accommodation and food sector, retail trade and other service activities, where many young people and people with low levels of educational attainment, as well as women, are employed in temporary jobs.

<sup>179</sup> The SURS data from the EU-SILC survey on the employment rate (in the age group 25–56) by income classes (quintiles) reveal that in 2019 the inclusion of persons in employment from all income classes, especially those with low incomes, continued. In 2013–2019, the employment rate of the first quintile (the 20% of persons with the lowest incomes) increased by 13.8 percentage points to 60.2%; it increased by 10.8 percentage points to 83.6% in the second quintile.

<sup>180</sup> Young people in Slovenia were particularly affected by the large reduction in the volume of student work, which is a very flexible form of work: in the first half of the year student work was cut by about half compared to the year before. It was precisely the reduction in the volume of student work that contributed to the fact that, in the second quarter of the year, the year-on-year decrease in the employment rate of young people in Slovenia was the most pronounced among all countries.  
<sup>181</sup> These groups often overlap, as young people, persons with low levels of educational attainment and persons employed in the accommodation and food sector are often also low-income earners.



**In 2020, the positive trend of decline in the long-term unemployment rate was also discontinued.<sup>182</sup>**

In 2014–2019, the employment prospects of the long-term unemployed gradually improved, which was also due to labour shortages and high economic growth. In such a situation, businesses often decided to employ people who had been unemployed for a longer period of time and who often had fewer relevant skills. With the fall in economic activity in 2020, the long-term unemployment rate was only slightly higher on a year-on-year basis in the second quarter of 2020, which was significantly influenced by the transitioning of long-term unemployed into inactivity. However, the transitioning of the long-term unemployed into inactivity reduces their opportunities for inclusion in active labour market policy programmes and thus also decreases their employment prospects. The long-term unemployed are often at risk of losing their skills and skill applicability due to long-term absence from the labour market, which can increase their stigma in the eyes of potential employers, further reduce their job prospects and have a lasting impact on future earnings. There is also an increased risk of health problems associated especially with depression and stress. Due to the sharp increase in the number of unemployed in 2020, in particular from activities in which workers with lower educational attainment are more often employed, there is a risk that long-term unemployment will also increase in the future. Therefore, along with job retention measures, additional measures and resources for reactivation and requalification of the unemployed are urgently needed in this area.<sup>183</sup> Therefore it would be reasonable that such an in-between-job period or reduced working time is used to further train employees and develop active labour market policy measures towards the necessary and desired transformation into a highly competitive, digital and green economy, which will require an appropriately qualified workforce (see Section 1.2).

**Labour market segmentation declined slightly over the last two years before the COVID-19 epidemic, with young people still most exposed to it.** The segmented labour market is characterised by a gap between workers in regular, protected, better-paid permanent employment and those in less protected, lower-quality forms of work with less chance of moving to a safer form of employment. The share of full-time employees and those with permanent employment contracts (i.e. standard employment) increased in 2014–2019 and stood at 71% in 2019.<sup>184</sup> Despite a slight increase in permanent employment resulting from an increased demand due to labour shortages, young people still remain highly exposed to temporary

employment. Student work, which is a very flexible form of work and represents an important financial source of livelihood for students, contributes significantly here. As the transition to the digital economy also increases the need for non-standard forms of employment, it is crucial to ensure that all forms of employment (including non-standard ones) are adequately included in social protection systems and all workers provided with access to social insurance rights.

**The quality of the workplace and the quality of the working environment in Slovenia were close to the EU average in 2015, but in comparison with 2005 they have deteriorated.** Although there is a comprehensive range of indicators that measure the individual dimensions of job quality, there are only few synthetic indicators that measure and rank countries according to the quality of employment (Kajzer, 2020a). According to the OECD measurements in 2013, Slovenia ranked in the group of average countries (OECD, 2016). According to the European Job Quality Index (EJQI),<sup>185</sup> it ranked slightly above the EU average in 2005 (Leschke and Watt, 2008) but by 2015 it had fallen behind it (Piasna, 2017). A large part of the EJQI calculation data is derived from the European Working Conditions Survey, conducted by Eurofound every five years, which is<sup>186</sup> why we cannot provide a comprehensive assessment of trends in the quality of employment since 2015. However, since 2015, some of the indicators that measure employment security in particular have moved towards showing an improving quality of employment.

**Adequate pay for work is an important element of the quality of employment, influencing the quality of life.** Growth in average and minimum wages in recent years has been relatively high. In 2019 and 2020, the minimum wage increased by more than 5% in nominal terms per year and all allowances were excluded from the minimum wage.<sup>187</sup> This improved the material situation of low-income earners with lower levels of educational attainment, which is also reflected in the reduction of the at-risk-of-poverty rate of the working population, which fell to 4.5% in 2019, thus achieving the SDS 2030 target (see Indicator 3.18). On the other hand, increasing the wages of the less educated

<sup>182</sup> Long-term unemployed persons who have been unemployed for one year or more.

<sup>183</sup> In recent years, Slovenia has allocated relatively little funding for active labour market policies; it would be sensible to increase this in the future.

<sup>184</sup> The share of standard forms of employment in 2019 was 4.5 percentage points higher than in 2017.

<sup>185</sup> The EJQI is a synthetic index (Leschke and Watt, 2008) which measures the following dimensions: (i) wages; (ii) non-standard forms of employment; (iii) working time and work-life balance; (iv) working conditions and job security, highlighting the individual's perception of work intensity, autonomy at work, physical conditions of work and job security; (v) skills and career development; and (vi) collective interest representation.

<sup>186</sup> The latest survey on working conditions was carried out in 2020, but the results are not yet available.

<sup>187</sup> There are 21 countries with a statutory minimum wage in the EU, but the arrangements for including wage supplements vary from country to country. In terms of economic development, Slovenia ranks in the group of countries with medium minimum wage rates, together with Malta, Portugal, Spain and Greece. In 2020, the minimum wage in Slovenia amounted to EUR 940; the lowest was in Bulgaria (EUR 312) and the highest in Luxembourg (EUR 2,142). Slovenia has the highest ratio of minimum wage to average wage in the EU.

leads to the narrowing of the pay gap, which may be demotivating for some groups.

**The quality of employment has an impact on health and opportunities to prolong working life.**

Demographic changes require longer working lives, which also means longer exposure to risks in the workplace. This also leads to a higher proportion of older workers and hence the increased presence of chronic health problems. Therefore, an integrated lifelong approach, i.e. better prevention that ensures healthy ageing and a sustainable working life for all, is important. The European Agency for Safety and Health at Work (EU-OSHA) also stressed the importance of risk assessment in the “Healthy Jobs for All Generations” campaign<sup>188</sup>, which takes into account the diversity of workers and provides the basis for adapting the workplace to the needs of the individual (EU-OSHA, 2016). The need for an integrated approach to life is also supported by data on the share of people who are severely limited in performing daily tasks, which in Slovenia in the 45–64 age group is higher than the EU average. In addition to relatively early retirement in recent years, this contributes to the low employment rate of older people, which in the 55–64 age group remains among the lowest in the EU in spite of an increase in recent years.

**The COVID-19 epidemic further highlighted the impact of quality of employment on health and the importance of occupational health and safety measures.**

In a survey on working conditions during the first wave of the epidemic, 44% of respondents in the EU perceived that they were at risk of infection due to work, with the largest proportion in healthcare (70%) and high levels also in trade and tourism (Eurofound, 2020a). As in other countries, employees in healthcare and homes for the elderly were among the most burdened and exposed to infection during the epidemic in Slovenia, but they had in any case already been overburdened due to staff shortage (Vršič, 2013). A review of studies on the impact of the epidemic on the health system for 42 countries shows that healthcare workers experienced a significant increase in anxiety, depression and insomnia problems during the epidemic (Muller et al., 2020). At the outbreak of the epidemic, employers were also confronted with additional demands for occupational health and safety measures, which, despite a significant lack of protective equipment, were assessed by the respondents quite positively.<sup>189</sup> During the epidemic, teleworking increased significantly, with some positive

effects for individuals in terms of time and environment (reduced commuting). However, Petrišič (2020) points out that an increased workload from telework at the time of the epidemic could increase some of the risks of musculoskeletal disorders arising from poor workplace ergonomics and too intensive or frequent use of modern information technologies, thus posing new challenges for occupational health and safety.<sup>190</sup> Although most businesses in the ECB survey highlighted digitisation and teleworking in euro area countries when asked about the long-term impact of the epidemic, 12% of businesses also drew attention to safety at work and the need to improve it (Maquai and Morris, 2020).

<sup>188</sup> The campaign took place in all Member States in 2016–2017 and sought to raise awareness and understanding of the importance of ensuring occupational health and safety for all generations, as well as occupational health and safety management, taking into account the ageing of the workforce.

<sup>189</sup> The vast majority of EU respondents during the first wave of the epidemic were aware of the importance of using protective equipment in the Working Conditions Survey, with an EU average of 70% of respondents saying that employers provided adequate protective equipment. In Slovenia, the share was higher than the EU average (Eurofound, 2020a).

<sup>190</sup> For example, increased psychosocial risks that may be associated with (i) poor work organisation, (ii) lack of appropriate work instructions, and (iii) neglect of the right to disconnect outside working hours and to breaks during working hours.

## 4

# A preserved and healthy natural environment

The economic recovery and development in the post-COVID-19 era will urgently need to be linked to a faster transition to the agreed low-carbon circular economy, thus achieving the environmental objectives of the SDS, while making good use of all available financial incentives. Greater concern for a cleaner natural environment will increase economic activity with new green jobs, while reducing community vulnerability and improving resilience. Circular economy models significantly reduce the use of natural resources and energy, as well as the resulting waste volumes, and hence GHG emissions. Changes in the economy are also necessary because of the scarcity of natural resources, their expected higher prices and the associated rising production costs. Most indicators measuring the exploitation and sustainable management of natural resources in Slovenia point to an improvement over a longer period of time which, however, is relatively modest and in the future will not be sufficient to achieve the objectives of the green transition unless some systematic measures are taken. The productivity of natural resources and GHG emissions, expressed as the ratio of GDP to resource use/emissions, continued to increase in the period of economic growth, but the growth rate so far has been slow compared to the EU average. Faster improvement was mainly held back by the increasing use of energy in transport, which has a significant negative impact on the environment and is also unsustainably oriented. The total use of renewable energy sources is relatively high, but it has been stagnating for many years, which calls for faster systematic solutions. The need to reduce the environmentally harmful use of fossil fuels as an energy source necessitates the development of policies and technological solutions that will increase competitiveness and at the same time slow down climate change. Due to its large share of protected areas, high forest cover and moderate intensity of farming, the natural environment in Slovenia is, on average, relatively well preserved. Two issues in particular where progress has been moderate have been raised over the last few years, namely air quality associated with the relatively high content of dust particles and the use of space associated with less exploited or abandoned functionally degraded areas.

## 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, which is associated with a significant 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. Changes in this direction will be supported with education and integration, the promotion of environmental innovations and, most notably, the phasing out of fossil fuels. The SDS 2030 also highlights the need to change transportation by accelerating the development of sustainable mobility.

#### Performance indicators for Development Goal 8:

	Latest data		Target value for 2030
	Slovenia	EU average	
Resource productivity, PPS/kg	2.1 (2019)	2.2 (2019)	3.5
Share of RES in final energy consumption, %	22.0 (2019)	19.7 (2019)	27.0
Emission productivity, PPS/M kg CO <sub>2</sub>	3.1 (2019)	3.6 (2019)	EU average in 2030

**The exploitation of key natural resources and GHG emissions, which had declined during the global financial crisis, increased again during the economic upturn, though with some progress made in 2019; along with faster GDP growth, environmental efficiency also improved despite a notable increase in waste.** The environmental dimension of economic development is typically analysed using indicators that show the ratio between economic growth and emissions, the use of materials, energy and water, and the resulting GHG emissions. The use of resources and, consequently, GHG emissions largely levelled off following an increase in the first years of economic upturn, with some improvements observed in 2019. In the observed period, resource productivity and GHG emissions continued to improve in growth years along with higher GDP growth. This was also achieved by closing one of the major thermal power plants, technological upgrades, reduced demand for heating in mild winters and, in recent years, the slowdown in the growth of energy consumption from transport, which is at a high level after years of rapid growth. Over the past few years, with the revival of construction activities, there has been a significant increase in the generation of mineral waste, which due to its mass represents the majority of the waste generated<sup>191</sup>, which points to unexploited potential for resource circulation and more efficient management.

**Greenhouse gas (GHG) emissions levelled off by 2019 following a downturn in the global financial crisis and slight growth thereafter; with faster economic growth, emission productivity has improved, but**

**such a pace of change will not be sufficient to meet the climate and SDS targets.** In 2019, GHG emissions, which are one of the basic indicators of climate policy performance, decreased slightly for the second consecutive year, but they remained higher than in 2014, when they were<sup>192</sup> at their lowest level following the global financial crisis and energy use changes. In the same year, the reduction was achieved as a result of lower emissions in both economic areas that produce the most emissions – energy and transport. The emissions from transport increased significantly until 2016 and then slowed down at a relatively high level. Particularly problematic is the use of fossil fuels, which had in previous years been promoted with higher subsidies. The EU 2020 Strategy target that emissions in sectors not included in the Emissions Trading Scheme<sup>193</sup> should not increase by more than 4% in Slovenia compared to 2005 has been exceeded for several years. This was easier to achieve during lower-than-expected economic activity at the time of planning. In order to achieve the more demanding target of reducing emissions by 15% by 2030 (Decision No 406/2009/EC, EU Regulation 2018/842) or by 20% (MZI, 2020), more radical systemic changes towards sustainable development will be crucial in the transport and energy sectors (Kovač, 2020).<sup>194</sup> *Emission productivity,*

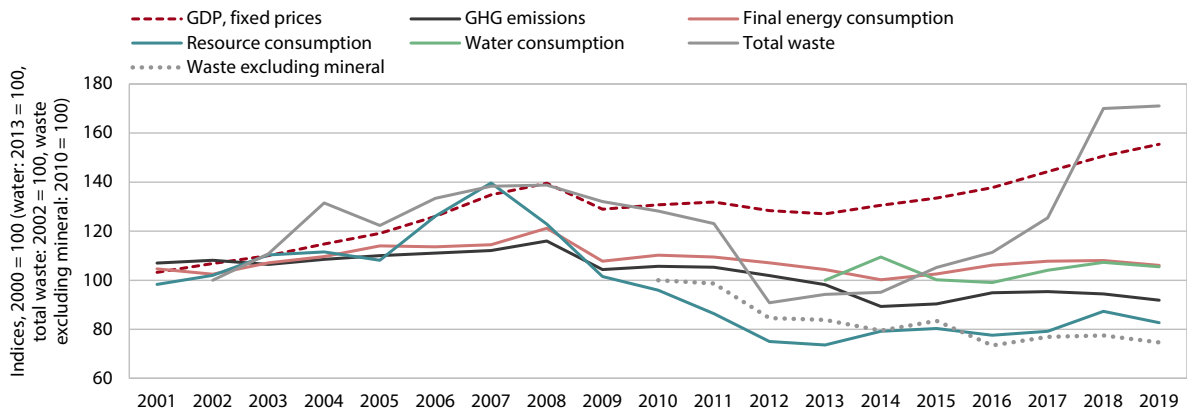
<sup>191</sup> Mineral waste includes construction and demolition waste, excavations, soils, and other waste of various natural and man-made minerals (Commission Regulation, 2010).

<sup>192</sup> Reductions in emissions were linked to the thermal power plants: one of the larger ones was shut down, while the other was technologically upgraded.

<sup>193</sup> The Emissions Trading Scheme, i.e. the EU ETS sectors, covers emissions mainly from power and industrial plants. These companies receive or purchase emissions rights that they can trade with other companies. By attributing monetary value to carbon, businesses are encouraged to find the most cost-effective solutions to reduce emissions and invest in clean low-carbon technologies.

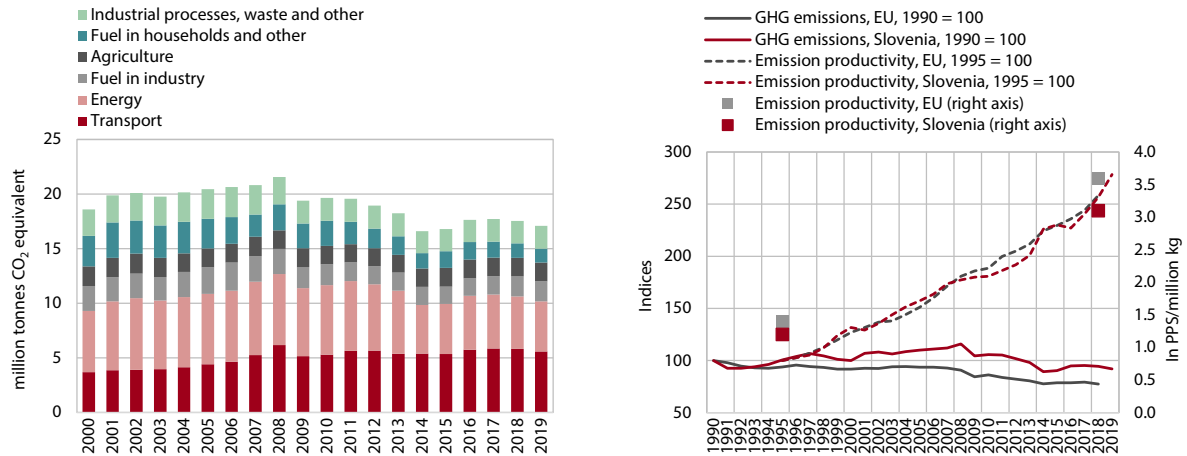
<sup>194</sup> National targets refer to GHG emissions from sources not covered by the European Trading Scheme, but total emission reduction targets at national levels have not been set. This target is defined only at the EU

Figure 41: GDP growth in relation to GHG emissions, growth in use of energy, resources and water, and waste generated



Source: SURS, 2021; calculations by IMAD. Note: the resulting wastes – excluding mineral resources – also include residual waste generated through incineration and treatment processes; Eurostat methodology.

Figure 42: GHG emissions by sector, Slovenia (left) and emission productivity (right)



Sources: ARSO, 2021a, and Eurostat, 2021; calculations by IMAD. Notes: ARSO's first estimate for 2019; calculations by IMAD. A meaningful comparison in PPS with countries can only be made for individual years and not for a longer time period.

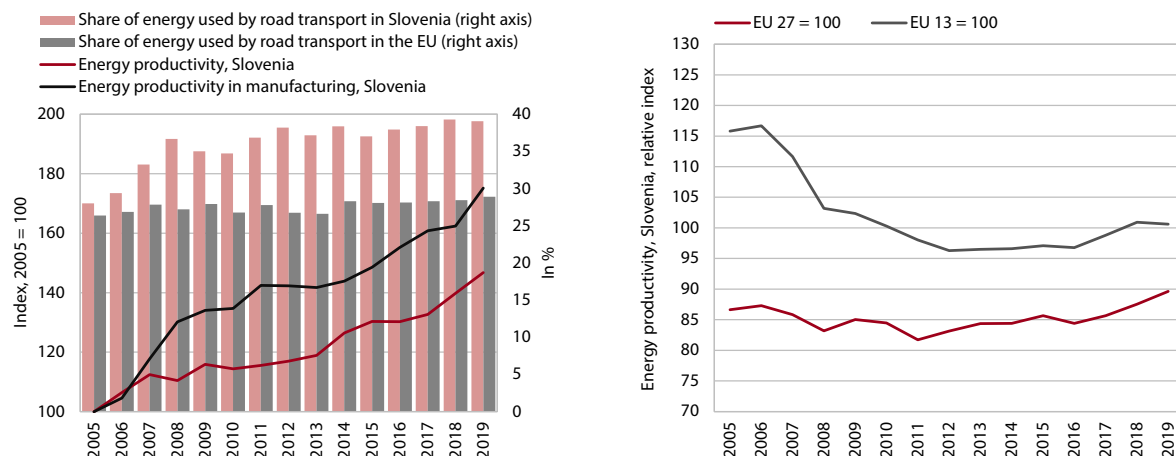
measured as the ratio of GDP to total GHG emissions, further improved but still lags behind the EU average (see Indicator 4.1). The gap with the EU widened during the crisis, but in subsequent years it initially narrowed to around 12% in the energy sector; however, no further progress has been made in the coming years. In order to achieve the SDS target of emission productivity, which is to reach the level of the EU average, in particular in the context of faster economic growth, the cross-cutting link between measures to support the development of the economy and measures to reduce emissions will need to be strengthened, while the transition to these systemic solutions can be accelerated by effectively benefiting from the incentives for a post-pandemic green recovery.

**Energy consumption, which has, as expected, decreased during the COVID-19 epidemic, will also need to be reduced at a faster pace over the next decade to meet the environmental objectives.** In 2005–2019, primary and final energy consumption in Slovenia decreased as in the EU (by about 10% and 5% respectively), so that in our estimation the 2020 *energy efficiency* target was reached or exceeded, taking into consideration additional reductions in consumption during the COVID-19 crisis. Primary energy consumption is estimated to be down by approximately 15% this year, which is more favourable than the target (see Indicator 4.2). The objective was set ambitiously in the period of economic growth on the assumption of continued GDP growth, but it became much easier to achieve it under the influence of the COVID-19 crisis and the previous global financial crisis. The use of energy for heating has decreased in the long term due to more prudent use, better insulation of buildings, improved efficiency of heating installations and other efficiency measures

level: emissions in the EU economy as a whole should be cut by at least 55% by 2030 compared to 1990 (EC, 2020g). More detailed legislative proposals are still in the pipeline.



**Figure 43: Energy productivity and share of final energy consumption in road transport (left) and energy productivity of Slovenia (right)**



Source: Eurostat, 2021; calculations by IMAD.

as well as in years of relatively warm winters with less heating. The consumption of solid fuels decreased in 2014 as a result of the closure of a brown coal-fired thermal power plant and the upgrading of a lignite-fired thermal power plant. Regarding liquid fuels, the consumption of petrol and fuel oil had been declining for a while,<sup>195</sup> while the consumption of diesel fuel decreased significantly in 2020 due to traffic restrictions imposed during the epidemic. *Energy productivity*, measured by the ratio of GDP to total energy consumption, has only improved in recent years due to relatively lower GDP growth just after the financial crisis. The reduction in energy consumption would be much broader if energy consumption in road transport, which had remained high in the following years, had not increased significantly due to our transit position in the enlarged EU. In some years, this was further stimulated by the lower price of motor fuels compared to neighbouring countries. Slovenia's lag behind the EU in energy productivity narrowed again in 2019, to around one tenth; in 2020, energy productivity declined both in Slovenia and the EU, with the drop in GDP expected to be greater than the drop in energy consumption.

**Taking into account its most modest increase since 2005 among all EU Member States, the share of renewable energy sources (RES) will lag behind the EU average and the targets within a few years unless radical changes are made.** The overall share of RES peaked in 2013–2015, when it exceeded 22%; it then decreased by one percentage point and remained at approximately the same level until 2019 (see Indicator 4.3). For the EU as a whole, the share increased in all observed years and rose to close to 20% in 2019. In Slovenia, *the use of traditional RES*, i.e. wood and hydropower, strongly predominates. Slovenia ranks at the tail end of the EU

by use of *other RES*, with the gap in wind energy being particularly wide. Wind energy is hardly exploited at all in Slovenia, whereas in the EU it already accounts for 15% of total RES consumption and even exceeds the use of hydropower. The increased consumption of solar and geothermal energy<sup>196</sup> has been the main contributor to RES growth since 2009 (their shares accounted for 3.3% and 1.3% of RES respectively in 2019). In the last 15 years, the share of RES *in electricity consumption* has increased by 3 percentage points in Slovenia and by 18 percentage points in the EU, meaning that it is now at a lower level in Slovenia (at 32.6 %, 1.6 percentage points lower than in the EU overall). *In heating*, the share of RES in Slovenia is increasing at a slower pace,<sup>197</sup> but it has remained relatively high due to the extensive use of wood. This can also be problematic in terms of poor air quality in case of inappropriate heating. In 2019, a slight rise in the share of RES use was mainly driven by the increased use of RES in transport, where the gap with the EU had previously been extremely wide.<sup>198</sup> An acceleration in green energy investments will be necessary to increase the use of RES towards reaching the SDS targets.<sup>199</sup> In order to replace fossil fuels and increase the use of RES, common solutions when siting individual energy projects should be sought more intensively to better exploit our favourable natural conditions, such as high forest cover and water and wind abundance.<sup>200</sup>

<sup>196</sup> This year, the share of RES use has increased the most as a result of the crisis and a decline in energy consumption, while the use of RES has decreased less.

<sup>197</sup> The use of RES for electric heating is included in electricity generated from RES and not in heating from RES.

<sup>198</sup> In 2019, the share of biofuels in transport increased from 5.5% to 8.0% (8.9% in the EU); the 2020 EU target for all Member States was 10%.

<sup>199</sup> Slovenian energy companies have set aside at least EUR 4 billion for green energy investments in 2021–2027. Most of the projects are being developed for renewable energy sources, which also include the reduction of GHG emissions, introduction of low-carbon technologies, smart grids, electric mobility and energy efficiency (Energy Industry Chamber of Slovenia, 2021).

<sup>200</sup> Environmental issues are mainly related to the further increase in the

<sup>195</sup> The reduced consumption of fuel oil for space heating is partly compensated by the use of wood and wood briquettes.



### Box 8: The impact of the COVID-19 pandemic on the environment and green recovery plans

**The short-term effects of the pandemic on the environment, both positive and negative, have been significant.** Many of these consequences are likely to be temporary, while some may endure in the form of longer-term structural or behavioural changes. Major global impacts include (i) *lower CO<sub>2</sub> emissions*, which are expected to decline by 8% in 2020 to levels of decades ago. The reduction is expected to be short-lived, with no longer-term impact; (ii) *lower level of air pollution*: by heavily curtailing industrial activities and traffic movement, air quality temporarily improved, although there was a subsequent rapid return to rising levels of air pollution. It has been suggested that there is a link between air pollution and mortality from COVID-19, with socially disadvantaged groups being more exposed and vulnerable to air pollution; (iii) *improved water quality*: the reduction in economic activity has also led to an improvement in water quality, although this will also be a temporary phenomenon, as water pollution is expected to increase once economic activity resumes; (iv) *higher generation of certain wastes*: the quantities of medical waste, personal protective equipment and single-use plastics have increased. Waste management challenges have thus increased significantly (OECD, 2021a).

**Measures to address the longer-term challenges of sustainable restructuring will need to be fully integrated into economic recovery measures as soon as possible.** Economic stimulus packages and recovery plans have the potential to create a recovery that is both green and inclusive, which requires a link between creating opportunities for income, jobs and growth and accelerating the achievement of medium- and long-term environmental goals. The recovery from the pandemic is a great opportunity for this. The measures should not be aimed at restoring the previous situation, but should support more radical shifts towards new, green innovations and investments. This would accelerate the green transition and mitigate climate change and strengthen resilience to it. Care for a cleaner environment, effective waste management and enhanced biodiversity protection not only will reduce the vulnerability of the communities to health crises, but at the same time have the potential to boost economic activity, generate income, create new jobs and reduce inequalities (OECD, 2021a).

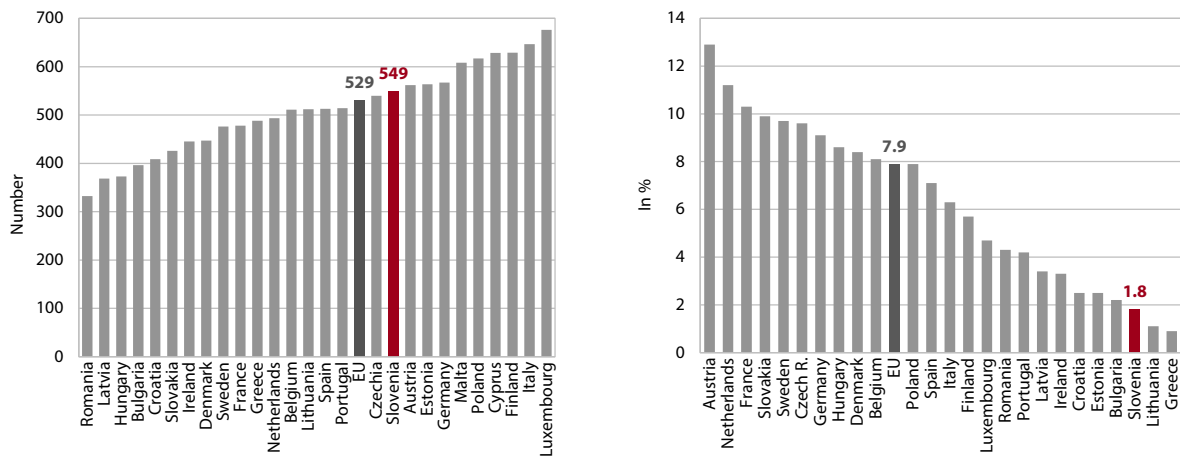
**Coordinated green action of all policies will be crucial for a successful green recovery from the COVID-19 crisis.** A green recovery may be more difficult to achieve because (i) young and smaller businesses, where major changes and innovations would be easier to apply, have been more affected by the crisis and therefore find it more difficult to invest in new business models; (ii) larger and older businesses, which tend to pollute the environment more, were less motivated to make changes as they were less affected; and (iii) the COVID-19 crisis was accompanied by a sharp drop in fossil fuel prices, which reduces the motivation of businesses to invest in cleaner technologies and achieve greater energy efficiency (OECD, 2021b). Clear policy orientations on green taxation and incentives to accelerate public and private investment for transition to a low-carbon circular economy will be crucial. It will be also essential to ensure the coordinated action of various policies at a cross-sectoral level.

**The investments in the green recovery, which are at the heart of European policy efforts, have been offered large-scale financial support, which opens up a great window of opportunity to speed up the sustainable transition.** Economic recovery and strengthening the resilience to future crises based on green and digital transformation will be backed up in the EU through the funds of the *Recovery and Resilience Facility*. The funds allocated to Slovenia amounted to EUR 5.2 billion (of which 3.6 billion in loans); in line with the European Commission's orientations, 37% of available funding should be channelled into the measures supporting sustainable and green transition. The investment incentives that will be highlighted within the Slovenian Recovery and Resilience Plan will be crucial for green recovery and the acceleration of planned systemic changes. The competent ministries are expected to publish the first calls in this area in the second half of 2021. Measures for sustainable development will also be supported by the European cohesion policy funds (SVRK, 2021; CER, 2021).

**Transport, which has an increasing impact on the environment as economic activity increases, has temporarily decreased with restrictions imposed during the COVID-19 crisis, but more radical and sustainable solutions are needed.** Much like elsewhere in the EU, most goods in Slovenia are transported by lorry and most passengers travel by car, neither of which is particularly environmentally friendly. Moreover, due to Slovenia's transit position, *total freight*

*transport* is high and has even increased in recent years (slightly less in 2018). Per unit of GDP, it increased by 18% in 2010–2018, which is by far the most compared to other EU Member States (it decreased by 3% in the EU average). In per capita terms, much more goods are transported than in the EU overall. Road transport is by one-fifth higher, while at the same time Slovenia has a favourably much higher share of rail freight transport compared to the EU (see Indicator 4.4), which is a more energy-efficient solution also resulting in lower GHG

**Figure 44: Number of cars per thousand population (left) and share of rail in total passenger transport, passenger kilometres (right), 2018**



Source: Eurostat, 2020; calculations by IMAD. Notes: (i) Graph to the left: Greece 2017; (ii) Graph to the right: the indicator refers to travel within the country.

emissions.<sup>201</sup> In passenger transport, the use of railway and other means of public transport is also very low by international comparison, while the share of the use of passenger cars is high. This is partly due to a lower degree of urbanisation and greater settlement dispersion and in particular and increasingly due to an outdated and modest public passenger transport service. Its increased diversification, frequency and harmonisation and the adjustment of timetables, along with passenger- and environment-friendly rolling stock, would contribute to a more comprehensive development of sustainable mobility. In 2020, public passenger transport, as well as car transport, was rather restricted amid efforts to contain the COVID-19 epidemic; but as a result, the share of public passenger transport in total transport is likely to have further decreased. Long-term systemic shifts will need to be accelerated, not least in view of the problems associated with increasing GHG emissions from this activity.<sup>202</sup>

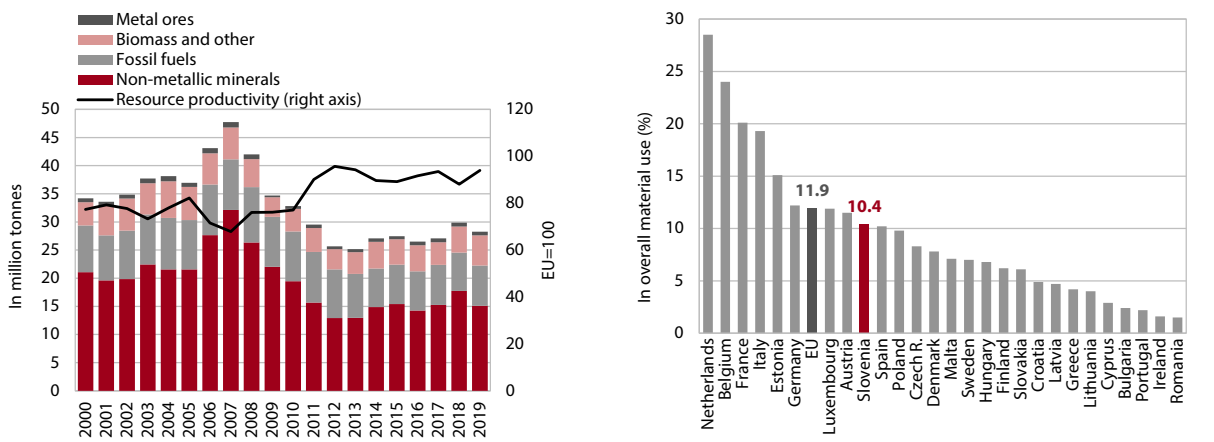
<sup>201</sup> The increase in rail transport is rather limited by the existing railway infrastructure, while its upgrading and renovation are significantly too slow (JSI, 2020). After several years of preparatory works, the construction of the second railway track between Divača and Koper is set to begin. The track is expected to increase the goods transport capacity.

<sup>202</sup> At the end of 2020, the European Commission presented a new European transport strategy addressing key areas for the future development of transport and transport infrastructure. To this end, three general objectives have been set: (i) *sustainable mobility – the transition to zero-emission mobility*, aiming to reduce GHG emission from transport by a) implementing measures to increase the shares of sustainable mobility and logistics in all modes of transport, b) facilitating overall availability and accessibility, and c) putting in place effective incentives to move towards new mobility; (ii) *smart mobility – achieving seamless, safe and efficient connectivity*, where digitisation and automation should help exploit new technologies to provide multimodal solutions for sustainable mobility, which should also have a beneficial impact on transport times, transport costs, and reliability and safety in transport; and (iii) *more resilient mobility – a more resilient single European transport area*, which should help the transport sector bounce back after the COVID-19 crisis, improve and become more environmentally friendly, smarter and more resilient to future crises (EC, 2020a).

**Resource productivity, one of the basic indicators of a sustainable economy, improved during the global financial crisis due to lower resource consumption but has been stagnated in recent years.** In Slovenia, the developments in resource productivity, calculated as the ratio of GDP to raw materials and materials consumed, are strongly driven by construction activities and the related consumption of non-metallic minerals. In the structure of resource consumption, the share of construction materials is among the highest in the EU. After resource productivity had increased at a faster pace than the EU average in 2007–2012, which was associated with lower construction activity, and had remained at about the same level over the next few years, it increased again in 2019 due to a sharp decline in the consumption of sand and gravel. The gap behind the EU average fell from 12% to 6%, meaning that with the same amount of resource consumed 6% less GDP was generated than the EU average (see Indicator 4.5). In 2020, measures to contain the epidemic also limited construction activity, but not to a significant extent. We can expect that further increase in the resource productivity of Slovenia's economy will be more difficult to achieve when construction activity is revived. The implementation of major construction projects, such as the planned construction of railway infrastructure and the road links of the third development axis, will slow the growth of resource productivity, and more attention will need to be devoted to the planned recycling measures in order to achieve the set goals.

**The inclusion of recycled materials in re-use is relatively low in Slovenia, necessitating more efficient and sustainable use.** With the overexploitation of natural resources, economic growth has a negative impact on the environment, while at the same time reducing the world's limited stocks of raw materials, increasing their prices and thus production costs. The rate of integration of recycled materials in the work processes

**Figure 45: Domestic material consumption<sup>1</sup> and relative resource productivity, Slovenia (left) and circular material use<sup>2</sup>, 2019 (right)**



Sources: SURS, 2021, and Eurostat, 2021; calculations by IMAD. Notes: <sup>1</sup> Domestic material consumption is defined as the exploitation of indigenous resources increased by net imports of resources. <sup>2</sup> The ratio between the recovered amount of waste used and the total amount of resources used and waste.

of economic activities, which is calculated as the ratio between the recycled amount of waste materials and the total amount of consumed materials, has increased faster in Slovenia in the last decade than the EU average, but it remains lower (by 1.5 percentage points in 2019). The success of the transition to a green and digital economy will depend heavily on the reliable supply of raw materials that are most important for the economy, with their supply at high risk of being disrupted. The COVID-19 crisis has shown that disruptions in supply can escalate quickly and that economies are very vulnerable in this regard (EC, 2020b).<sup>203</sup> As prices of limited primary raw materials found in nature will increase, achieving higher productivity will require increased processing and decoupling economic growth from the use of primary resources (OECD, 2019a, and International Resource Panel, 2019). In order to ensure steady supply and greater resilience to the availability of limited natural resources, more attention will have to be devoted to the circular and efficient use of resources, product sustainability, and green research and innovation, while diversifying the supply with primary and secondary resources, strengthening supply chains, and reducing dependence on imports (IMAD, 2020b)

**During the COVID-19 crisis, waste generation may be temporarily slowed down due to lower economic activity, but in the recovery period, the transition to a circular economy must be accelerated and waste must also be significantly reduced in a systematic way. The amount of waste generated increased by 88% between 2012 and 2019, which was due to an increase in construction and mineral waste from the activities; the quantity of municipal waste generated by households**

also increased (see Indicator 4. 6). As GDP grew faster, the amount of waste generated per unit of GDP decreased, but it was still around a tenth above the EU average. This was due to differences in the structure of the economy and past under-investment and too little innovation towards achieving cleaner technologies (OECD, 2019b). During the epidemic, the generation of waste from activities may have decreased due to lower activity, while some other wastes related to, for example, the increased use of protective materials and single-use packaging may have increased.<sup>204</sup> In this respect, a major shift in production towards a circular system, i.e. reduced use of primary materials and increased use of recyclable materials, will be crucial.<sup>205</sup> *Waste management* has improved considerably in recent years, partly due to several new or upgraded regional waste centres.<sup>206</sup> This has reduced disposal, which is the least desirable from an environmental point of view, but has increased recovery and recycling, which is a move towards more sustainable behaviour. With greater efforts to optimise the use of materials at source, processing will also be increased in the future, but it will be of essential importance to search for comprehensive solutions, including decisions regarding the heat treatment of residues. Waste that cannot be recycled can, if properly managed, become a valuable source of energy.

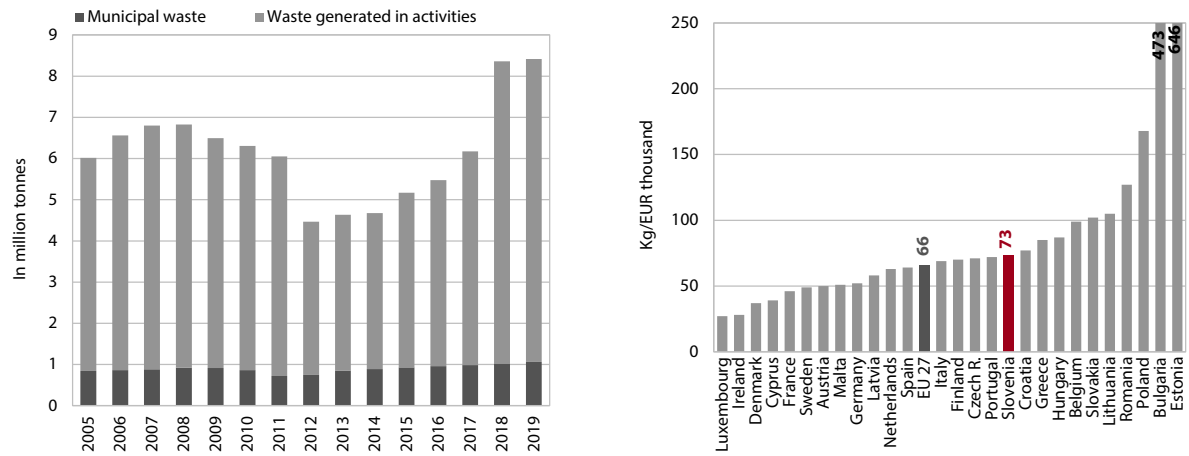
<sup>203</sup> The EU 2020 list of critical raw materials includes 30 materials. The list grows longer every year; in 2020, for example, it included lithium, which is essential to the transition to e-mobility. These raw materials are highly concentrated only in individual areas of the world, e.g. in China, Turkey and South Africa.

<sup>204</sup> The problems with packaging waste are also very pressing. In 2019 alone, about 300 thousand tonnes of packaging waste were generated: about six-tenths in manufacturing and service activities and four-tenths in households. About half of the packaging waste from manufacturing and service activities was paper and cardboard, about three-tenths was plastic and mixed materials, and the rest was from wood and other types of material.

<sup>205</sup> In 2020, in its efforts to introduce a circular economy, the Ministry of the Environment and Spatial Planning amended the Decree on waste, which provides for the processing of waste and sludge into new construction materials. A new Decree for the granting of a concession for waste-to-energy was also under public discussion.

<sup>206</sup> In the previous programming period, it was one of the environmental cohesion projects.

**Figure 46: Waste generated, Slovenia (left) and waste generated, excluding minerals, per GDP unit, 2018 (right)**



Sources: SURS, 2021, and Eurostat, 2021. Note: The drop in waste generated in 2012 in Slovenia was the result of (i) a reduction in construction waste and (iii) a revised methodology: some waste categories have been reclassified as by-products.

**A faster transition to a low-carbon circular economy will require significant public and private financial resources, and it will be important to make optimal use of all available EU funds.** In order to deliver the European Green Deal (EC, 2019a), the EU has developed an investment plan (EC, 2020d). In addition to the EU budget, the European Investment Bank will play a key role in financing the transition; by aligning its activities with the objectives of the Paris Climate Agreement, the EIB has also become the EU Climate Bank. Significant additional resources for the transition to a low-carbon circular economy are also provided through the “NextGenerationEU” agreement (EC, 2020e), a financial package designed to support recovery from the COVID-19 epidemic and the structural transformation of economies. It stipulates that at least 37% of available funds should be allocated to sustainable and green transition measures. The specification of the measures is being prepared under the National Recovery and Resilience Plan. In channelling funding sources, the taxonomy or the unification of definitions of activities that contribute to a sustainable and green transition is becoming increasingly important.<sup>207</sup> Given the ambitious plan to reduce GHG emissions by 55% at the EU level by 2030 (EC, 2020g), which is expected to be followed by more detailed legislative proposals in 2021, it is important that Slovenia also adopts and starts implementing a long-term decarbonisation strategy as soon as possible. The draft Long-Term Climate Strategy of Slovenia until 2050 (MOP, 2020), which does not yet include new commitments at EU level by 2030, shows

that the existing environmental goals will not be achieved with existing measures alone;<sup>208</sup> therefore it will be crucial to make the most of all available public resources and to also involve private sources of funding for these purposes.

**In addition to new public and private sources of funding, the transition to a low-carbon circular economy will also require better use of the current government budget revenue and expenditure.** The bulk of environmental tax revenues, which were among the highest in the EU in terms of GDP in 2019 (see Indicator 4.7), consist of *energy taxes*. Energy tax revenues decreased in 2018–2019 and consequently also the share of environmental taxes relative to GDP, which stood at 3.32% of GDP, which was at its lowest level in the last ten years. This was influenced by the reduction in excise duties on energy products in 2018, while the previous implementation of the state budget for 2020 shows that further reductions in excise duties in 2020 also resulted in a decrease of these revenues last year. The price deregulation of petroleum products in 2020 and the increase in margins in the final price of petroleum products towards the level of margins in neighbouring countries, which was forecast by traders, reduce the room for manoeuvre for raising excise duties on energy products in the future if they are not part of the synchronised policies of bordering countries. After 2015, the already modest share of revenue from *taxes on pollution and the use of natural resources* decreased, while *taxes on transport* increased, with the share of revenue expected to decrease in 2021 as a result of the reform of motor vehicle taxation and the abolition of the additional

<sup>207</sup> By establishing a framework to facilitate sustainable investment (Regulation (EU) 2020/852, 2020), significant progress has already been made in harmonising the classification of environmentally sustainable economic activities for financial market participants. The six criteria set out in this framework, which define the principle of not doing significant harm to environmental objectives, should also be taken into account when formulating the measures of the Recovery and Resilience Plan (EC, 2020f).

<sup>208</sup> The draft of Slovenia’s long-term climate strategy until 2050 was released for public discussion in September 2020. The document contains two investment scenarios: existing and additional measures. In March 2021, a public debate on the draft national strategy for terminating the use of coal and the restructuring of coal regions was launched, in line with the principles of fair transition (MZI, 2021).

tax on motor vehicles.<sup>209</sup> Although the majority of environmental taxes does not constitute a dedicated resource for financing and achieving environmental objectives, <sup>210</sup>such developments in recent years do not reflect efforts to limit pollution. The last tax reform, which relieved the taxation of labour in 2019 and 2020, did not take advantage of the opportunities for green tax restructuring, while maintaining other tax incentives of various forms (subsidies and reliefs) which are contrary to the objectives of reducing environmental burdens (MF, 2019, and JSI, 2020).

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<sup>209</sup> As of 2021, the additional tax on motor vehicles was abolished and at the same time the taxation of motor vehicles was renewed (taxation is now linked only to environmental factors and no longer to the selling prices of vehicles; the tax scale was also revised). When drafting the amendments to the Motor Vehicle Tax Act, the loss of revenue under this title was estimated at EUR 28 million (MF, 2020).

<sup>210</sup> Most of the revenues from environmental taxes are integral (unallocated) revenues of the state budget. Only some environmental taxes are allocated, e.g. the proceeds from the sale of emission allowances that are channelled to climate change mitigation measures through the Climate Change Fund.

## 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 economic activities with high value added. The goal will be achieved by overcoming silo mentality, preserving biodiversity, managing soil in a sustainable way, preserving quality agricultural land, sustainably developing forests and efficiently managing waters. The SDS 2030 recognises the importance of responsible spatial management. Climate change mitigation and effective adaptation and exploitation of the opportunities these bring will be of particular importance.

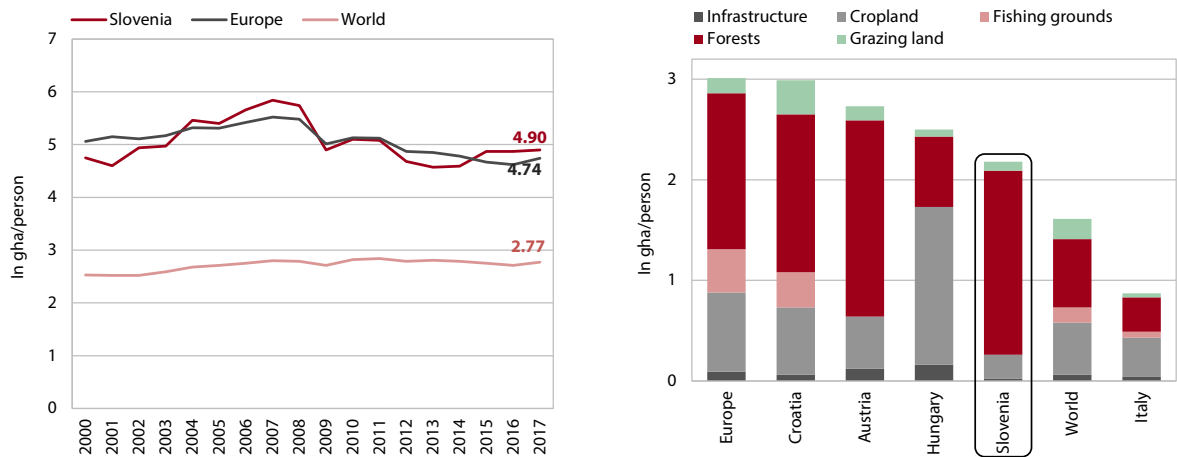
#### Performance indicators for Development Goal 9:

	Latest data		Target value for 2030
	Slovenia	EU average	
Share of utilised agricultural area, %	23.7 (2019)	39.2 (2019)	>24
Watercourse quality, mg O <sub>2</sub> /l	1.1 (2019)	2.0 (2017)	< 1
Ecological footprint, gHa/person	4.9 (2017)	4.7 (2017)	3.8

**Current production processes and lifestyles in Slovenia, as in the whole of Europe, are exerting too much pressure on nature, and there has been no progress since 2013.** Long-term changes in lifestyles have accelerated the exploitation of natural resources and increased pollution. The *ecological footprint*, which is one of the most comprehensive indicators of environmental burden, dropped to roughly the level of the beginning of the last decade during the global financial crisis, but in 2015–2017 (last figure) it increased again and, on a per capita basis, exceeded the average of Europe (York University Ecological Footprint Initiative & Global Footprint Network, 2021; see Indicator 4.8). This shows that economic development in these years

has been achieved through increased use of resources and increased environmental pollution. In Slovenia, *nature's biocapacity*, i.e. biological area with regeneration capacity, is below the European average on a per capita basis. The main share of Slovenia's biocapacity comes from forests, but the large area covered by forests is still not enough to absorb CO<sub>2</sub> emissions, which contribute most to the ecological footprint. The difference between ecological footprint and biocapacity, i.e. the *ecological deficit*, is therefore above the European average in Slovenia. Progress can only be made if recovery from the COVID-19 crisis is closely linked to an accelerated comprehensive transition to the planned low-carbon circular economy.

Figure 47: Ecological Footprint (left) and Biocapacity, 2017 (right)



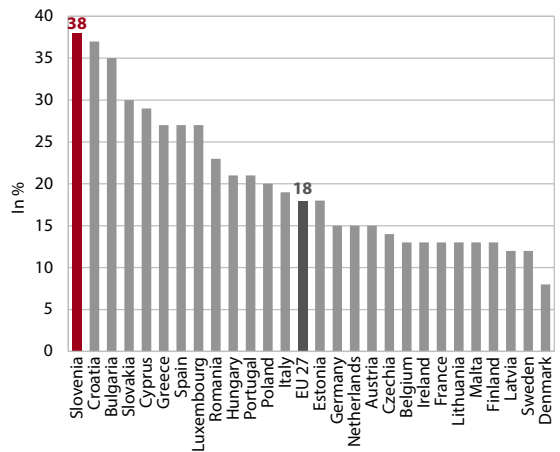
Source: York University Ecological Footprint Initiative & Global Footprint Network, 2021. Note: the global hectare (gha) is the fertile area needed to meet human needs for food and maintain its lifestyle and dispose of the waste generated in the process.



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 ranks at the top among EU Member States, with twice the average share of such area. Yet despite numerous activities to protect it, biodiversity in Slovenia has also continued to decline over the long term. The farmland bird index, which is one of the indicators of change, shows a decline in the farmland bird population.<sup>211</sup> The most pressing problems are (i) development, with the spread of urbanisation, transport and economic activities, (ii) poorly conceived management of waterways, mostly in connection with flood prevention measures, and (iii) agriculture, which provides habitat for protected species but also shrinks habitat in areas of very intensive agriculture. Investment in the conservation and restoration of nature will also be instrumental in the economic recovery of Europe following the COVID-19 crisis.<sup>212</sup> 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 COVID-19 crisis has even highlighted the importance of efficient and competitive supply chains.** Slovenia ranks among the EU Member States where the conditions for agricultural production are on average more difficult: the share of agricultural land in the total area is relatively low, while the land is fragmented and a relatively large part 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 quite poor by international

Figure 48: Share of protected areas – Natura 2000, 2019



Source: Eurostat, 2021.

comparison (see Indicator 4.9). In agriculture, significant structural changes, such as increases in the size of agricultural holdings and increased specialisation, are underway. 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.<sup>213</sup> The average yields per hectare are mostly below the EU average, which means that the impact on the environment is less severe but also indicates lower productivity of natural resources (see Indicator 4.10). Consequently, self-sufficiency in the majority of basic agricultural products, in particular organic produce, is relatively low. The vast majority of food is imported, with only about a fifth produced at home. In this context, the majority of exports are unprocessed, while processed agricultural products are imported, which is an untapped opportunity to increase value added. The establishment of efficient and competitive supply chains is crucial.<sup>214</sup> Agricultural policy faces major challenges that relate not only to sustainable food production and the provision of a source of income for producers and employees in supply chains, but also to the responsibility for nature and the conservation of its resources.

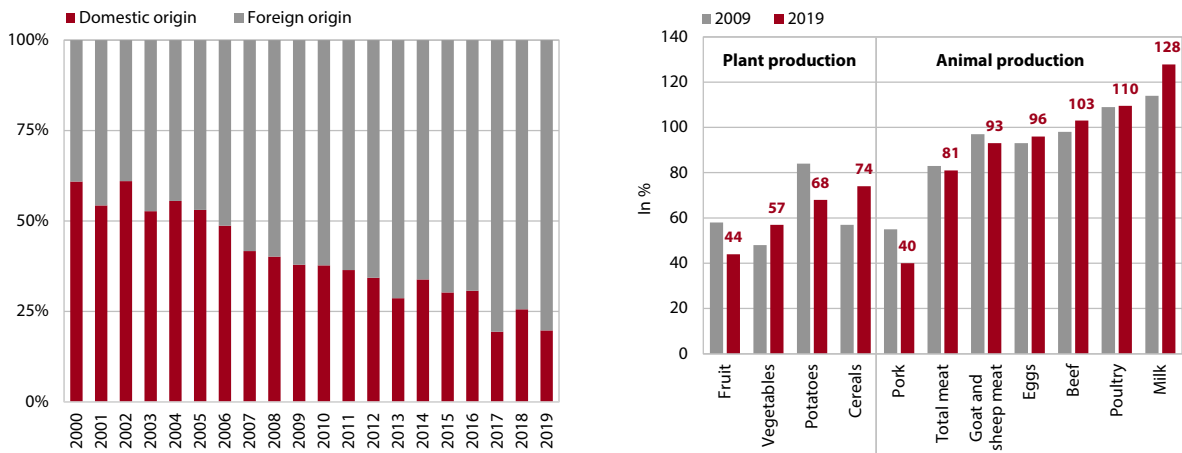
<sup>211</sup> It is quite difficult to determine biodiversity, because of the large number of species and interactions between them and with the abiotic environment. Indicators that broadly show the general condition include the population size of selected bird species, the farmland bird index, conservation of wildlife populations and forest conservation.

<sup>212</sup> More than half of the world’s GDP depends on nature and its services, in particular three economic activities – construction, agriculture, and food and beverage production. The 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 damaging former habits (EC, 2020c).

<sup>213</sup> The balance surplus of the element is defined as the positive difference between its input to the soil and crop uptake. It is desirable that the difference between the two is not too large (ARSO, 2021b).

<sup>214</sup> The COVID-19 epidemic has highlighted the importance of a stable and sustainable food supply chain. With the closure of the accommodation and food service activities, tourism and public institutions which had previously regularly purchased domestic agricultural products and foodstuffs, producers and processors who had agreements and concluded purchase contracts were the least affected.

Figure 49: Origin of food consumed (left) and degree of self-sufficiency in basic agricultural products, Slovenia



Source: ARSO, 2021b. Note: Includes cereals, meat, eggs, potatoes, vegetables, fruit, sugar and rice (left); SURS, 2021, and KIS, 2020a (right).

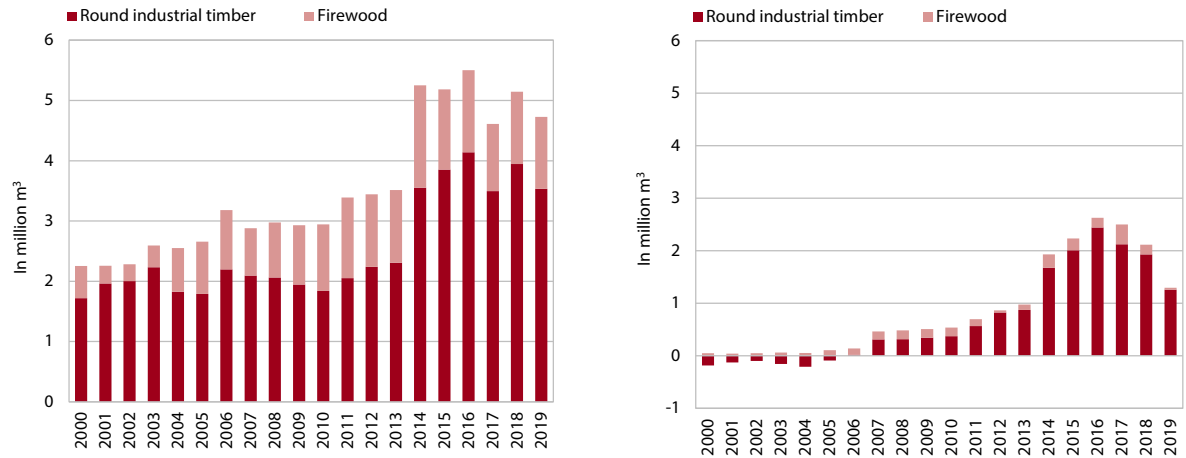
Box 9: Food supply, agriculture and COVID-19 and new agricultural policy

**During the COVID-19 crisis, activities related to uninterrupted food supply increased in Europe and the wider area.** In emergency situations, such as a pandemic, a good overview of the situation in agri-food supply chains in local and global markets is crucial. During the COVID-19 epidemic, imbalances occurred from time to time, but there was no intense pressure on food prices due to rapid and effective action. This reduced market uncertainty and prevented unnecessary purchases for stock. However, good transparency in the functioning of markets is not self-evident: timely investments in knowledge and digitisation are needed, such as the on-going monitoring of market and policy developments, the collection of information, and the communication of findings. Only in this way can policy responses be adequate and timely (OECD, 2020b).

**In Slovenia, there were no major supply disruptions partly because of emergency measures that were put in place to alleviate negative effects on the activity.** Restrictions on movement, difficulties in trading goods and services across national borders, tightened measures in the tourism sector, and the closure of accommodation and food service activities and public institutions led to an imbalance between supply and demand; nevertheless, general and specific policy measures helped. Three *general measures* were as follows: (i) the free sale of agricultural products and raw materials and the provision of veterinary services; (ii) changes in the implementation of certain policy measures, for example more targeted key investments in plant production, irrigation systems, greenhouses and the cultivation of permanent crops in order to secure uninterrupted food supply, in livestock farming, investments in processing and marketing, and, in general, in the collection centres, storage facilities, cold stores and packing lines; and (iii) social and economic interventions to protect producers from loss of income, in this case financial assistance for incapacity to work due to infection with the virus and deferral or exemption from social security contributions. However, *specific emergency measures* were adopted for the sectors that suffered the greatest loss of income as a result of COVID-19: meat production, wine production, the implementation of supplementary activities on a farm and forestry (KIS, 2020b). The introduction of tourism vouchers for farms that are also engaged in tourism provided great support and also increased the number of guests.

**The COVID-19 crisis has raised awareness of the need to build a more resilient agri-food system.** The *new EU Common Agricultural Policy for the 2021–2027 programme period*, which will this time be implemented with a two-year delay (in 2023), will focus on the rationality of the measures and the achievement of targets (rather than compliance with rules and coherence). Member States will have greater discretion to decide how to achieve the CAP objectives while responding to their specific needs. Slovenia adopted the resolution entitled “Our food, rural areas and natural resources beyond 2021”, setting the basic strategic framework for policy action and defining a set of needs for action (ReNPURSK, 2020). On its basis, the *2021–2027 Strategic Plan is being drawn up*, which will include the measures of the two CAP pillars. The goals of major importance include generational rejuvenation and competitive market-oriented economies, the tackling of climate change and risk management, the environmentally friendly production of safe and quality food, and the improvement of the income situation of producers. The transition to green, digital and sustainable, circular and climate-neutral agriculture is essential. Climate and environmental measures will require at least 20% of direct payments and at least 30% of rural development funding (MKGP, 2021a).

Figure 50: Production (left) and net exports of (right) forest wood products



Source: SURS, 2021.

**The management of forests, which cover a large proportion of the land area of Slovenia, has in recent years been dealing with the mitigation of the effects of natural disasters and wood pests; with extensive logging, wood as a raw material has still remained insufficiently exploited.** Slovenia is one of the three most forested countries in Europe, with its forests being its best-preserved natural ecosystem. This has many beneficial effects on the environment. Nevertheless, a very high share of forest is not desirable in terms of optimal use of space. Slovenia's forest cover has been increasing over the long term, but the changes have not been uniform. It has increased in areas where there was already ample forest in terms of landscape diversity and decreased in areas of intensive agriculture and, in particular, in suburban areas (Resolution on the National Forest Programme, 2007). In recent years, forests have been hard hit by large-scale natural disasters: glaze ice in 2014, which was followed by a strong windthrow in 2017 and 2018, and the overpopulation of wood pests. 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 decreased (Stritih, Sustainable Development, 2018). The intensity of felling increased due to forest restoration (see Indicator 4.11), and the high share of net exports of unprocessed timber, especially of the highest quality category, was particularly problematic in terms of achieving higher value added. In 2019, the increment in forests amounted to 8.8 million cubic metres of wood and 60% of this volume was harvested. It yielded 4.7 cubic metres of forest food products, while net exports amounted to more than a quarter of this quantity. Since the establishment of the state forest company in 2016, the export of unprocessed timber has decreased.<sup>215</sup> There still exists a significant

untapped potential for faster development of the forest-wood chain, also because tree felling is still lower than allowed by regulations.

**Soil, which is one of the basic limited natural resources, is mostly unpolluted in Slovenia.** Despite the good overall condition of soil, there are individual areas highly contaminated by some *heavy metals*, e.g. cadmium, zinc, lead, arsenic and mercury (BF, 2009, and ARSO, 2021d). Exceeded action values, and in some areas critical values, have been detected in particular in areas with a long history of mining, smelting and metallurgic activity and in areas with denser traffic. Soil degradation may be caused by unsustainable management, overexploitation, climate change and pollution. 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.<sup>216</sup> These and several other areas in Slovenia are facing a great need to clean polluted soil and conduct remediation of polluted sites, but this is often technologically demanding and entails high costs (Slovenian Partnership for Soil et al., 2018.). Furthermore, some of the pollution with heavy metals is not the result of human activity, since heavy metal levels may also depend on bedrock. In Slovenia, the pollution of

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 activities. The most important purchasers of wood are sawmills, wood composite industries, cellulose and paper industries, and other wood processors (SiDG, 2021).

<sup>216</sup> In the Mežica Valley, measures have been in place since 2008 to remedy the problem of soil pollution, including the asphaltting 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).

<sup>215</sup> One of the objectives of the Slovenski državni gozdovi d.o.o. company (SiDG), which manages one-fifth of all forests in Slovenia, is to increase

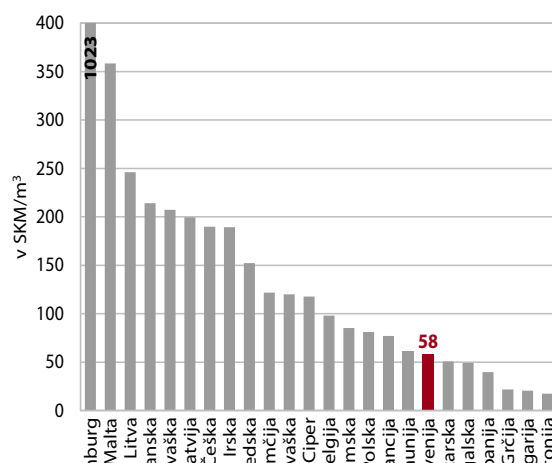
soil with *organic pollutants* is less pressing, since in most areas action values have not been exceeded. In some areas of intensive agricultural production, limit values of pesticides or their breakdown products have been recorded to be moderately exceeded. It is particularly important to monitor soil quality on an ongoing basis and prevent excessive release of pollutants into the soil, especially in areas designated for food production, also due to the impact on water quality.

**Slovenia has abundant water resources; although the quality level of river waters has not been converging with the ambitious SDS targets in recent years, it is the highest in the EU.** The *abundance of water resources* is evident from the per capita availability of freshwater resources, which is at twice the EU average and the fourth highest among EU Member States. On average, water 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 they may adversely affect fundamental values and needs, such as human health and ecosystems, food production and energy production. Water use in Slovenia is not optimal, as shown by *overall water productivity*, measured as GDP per unit of pumped freshwater, which has been improving at a slow pace over the long term and remains low by international standards. The share of water for irrigation remains almost negligible. *Water quality*, measured by biochemical oxygen demand and nitrogen and phosphorus content, has improved to the highest level among EU Member States due to reduced pollution and the increasing and more efficient treatment of wastewater (see Indicator 4.12). There has been a significant improvement in its chemical, biological and microbiological parameters.<sup>217</sup> Slovenian rivers are fairly oxygen-rich on average and contain low levels of nutrients, organic matter and pesticides, though in some areas their content is nevertheless excessive. Adriatic rivers and the Soča and Upper Sava basins have the best ecological status, with the situation worst in the Mura and Drava river basins, which are areas with more expansive and intensive agriculture (Trobec, 2017, and ARSO, 2021b).

**Air quality in Slovenia is held back by high concentrations of particulate matter, which can increase health threats in the situation of the COVID-19 epidemic.** The release of *particulate matter (PM) particles* is created mostly by sub-optimal burning of wood biomass in household furnaces and in road transport. Despite the downward trend, the exposure of the urban population to these particles is still relatively

<sup>217</sup> 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.

**Figure 51: Water productivity, 2018 (or latest data)**



Source: Eurostat, 2021. Note: Water productivity is measured as GDP per unit of pumped freshwater.

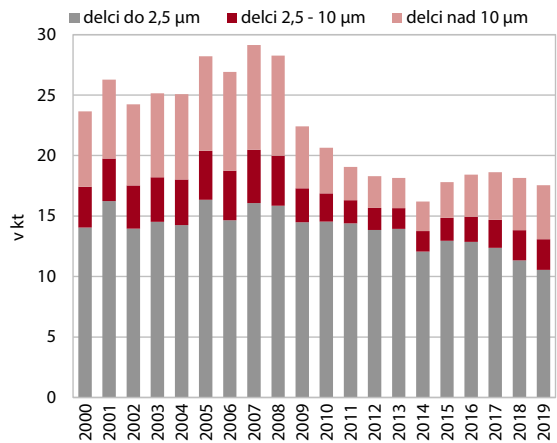
high and exceeds the EU average (see Indicator 4.13). In the cold part of the year, local concentrations are highly dependent on location and wind conditions. Daily limit values of PM10 were most commonly exceeded at measuring points in towns, which are more affected by transport emissions. There is, however, significant uncertainty about the conditions in populated rural areas, where there are far fewer measurements.<sup>218</sup> Aside from greater awareness of the population, the biggest improvements could be achieved through broader uptake of technologically more advanced combustion plants and improved energy performance of buildings. In addressing problems *with some other pollutants, for example sulphur and nitrogen oxide*, 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 (Ogrin, 2017).<sup>219</sup> In Europe, air pollution is recognised as the most significant environmental risk factor for human health, because it causes high morbidity and premature mortality. EU policy in this area is intensifying.<sup>220</sup> In order

<sup>218</sup>Excessive concentration of airborne PM<sub>10</sub> particles is also a legal issue in that it constitutes a breach of the Ambient Air Quality Directive.

<sup>219</sup> In this context, the introduction of new measures continues. Recent efforts have been aimed at reducing emissions from small and medium-sized combustion plants.

<sup>220</sup> The EU Directive on the reduction of national emissions, which is the central element of the comprehensive »Clean Air Programme for Europe«, sets stricter limits for five major pollutants, including PM particles. Slovenia is expected to reduce PM<sub>2.5</sub> emissions by 25% after 2020 compared to 2005 and by 70% after 2030 (EU average by 22% and 51% respectively). This will require new investments, but the savings on labour are supposed to be several times higher due to lower healthcare and sickness absence costs. Initiatives such as more stringent air pollutant emission standards for vehicles, revision of the Industrial Emissions Directive, and any 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 2021–2027 and the NextGenerationEU instruments (EC, 2021) will help to meet the commitments.

Figure 52: Particulate matter emissions, Slovenia



Source: ARSO, 2021c.

to reduce the social costs associated with air quality, transport-related measures will also need to be stepped up by increasing investments in rail infrastructure development and the electrification of rolling stock while promoting sustainable urban mobility.

As regards space, which is also a limited natural resource, some positive shifts in the revival of functionally derelict areas (FDAs) have been recorded, along with intensified construction activities. Space requires economic use, so the existence or even expansion of FDAs is not acceptable. The efforts to integrate activities on already built-up but abandoned and underutilised areas have continued in recent years (see Indicator 4.14). The registration and ongoing monitoring of these areas have helped to identify the problem and the consequences of uneconomical use of space. The first establishment of the database in 2017 showed the state of play of FDAs, reflecting the effects of processes during the global financial crisis after 2008. In 2017–2020, economic growth had a broadly positive impact on space through the revival and restoration of certain FDAs for reuse, but new ones were still emerging to a lesser extent. The first effects of the COVID-19 epidemic indicate changes that are already visible in space. With increased construction activities, the FDAs with no legal and financial obstacles are being rapidly remedied. At the same time, certain activities have been abandoned and others have been adapted and restructured.<sup>221</sup> Further trends will also depend on the duration and depth of the COVID-19 crisis.

Box 10: Study on health-related social costs of air pollution in European cities

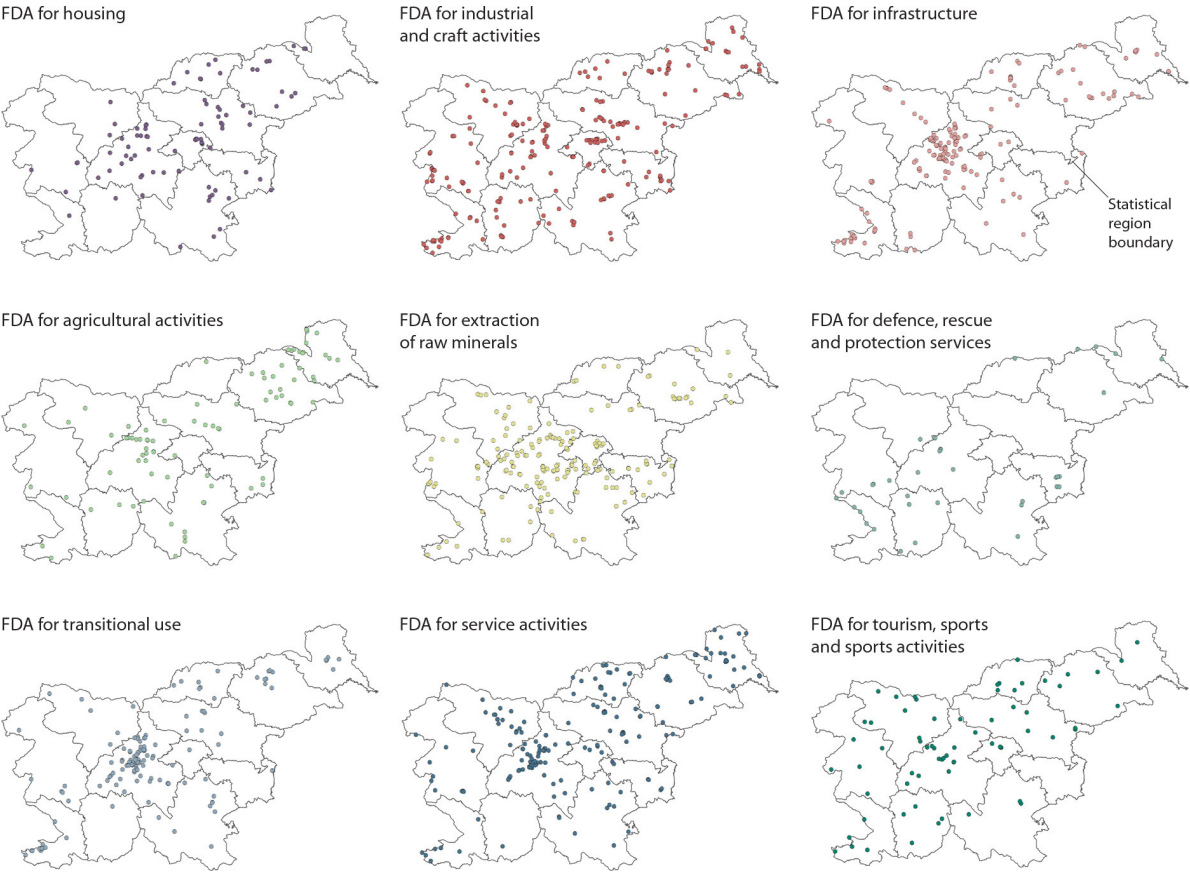
**Social costs due to poorer air quality are relatively high, and this without taking into consideration the consequences of the COVID-19 pandemic.** The study (CE Delft, 2020) investigated the health-related social costs of air pollution in around 430 European cities (the EU-27 plus the UK, Norway and Switzerland). These costs comprised both direct healthcare expenditures (e.g. for hospital admissions) and indirect health expenditures (e.g. due to reduced life expectancy). The study included concentrations of fine particulate matter, ozone and nitrogen oxides. Researchers drew attention to (i) the significant impact of transportation habits and transport policies on air quality and (ii) the fact that the costs related to the COVID-19 epidemic were not included in the study. These costs can be relatively high due to exacerbated effects of air pollution on health during the epidemic conditions. Since the concurrent presence of several diseases is one of the most important risk factors, morbidity and mortality from COVID-19 are higher in conditions of poorer air quality and associated diseases.

**Damage costs of air pollution per capita in Ljubljana are higher than the average observed in European cities.** The calculations showed that in 2018, the welfare of the population in the European cities looked at was on average lower by about EUR 1,280 per capita due to air pollution, which is equivalent to around 4% of the income generated. The calculated social costs were higher in Central and Eastern Europe. The two largest Slovenian cities were also included in the research. For Ljubljana, the calculated per capita damage in 2018 amounted to about EUR 1,500 (and to around EUR 430 million for the city); for Maribor, per capita damage amounted to about EUR 970 (and to around 110 million for the city).

<sup>221</sup>These will be mainly areas of service activities, e.g. shopping centres and old town centres with heterogeneous services and areas of tourism and recreation.



**Figure 53: Functionally derelict areas by type, situation as of September 2020**



Source: Lampič, 2020.



## / 5

## A high level of cooperation, training and governance efficiency

In recent years, Slovenia has made a significant improvement in individual areas of the country's activities. Progress has been made in the digitisation of public services, the introduction of quality standards in public administration and the reduction of administrative barriers, while the efficiency of the justice system and the profitability of state-owned companies have also improved. Despite progress, institutional competitiveness is still characterised by a lack of effective public sector governance based on better coordination with all interested publics, a relatively high perception of corruption and a still high burden of state regulation. Surveys of business sentiment suggest that the main obstacles to business are typically related to excessive red tape, relatively rigid labour law and tax policy. In 2020, the COVID-19 epidemic significantly marked the whole area of public services and highlighted a number of challenges related to the strategic management of public institutions and, above all, the need to improve the capacity and efficiency of public administration. One of the key conditions for successfully tackling the epidemic and Slovenia's recovery and development in the post-epidemic period is citizens' trust in institutions, which has declined since the outbreak of the epidemic and remains among the lowest in the EU. Therefore, the challenge ahead lies in ensuring proper communication with the public, increasing transparency and improving the involvement of key stakeholders, including civil society and professional circles, in the adoption, implementation and monitoring of measures. It bears noting that Slovenia continues to be one of the most peaceful and safest countries in the world, which has a positive impact on the quality of life of its inhabitants. As a member of the EU, Slovenia participates in international organisations, operations and missions that ensure a stable international environment and human security.

## 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.

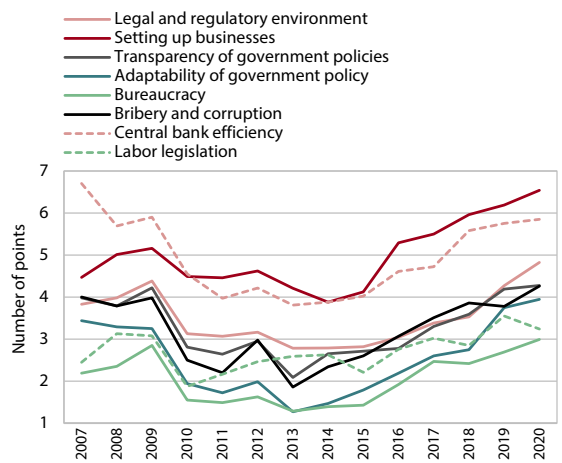
#### Performance indicators for Development Goal 12:

	Latest data		Target value for 2030
	Slovenia	EU average	
Trust in public institutions, %	Parliament: 22 Government: 25 Local authorities: 50 (2020, summer survey)	Parliament: 36 Government: 40 Local authorities: 57 (2020, summer survey)	At least half of the population trusts public institutions (average of the latest three surveys)
Executive capacity, average score on a 1–10 scale	4.97 (2020)	5.94 (2020)	EU average in 2030

**Institutional competitiveness has been gradually improving, but it still lags behind the EU average.** The international indicators of competitiveness (IMD, WEF, World Bank) show that institutional competitiveness deteriorated significantly during the global financial crisis, with a marked decrease in the values of survey indicators.<sup>222</sup> The trend is largely attributed to the sluggish adjustment to altered circumstances, inefficient support for the business environment, and the performance of the legislative, executive and judicial branches. More favourable macroeconomic conditions and more stable public finances in 2015–2019 contributed to improving institutional competitiveness, which was among the highest in the EU during this period (IMD, 2020a). During this period, government measures were gradually adjusted to the newly emerging situation, but according to this indicator, Slovenia still lags significantly behind the EU average. Institutional competitiveness also depends on the country’s ability and readiness to adopt and deploy digital technologies. However, the epidemic in 2020 gave rise to new challenges and opportunities for Slovenia’s faster progress in this area (IMD, 2020b). In this context, the epidemic has triggered a number of changes in cooperation and the distribution and provision of services, with the technologies of the fourth industrial revolution at the heart of these changes (IMAD, 2020a). Early 2020 surveys show a further improvement in institutional competitiveness, while the effects of the epidemic on the trust of business people are still unclear and largely dependent on government measures to

tackle the crisis.<sup>223</sup> With the spread of the epidemic, the business sentiment<sup>224</sup> in Slovenia, as in other EU Member States, declined sharply, but by the end of 2020 it was approaching pre-epidemic levels.

Figure 54: Government efficiency indicators for Slovenia according to the IMD



Source: IMD, 2020a. Note: Higher scores are better. With reference to more detailed indicators, the maximum score is 10; all indicators are survey-based.

<sup>222</sup> The decline in survey indicators was also the result of a sharp deterioration in business sentiment during the crisis, which was more pronounced than in other countries.

<sup>223</sup> The IMD survey was conducted between February and the beginning of April 2020, so the effects of the epidemic on the opinion of business people by individual areas were taken into account to a limited extent.

<sup>224</sup> Measured by economic climate (SURS) and ESI indicator (Eurostat).

**Trust in public institutions remains relatively low and below the EU average.**

Following a gradual increase in 2015–2019, the level of trust in key institutions decreased again in 2020 amid the spread of the COVID-19 epidemic, this more than the EU average (see Indicator 5.1). This is also reflected in satisfaction with the way democracy works, which declined in 2020 and was among the lowest in the EU<sup>225</sup> (Eurobarometer, 2020d). The Valicon survey (2021) suggests that during the epidemic, trust in healthcare and education increased the most, with the greatest loss of trust in the President of the State.<sup>226</sup> Trust in government institutions is a prerequisite for successfully addressing the COVID-19 epidemic and for the country's post-epidemic recovery and development, since it helps to facilitate policy implementation and effective governance of the state because people who trust institutions are more willing to comply with government authorities and laws, pay taxes and participate in joint actions (Eurofound, 2018).

**The turnout in elections at which political representatives are directly elected is relatively low compared to other EU Member States.**

The voter turnout for the last parliamentary elections stood at 52.6%, which is lower than in most EU Member States, while fewer than half of the voters cast ballots in the last local elections (2018: 49.2% at the runoff election) and the elections of the President of the Republic of Slovenia (2017: 42.1%) (IDEA, 2020; DVK, 2018). Slovenia traditionally has a low voter turnout for elections to the European Parliament, which in 2019 was the highest so far (28.9%) but still among the lowest in the EU. The low voter turnout is attributed to voters' lack of trust in political parties and institutions of the state, which even declined in 2020.

**Social dialogue plays an important role in addressing issues and measures related to social and economic policies in Slovenia, and there is still a great deal of potential for its development.**

The typical forms of social dialogue are bilateral (between representatives of employers and employees) and trilateral, which takes place at the national level (among representatives of the state, employers and employees). The central forum of dialogue is the Economic and Social Council (ESC); social dialogue involves all kinds of negotiations, consultations and exchanges of information between employers, employees and representatives of the state on matters of shared interest regarding economic and social policies. The state plays an important role in social dialogue, even when it is not directly involved therein, as it provides an appropriate institutional framework and is responsible for ensuring the right political and social climate. An overview of past practice shows that there are fertile grounds in Slovenia for the development of

social dialogue, which can be achieved by improving the know-how, competences and awareness of social partners (ZSSS and RGZC, 2018). The Industrial Democracy Index<sup>227</sup> shows that the involvement of stakeholders in social dialogue is high, but cooperation between the social partners in Slovenia could still be improved (Eurofound, 2018). In order to strengthen social dialogue, the Protocol of the Government of the Republic of Slovenia and the social partners on the respect for and promotion of social dialogue was signed in November 2019 and the Rules on the Operation of the ESC were amended (ESF, 2019). In 2020, due to frequent dissatisfaction with the level of dialogue between the social partners, the ESF held a debate highlighting problems in coordinating emergency measures and adopted a protocol on the progress of negotiations on emergency laws that are directly associated with the COVID-19 epidemic. Broader civil society (multilateral social dialogue) is also increasingly involved in social dialogue. In particular at the EC level and in most of the EU institutions, NGOs are extremely active, while in Slovenia they have not yet been given greater weight despite the European Commission's incentives and recommendations (EC, 2019). However, the EC points out that the public does not always have sufficient opportunities to participate in legislative procedures,<sup>228</sup> as the recommended consultation period is often not taken into account and in some cases nor are comments properly taken into account (EC, 2020e).

### 5.1.1 Performance of the public administration and the provision 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 rating is strongly affected by inefficient strategic planning (i.e. the coherence between development policies and national and other strategies), the lack of organisational reforms, the fragmentation of public sector bodies, weak inter-ministerial coordination, and the low involvement of various expert publics in government decisions (see Indicator 5.2). This has also hampered more effective implementation of strategies in various areas and slowed the processes of the absorption of EU funds, which also leads to a less attractive business environment. The fundamental document for the efficient performance of public administration is the Public Administration Development Strategy 2015–2020, which is implemented

<sup>225</sup> In the summer of 2020, 41% of the respondents were satisfied with democracy, which is 6% less than in the autumn of 2019. Only Bulgaria had a lower level of satisfaction with democracy.

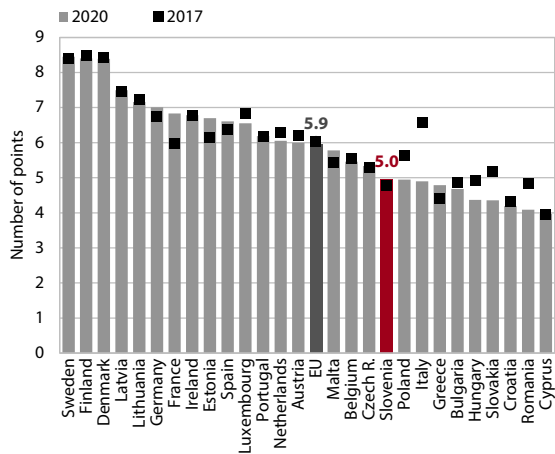
<sup>226</sup> The least trusted institutions remain the National Assembly, the Government and political parties.

<sup>227</sup> The Industrial Democracy Index incorporates four dimensions: the autonomy of social partners in wage bargaining, representativeness at the macro (social dialogue) and company level (works councils), the participation of employees in management decision-making at the company level, and the interaction of all parties in collective bargaining and management decision-making.

<sup>228</sup> The draft laws are published on a dedicated e-Democracy website, through which the public can send their contributions.

in conjunction with the adopted biannual operational programmes. The OECD (2018b) has pointed out that the objectives and measures have been properly designed but should be implemented more systematically (Rakar and Kovač, 2019). The COVID-19 epidemic has highlighted the need for effective governance, as the new situation requires a different way of responding and flow of information, as well as the relevant competences of public employees and leaders. This has already accelerated the introduction of some solutions regarding the digitisation of public administration which were planned by the end of 2020 in line with the strategy (e.g. SI-Trust, Statist and the establishing of internet auctions) (MJU, 2021a).

Figure 55: Executive Capacity Index



Source: Bertelsmann, 2020; calculations by IMAD. Note: The index uses eight indicators to measure the strategic governance of public institutions (see Indicator 5.2). Higher is better, the maximum score being 10.

**The development of eGovernment services has gradually improved in recent years, but the gap still remains wide, especially in the uptake of these services.** Citizens can access the eGovernment portal, offering a one-stop shop gateway to electronic services for doing business with the state, and the e-VEM portal – Slovenia Business Point for businesses and entrepreneurs. The OECD (2020a) stresses the need for Slovenia to improve its coordination and reinforce its vision and analytical approach to support the digital transformation of the public sector and the need for stronger policy levers to lead the digital transformation. Data show that Slovenia has made progress in all digital public services indicators but has failed to reduce the lag behind the EU average. The accessibility of services in particular is well assessed, as all basic public services (EC, 2020b and 2020h) are available to citizens online. Despite a wide range of services to support businesses, the uptake of these among businesses remains largely lagging behind other countries, while their uptake

among citizens is also slightly lower,<sup>229</sup> which results in a highly untapped potential of eGovernment services. Important reasons for the lower use are poorer user experience, the lack of a widespread and user-friendly method of electronic<sup>230</sup> identification, and very low trust, which mainly shows the need to build awareness of advanced digital technologies (EC, 2020h). The OECD (2020b) stresses the need to further improve and unify the<sup>231</sup> user experience. The uptake of e-health services, however, is among the highest in the EU (the introduction of electronic prescriptions and referrals), and the introduction of the electronic sick note in 2020 also made a positive contribution. The tax administration also offers a wide range of applications through e-tax services (e.g. tax returns for citizens and businesses) (EC, 2020h). The spread of the COVID-19 epidemic is expected to increase the uptake of e-services, including eGovernment services, which is due to the limited availability of physical services. A study by the Faculty of Administration indicated an increase in digitisation in administrative units, in terms of both doing business with customers and cooperation with ministries and other administrative units. This is expected to increase the use of digital communication channels and eGovernment also after the end of the epidemic (Aristovnik et al., 2020).

**The introduction of quality models in public authorities continues.** An important goal of introducing a comprehensive quality governance system is to increase employees' awareness of the importance of quality as a value in public administration. Quality in the public sector is controlled using the Common Assessment Framework (CAF), which<sup>232</sup> was initially introduced in administrative units and over recent years also in the state administration authorities. In 2020, more than 100 users participated in the CAF project; the ultimate goal of using the model is to contribute to the development and good governance of organisations by improving their performance. Due to the epidemiological situation, the regular CAF EPI external assessment was carried out digitally in 2020 and the results suggest that, as in previous years, more attention should be paid to the preparation of proposals for improvements and to acquainting users with them (MJU, 2020c). The quality of service is also linked to the satisfaction of users of public services, which is regularly monitored by the Ministry of Public Administration. The survey has shown that the majority of customers are satisfied with the expertise and

<sup>229</sup> According to DESI, eGovernment forms were used/submitted in Slovenia by 59% of internet users (EU: 67%).  
<sup>230</sup> The SI-PASS service is a single point for verifying the identity of various users (citizens, business entities and public employees) and for electronically signing applications and other documents.  
<sup>231</sup> Contents are accessible from all devices (computer, phone, tablet, etc.) and the communication with the user is the same regardless of the channel used.  
<sup>232</sup> 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 EFQM European Quality Management Fund.

professional qualification of employees at administrative units, with dissatisfaction mostly associated with waiting times (MJU, 2018).

**In recent years, a number of measures have been taken to modernise and digitise the public procurement system and optimise its transparency, but Slovenia still lags behind in terms of efficiency.** In 2018 and 2019, the e-JN (electronic public procurement) information system was established; this reduces contractor costs, shortens procedures, and allows for greater transparency (the STATIST application) and better supervision of the use of public funds. With the establishment of the eRevision portal in 2019, the electronic information system was also introduced<sup>233</sup> for legal protection procedures in public procurement, while eAuction is a new market mechanism that enables dynamic pricing in a competitive environment. In 2019, the Act Amending the Legal Protection in Public Procurement Procedures Act was adopted; the amended Act strengthened the legal certainty of bidders and shortened the deadlines for review procedures for major projects, which should have a significant impact on efficiency. The OECD (2019) states that Slovenia ranks among the most developed EU and OECD countries in terms of transparency of public procurement and publicly available information but lags behind the systems that ensure greater efficiency (e.g. in terms of analysis of the effects of public procurement and lengthy procedures in handling complaints). The lack of competition is also a problem due to a relatively large number of calls for tenders with only one contractor, which could increase the price and the risk of corruption (EC, 2020d; MJU, 2020d). The volume of public procurement in recent years represents over 10%<sup>234</sup> of GDP, of which around a third is represented by public procurement in the healthcare sector. Several joint procurements have also been carried out for government authorities and public administration authorities, with the priority given to the centralisation of public procurement in the healthcare sector (e.g. pooling of contracts for medicines, medical devices and equipment) (MJU, 2020a).

**In recent years, Slovenia has achieved a significant reduction in administrative burdens, but these are still heavy compared to other EU Member States.** Based on surveys among business people, progress in reducing administrative barriers has been reported by several international surveys (WEF, 2019; IMD, 2020a). 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 complemented by new measures. According to the Ministry of Public Administration (2021c), the measures have annually produced high savings; within the “Stop the Bureaucracy” project, evaluations of key measures under the single database of measures are regularly published.<sup>235</sup> Over recent years, several key measures have been in place in areas including entrepreneurship (the SME test, setting up the SPOT (e-VEM) system – Slovenian Business Point, improving the availability of financial resources for start-ups, voucher counselling), the healthcare sector (electronic sick note – eBoI), the environment and spatial planning (new spatial planning and construction legislation), services (reforming the regulation of professions and activities), public procurement, and the promotion of investments. The OECD (2019a) estimates that Slovenia is lagging behind other EU Member States in the widespread use of regulatory impact analysis (RIA) and in ex-post evaluations of the impact of adopted legislation. Although regulatory impact analysis is conducted in areas relating to entrepreneurship (e.g. the SME test), a key problem remains the carrying out of a systematic and comprehensive analysis of the regulatory impact on public finances, the economy, the environment and society as a whole. To this end, an action plan for 2019–2022 was adopted; this contains systemic measures to optimise and modernise the formulation of regulations (MJU, 2019). In 2019, more than 95% of the proposed acts were assessed in terms of their impact on at least one area, with a very high proportion of assessments that found no impact on the area analysed (MJU, 2020b).

### 5.1.2 Impact of public institutions on the economy sector

**According to various estimates, the main obstacles to business are related in particular to the efficient functioning of state institutions.** An efficient institutional framework is essential to creating an environment conducive to business which is competitive and stable. One of Slovenia’s main advantages is its well-qualified workforce (a favourable ratio between the quality and price of labour/knowledge is particularly important for foreign investors), while at the same time companies state that good staff are hard to find and keep (IMD, 2020a; Jaklič, Koleša and Knez, 2018). The World

<sup>233</sup> The eRevision portal is an online information portal of the National Review Commission; it is managed by Javno podjetje Uradni list Republike Slovenije, d.o.o. The portal is used for the electronic exchange of information and documents in the pre-review procedure, review procedure and appeal procedure and for the provision of information on the course of these procedures on the public procurement portal.

<sup>234</sup> According to the statistics, the volume of public contracts awarded in 2019 amounted to EUR 5.5 bn. The share of public procurement in GDP in 2019 stood at 11.5% (MJU, 2020d).

<sup>235</sup> Since 2009, 170 measures have been assessed in 14 areas and thus more than EUR 420 million of savings per year have been implemented. The measures were assessed in accordance with the common methodology for measuring administrative costs (according to the international SCM methodology). In 2016–2019, 36 measures were assessed, by means of which a reduction of regulatory burdens was achieved in the total amount of EUR 88.7 million.



Bank and the OECD state that administrative barriers to firms entering and exiting the market are lower than the EU average and that the introduction of a one-stop system and changes in insolvency legislation have contributed to this to a significant extent. According to economists and international institutions, the problem remains, in particular, support to business operations, which is mainly reflected in excessive bureaucracy (e.g. the length and complexity of procedures relating to public services), tax policy (e.g. the labour cost burden) and relatively rigid labour legislation<sup>236</sup> (IMD, 2020a; Doing Business, 2019; WEF, 2019; OECD, 2018a). Such estimates still hold true, although Slovenia has taken several measures in recent years to gradually reduce administrative burdens (see Section 5.1.1), and holiday allowance tax reliefs have been adopted in tax policy (2019). In 2020, a change in the personal income tax scale and general reliefs were introduced; this resulted in an increase of income tax relief for certain groups of taxpayers (with higher education, professionals), and an eAccount was introduced which facilitated the payment of taxes and contributions by means of a single payment order (MF, 2021; MJU, 2021b). In 2020, the Strategic Council for Debureaucratisation was established; this drafted proposals for reducing administrative barriers in tax, economic (simplified and unified reporting to state institutions, integration of different registers, regulation and simplification of teleworking arrangements, shortening procedures for obtaining work permits for foreigners) and environmental areas. On the basis of these proposals, a proposal for a new debureaucratisation act is under consideration in the National Assembly (2021); it aims to increase the competitiveness of the business environment by reducing administrative barriers.

**State ownership of companies is more widespread in Slovenia than in other EU Member States.** An OECD survey (2018a) shows that this is particularly true of some network industries where state-owned enterprises are also the market leaders (e.g. in transport, energy and telecommunications). International organisations have also cautioned against state interference in company operations and a lack of good corporate governance in state-owned companies (OECD, 2018a; WEF, 2019; Doing Business, 2019; IMD, 2020; EC, 2020d). The analysis of the corporate governance of companies with state capital investments has shown that governance has improved in recent years, with major discrepancies in terms of compliance with the recommendations in the area of diversity policy, the system of corporate integrity, and public publication of goods and services contracts (SDH, 2020a). The proposal to reform the SSH and transfer most of the investments of the Republic of Slovenia, Pension and Disability Fund Management, D.S.U., Property Management and Consultancy, the BAMC and the Pension and Disability Insurance Institute

into the National Demographic Fund foresees significant changes in the management of state property (proposal for the National Demographic Fund Act, 2020).

**The return on equity in state-owned investments has further improved despite the change in the portfolio structure in 2019.** Slovenian Sovereign Holding (SSH) is the manager of state-owned companies; it provides conditions for the active management of assets in accordance with annual management plans (Ordinance on state-owned assets management strategy). (Official Gazette of the Republic of Slovenia [*Uradni list RS*], No. 53/2015). The concentration of investments in the management portfolio is relatively high, with the ten largest investments at the end of 2019 accounting for almost 78% of the book value of the total portfolio<sup>237</sup> (SDH, 2020a). Three-quarters of the portfolio consisted of strategic investments and the remainder were significant and portfolio investments.<sup>238</sup> It is worth noting that at the end of 2020, the SSH transferred all strategic and significant investments to direct state ownership. In the period of favourable economic conditions, the net return on equity (ROE) in the portfolio of the Republic of Slovenia and SSH (6.9 % in 2019) was increasing, which made the return on operations of publicly owned companies exceed the SSH's expectations. The amount of dividends for the financial year 2019 decreased significantly compared to previous years (from EUR 252.9 million in 2018 to EUR 85.9 million in 2019), which can be attributed to the changed portfolio<sup>239</sup> structure and the tightening of the economic situation as a result of the COVID-19 epidemic.<sup>240</sup> In the second half of 2020, a number of portfolio companies also showed the economic consequences of the crisis, which will result in lower expected dividends in 2021 and a lower net return on equity (ROE) of the portfolio for 2020.

**The planned withdrawal of the state from company ownership through the SSH has been largely concluded and has continued through the BAMC until 2020.** After the divestment of NLB d.d. and Abanka d.d. in 2018 and 2019, there was no major divestment of assets in the companies in 2020.<sup>241</sup> From the list of 15 state-owned companies managed by the SSH and designated for sale, ten have been disposed of so far<sup>242</sup>,

<sup>237</sup> At the end of 2019, the total book value of assets under management stood at EUR 10.3 billion, which was a slight increase compared with the preceding year.

<sup>238</sup> 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 (Official Gazette of the Republic of Slovenia [*Uradni list RS*], No. 53/2015).

<sup>239</sup> Change in the portfolio structure due to the divestment of two banks (NLB d.d. and Abanka d.d.), which accounted for about one-fifth of the portfolio and paid out high dividends and achieved high ROE over the last two years.

<sup>240</sup> Dividends for the current year are paid out with a one-year delay. The economic consequences of the epidemic in 2020 also affected dividend payments for 2019.

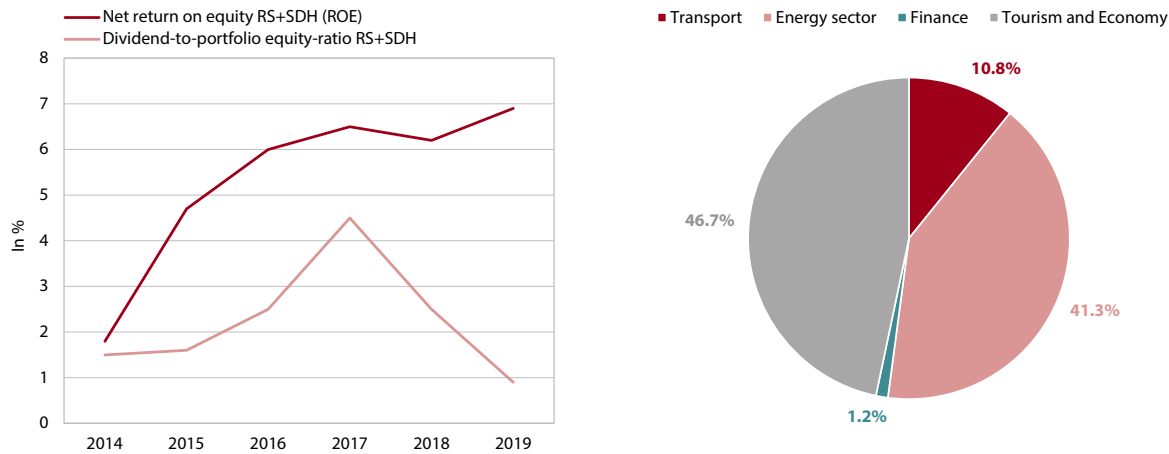
<sup>241</sup> Only the divestment of a minority stake in a venture capital company (Meta Ingenium) was of a higher value.

<sup>242</sup> From this list, which had been confirmed by the government in 2013, the SSH has so far sold equity stakes in the companies Adria Airways,

<sup>236</sup> The last major amendment to the Labour Relations Act, which significantly reduced the employment protection index, came into force in 2013 (IMAD, 2014).



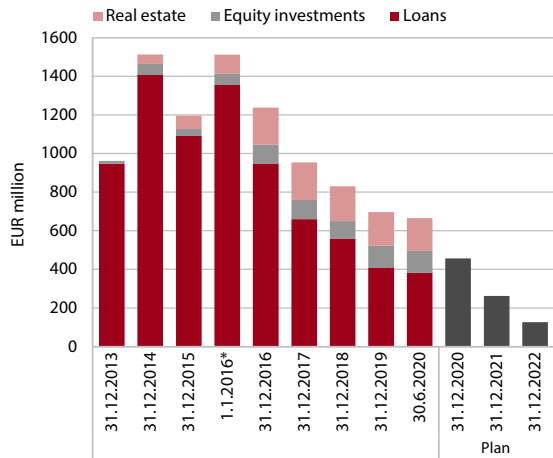
Figure 56: Indices of return (left) and structure of dividend payments for 2019, share (right)



Sources: SSH, 2020a; SSH, 2021.

while privatisation procedures for the remaining five are currently suspended.<sup>243</sup> The withdrawal of the state from company ownership also takes place through the BAMC,<sup>244</sup> which must complete its operations by the end of 2022. The assets under the BAMC management amounted to EUR 696.8 million as at the end of 2019 and decreased by less than 5% by mid-2020 (to EUR 665.4 million). At the end of June 2020, claims from non-performing loans accounted for 57.3% of the BAMC assets, real estate for 25.4% and equity investments for 17.3%. The bulk of decrease over recent years represents claims from non-performing loans, while, contrary to the BAMC business strategy 2016–2022, the value of equity investments even increased over the last two years<sup>245</sup> (BAMC, 2020a and 2020b). In the first half of 2020, the BAMC has been lagging behind (the initially planned and revised) reduction in terms of the value of assets under its management.

Figure 57: Assets under the BAMC management and portfolio plan by the end of 2022



Source: BAMC, 2020a and 2020b. Notes: On 1 January 2016, the value of the portfolio increased after the merger by acquisition of Factor banka and Probanka with the BAMC. Under the transaction, the BAMC also received a small leasing portfolio that is included among the loans. In 2019, the asset reduction plan for 2019–2022 was amended for failing to achieve the goals.

Adria Airways Tehnika, Aerodrom Ljubljana, Cimos, Elan, Fotona, Helios, Nova KBM, Paloma and Žito.

<sup>243</sup> Three more companies (Cinkarna Celje, Gospodarsko razstavišče and Telekom Slovenija) remain to be privatised, while two (Aero and Terme Olimia bazeni) no longer exist.

<sup>244</sup> The state withdraws from company ownership through the BAMC by selling receivables or non-performing loans to companies, by selling real estate which the BAMC took possession of in the bank recovery process and by selling equity stakes in companies.

<sup>245</sup> In 2019, the asset reduction plan was supplemented and the reduction is planned to be more gradual than originally planned and is expected to be delayed beyond 2022. The figure for 2020 is an estimate based on available data for the first half of the year (BAMC, 2020b; BAMC, 2019).

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 freedoms 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 value		Target value for 2030
	Slovenia	EU average	
Rule of law index, ranking among EU Member States	Rank 13 (data for 20 EU Member States) (2019)	–	Ranking in the top half of EU Member States
Estimated time to resolve civil and commercial court cases, number of days	283 (2018)	250 (2018)	200

**Trust in the rule of law and the judiciary is at a relatively low level but is slowly improving.** The bedrock of people’s trust in the legal order and respect for 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 implementation of rights in practice, the duration of administrative and court proceedings, accessibility to legal remedies, and the predictability and stability of legal standards. International comparisons (WJP, 2020; WGI, 2020) suggest that trust in the judiciary has slightly improved in Slovenia over recent years, but it still ranks relatively poorly, similarly as the trust in the rule of law (see Indicator 5.3). Despite some positive developments, trust in the independence of courts and judges continues to be low and to rank lower than in other EU Member States. Surveys point to the perceived influence of politics on court decisions as the main reason, and interference or pressures on the courts due to economic or other special interests are among the highest in the EU (EC, 2020c). However, the number of applications lodged before the European Court of Human Rights (ECHR) and the violations found have substantially decreased, and both indicators have no longer deviated from the EU average in recent years. The COVID-19 epidemic posed a new challenge in the area of human rights in 2020, as basic freedoms such as freedom of movement, assembly or business initiatives have been restricted in many EU Member States (EC, 2020e). In Slovenia, the Constitutional Court of Slovenia imposed on the Government the obligation to regularly (periodically) review and adjust measures that must be proportionate and limited in time (Constitutional Court, 2020).

**The main priorities set for the judiciary in recent years were improving the effectiveness, transparency and quality of the justice system.** In implementing the

Justice 2020 Strategy, one of the principal challenges was to create a predictable and stable legal environment. In this regard, the Supreme Court has been drawing attention to the increasing of competences and the adopting of insufficiently considered measures by the legislative branch of power, which should also be aligned with the judicial branch (Supreme Court, 2020 and 2021). Significant progress was made in recent years in terms of increasing efficiency and reducing employment; however, some of the goals set by the justice strategy were not attained by the end of 2020. There was a considerable delay in attaining the goals related to the expected time for resolving major cases, and the ratio between the number of court staff and judges remained too low.<sup>246</sup>

**The COVID-19 epidemic discontinued a several year trend of increasing court efficiency.** Court statistics suggest that in 2014–2019, the number of pending cases in almost all courts continued to decrease annually, and the courts, despite a decrease in the number of judges and court staff, generally resolved more pending cases than the new caseload. The average time taken to resolve all cases has been shortened considerably, but the time required for adjudication of major cases did not significantly change in recent years (see Indicator 5.4). In 2020, due to containment measures during the epidemic, the courts’ operations were limited, <sup>247</sup>

<sup>246</sup>The strategy pursues the goals that by 2020, the expected time for resolving major cases should be reduced to six months (the goal was not reached as the average length of proceedings is now eight months) and for other cases to three months (this goal was achieved). The number of judges per 100,000 inhabitants should have decreased as well (to 42 judges; it decreased to 42.2 judges in 2020), while the proportion between the number of court staff and judges should have increased to 4.3 (it increased to 3.7 judges in 2020) (Ministry of Justice, 2012; Supreme Court, 2021).

<sup>247</sup>The courts’ operations were limited for a period of five months in 2020.

which also had a significant impact on the efficiency of the judiciary, as for the first time in several years, they resolved fewer cases than they received.<sup>248</sup> With a lower new caseload, the number of resolved cases decreased by around 13%, while the number of pending cases at the end of the year increased by 7.6% compared to the previous year (Supreme Court, 2021). While the limited operations of the courts did not significantly affect the length of time for resolving cases, the Supreme Court continues to point out that excessive shortening of the length of proceedings may jeopardise the parties' right to be heard and to have a fair trial. Compared to other EU Member States, the expected length of litigation and commercial proceedings at first instance is longer and has even increased in recent years (EC, 2020d). This is to be attributed to the increased number of more complex proceedings and the new competences conferred on the courts through legal amendments in recent years.<sup>249</sup> Personal bankruptcy proceedings and bankruptcy proceedings against a legal entity remain lengthy,<sup>250</sup> because these cases are conducted before the court as pending until the bankruptcy proceedings are completed; the court has no direct influence over the course of the proceedings once the ruling on the initiation of bankruptcy proceedings is issued. The EC (2020e) draws particular attention to the length of proceedings relating to commercial and financial crime (e.g. money laundering).

**The quality of the Slovenian judiciary is comparable with other EU Member States.** This includes, in the strict sense,<sup>251</sup> the quality of court decisions and, in the broader sense, the provision of judicial services. Since 2016, a project to improve the quality of the judiciary has been implemented by the Supreme Court; this has so far focused on judicial skills, transfer of knowledge, and the activities of training and improving the competences of judges and court staff (Supreme Court, 2020). The EC study shows that information and communication technologies for managing cases at courts are highly developed<sup>252</sup> and that compared to other countries, Slovenia has very well-regulated monitoring and evaluation of court activities and the use of transparent standards of efficiency (EC, 2020c and 2020e). Within the framework of the Procedural Justice project, a comprehensive communication system has been established; this enables users to obtain the information they need in a simple and comprehensible language. The system is intended for anyone who contacts a

court. However, electronic communication with parties (e.g. electronic filing, service of summons to the court or monitoring the stages of proceedings) is less well regulated. Comprehensive regulation of electronic services in the judiciary remains one of the priority tasks of the Supreme Court, which is reflected in the progress of communication with parties in some areas (e.g. recovery of uncontested debt, insolvency proceedings and land-registry proceedings) (Supreme Court, 2021). During the epidemic, access to videoconferencing of court proceedings was also provided and a dedicated portal for judges and court staff (including access to the support system to panel sessions and similar) was set up.

**The perception of corruption has not changed significantly in recent years and has remained relatively high.** The estimated (perceived) level of corruption reflects the performance of institutions of the rule of law, public sector integrity and the quality of public sector governance. International comparisons (Transparency International, World Governance Indicators, Eurobarometer) indicate that the perceived level of corruption remains high and above the EU average (see Indicator 5.5), which is also reflected in the lack of public trust in the work of the authorities. The majority of respondents believe that corruption is widespread in Slovenia,<sup>253</sup> but at the same time they have not experienced it. This is largely due to the fact that respondents are of the opinion that high-profile and major cases of corruption are not properly sanctioned (Eurobarometer, 2020b).<sup>254</sup> In recent years, a number of measures have been adopted to improve the integrity of institutions, public employees and high officials and to increase the transparency of public sector operations (MJU, 2020a),<sup>255</sup> which also contributed to an increase in the number of reported corruption cases in 2019 (CPC, 2020). The Act Amending the Integrity and Prevention of Corruption Act (ZIntPK) was adopted; it should provide, inter alia, tools for more effective work of the CPC (e.g. supervision of lobbying, regulation of the legal basis for the operation of the Erar application, clear and specific regulation of procedures applying to participants appearing before the CPC, and extending the supervision of assets) and delimit the competences of police and authorities for the prosecution of criminal offences of corruption (ZIntPK-C, 2020). In this respect, the EC and the CPC stress the need to ensure adequate financial and human resources (EC, 2020e) to effectively implement additional tasks and responsibilities (EC, 2020e; CPC, 2021).

<sup>248</sup> Reduced handling of caseload was particularly noticeable in respect of more important cases at local, labour and social courts. In total, however, the courts managed to resolve 99% of the caseload.

<sup>249</sup> For example, the beginning of application of the Family Code in 2019, Amendments E to the Civil Procedure Act in 2017, the Non-Contentious Civil Procedure Act in 2019, amendments to criminal law, new competences of administrative justice, etc.

<sup>250</sup> Other liquidation procedures are much shorter (e.g. compulsory liquidation and simplified compulsory settlement).

<sup>251</sup> Appropriate structure, procedures, the merits of the judgement and the legal bases used, etc.

<sup>252</sup> The data are standardised, integrated using data storage tools and centralised.

<sup>253</sup> 87% of respondents and 90% of the companies surveyed said that corruption is widespread in Slovenia.

<sup>254</sup> Slovenia has the highest percentage of respondents who believe that law enforcement is not successful enough to discourage people from engaging in corrupt practices (72%).

<sup>255</sup> Of a total of 25 measures, 18 were fully implemented and four were partially implemented (extensive activities for their implementation have already been undertaken), while three measures were not implemented (MJU, 2020a).

### 5.3 A safe and globally responsible Slovenia

#### A safe and globally responsible Slovenia (Development Goal 11

The goal is to address global challenges that Slovenia is facing, such as migration flows, terrorism, climate change and 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 for people, which includes both providing protection against terrorist and other supranational threats (cyber threats included) and promoting prevention and strengthening the capacities for managing natural and other disasters. The SDS 2030 also emphasises the increasing of foreign policy cooperation at the bilateral and multilateral levels and strengthening 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 value		Target value for 2030
	Slovenia	EU average	
Share of population that reported crime, vandalism or violence in their area, in %	8.0 (2019)	11.0 (2019)	< 10
Global Peace Index, Rank	5 (in the EU) (2020) 11 (163) (2020)	–	Ranking among the top five countries in the EU or among the top ten in the world

Since its independence, Slovenia has been a member of the most important international organisations that provide 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 and a half, Slovenia has also been a member of the EU, which is our most important political and legal environment. Changes in the broader international environment affect both the EU and Slovenia, the two grappling not just with important developmental, political and economic issues, but also with global security challenges. The fundamental framework of institutional national security aside from the EU’s common foreign and defence policy is NATO.

#### 5.3.1 Safety

Slovenia is one of the safest and most peaceful countries in the world. The Global Peace Index shows that Slovenia ranked among the most peaceful countries in the world over the past decade, with the EU being the most peaceful region (see Indicator 5.7). The number of criminal offences in 2019 was the lowest over the past ten years, with a decrease in general, economic and juvenile crime though an increase in organised crime.<sup>256</sup> In the first half of 2020, the trend in the number of crimes was

at the level of the previous three years; in comparison with 2019, general crime increased most.<sup>257</sup> This was mainly due to the growth in the number of criminal threats and domestic violence, which is also an indirect consequence of restrictive measures adopted during the first wave of the COVID-19 epidemic.<sup>258</sup> In 2020, the number of criminal offences involving domestic violence (see Section 3.2) was the highest in the last five years, and the number of murders also increased compared to the previous year (Police, 2021). In 2016, the standardised death rate due to assault in Slovenia was lower than in the previous five years and equalled that in the EU (0.7 per 100.000 inhabitants), but in 2017 (the latest available data) it rose to 1.1 (Eurostat, 2021). In 2018, the EU General Data Protection Regulation (GDPR) entered into force, strengthening and extending the protection of the rights of individuals with regard to their personal data, in particular in terms of information security, and Slovenia is the only EU Member State that has not yet transposed this regulation into its legal order nor adopted the relevant legislation.<sup>259</sup>

**Slovenians felt safe in the country over recent years.** According to the latest Eurobarometer survey (in 2017), Slovenians considered that their immediate

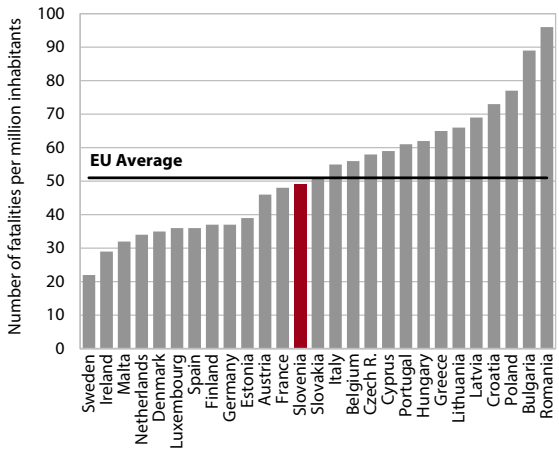
<sup>256</sup> Organised crime accounts for the smallest percentage of total crime (2019: 1.5%) (Police, 2020a).

<sup>257</sup> Data for the first half of 2020 are compared with the data for the first half of previous years. In comparison with 2019, the number of economic criminal offences decreased the most (Police, 2020b).  
<sup>258</sup> See Police, 2020c; Plesničar, Drobnjak and Filipčič, 2020; NIJZ, 2020.  
<sup>259</sup> The Regulation became directly applicable in May 2018. It should be noted that the national data protection authority in Slovenia was established on the basis of the applicable national data protection legislation and supervises the application of the Regulation (EC, 2020i).

neighbourhoods and indeed Slovenia as a whole are safe places to live in. The sense of personal endangerment of the population in their living environment has remained low at all times (see Indicator 5.6). In 2018, 11% of those surveyed had a personal experience of burglary or physical assault, which is similar to previous years and less than in the EU as a whole.<sup>260</sup> The sense of safety also depends on people’s trust in the police, which was significantly higher in recent years than trust in other institutions in the country, though it still remained below the EU average in 2020<sup>261</sup> (Eurobarometer, 2020a and 2020c).

**In 2020, the number of fatalities due to traffic accidents was the lowest since traffic safety records began to be kept.** Traffic safety has improved considerably since 2010. There are several factors behind the improvement, including better transport infrastructure (e.g. motorway construction), safer cars and traffic preventive measures (e.g. the reduction of permitted blood alcohol level and the education of young drivers). It should be noted that in 2000–2017, the volume of traffic increased by more than 60% (OECD, 2019b). In 2019, Slovenia recorded 49 deaths per million inhabitants as a result of traffic accidents, which is slightly less than the EU average (51 per million inhabitants).<sup>262</sup> In Slovenia, the number of fatalities from traffic accidents decreased by 25% in 2010–2019 (in the EU by 23%) and is much lower than before 2010.<sup>263</sup> In 2019, 102 persons died in traffic accidents; in 2020, the number of fatalities fell to 80 (Slovenian Traffic Safety Agency (AVP), 2021). This reduction in fatalities was also due to the restrictive measures adopted to curb the spread of COVID-19, which resulted in less traffic. In April 2020, the volume of traffic in Slovenia compared to the previous year was lower by 54% and the number of fatalities by 11%; December 2020 was the first month without traffic fatalities in the history of Slovenia (AVP, 2021).<sup>264</sup>

**Figure 58: Number of fatalities in road traffic per million inhabitants by EU Member States, 2019**



Source: EC, 2020h.

**Natural and other disasters are among the constant sources of threat in Slovenia.** The goals, policies and strategy for the protection against natural and other disasters in the country are set out in the national programme for 2016–2022, which was adopted in 2016.<sup>265</sup> In 2019, the Administration of the Republic of Slovenia for Civil Protection and Disaster Relief took action in 17,248 incidents<sup>266</sup> in which, in addition to other services, protection, relief and rescue personnel were engaged. In 2018, the number of incidents decreased, following a few years of increase, but it increased again in 2019, mainly due to an increase in fires and explosions and incidents where technical and other assistance was required. Compared to previous years, the number of interventions in natural disasters fell sharply in 2019. There were fewer incidences of flood, strong wind and snow, which generally cause the most problems and trigger most interventions in terms of natural events. Timely emergency response is ensured through emergency notification centres and public rescue services and by the preparedness of other rescue services, commissions, 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 (logistic and technical support to ensure the functioning of healthcare in an epidemic situation, care for the most vulnerable groups of the population).<sup>267</sup>

<sup>260</sup> Since 2008, the percentage of respondents who personally experienced a burglary or physical assault ranged between 9% and 11% (CJMMK, 2018). The chart for a group of 23 European countries (15%) shows the total average result of the selected countries regardless of the size of the national samples or the size of the country (ESF, 2021).

<sup>261</sup> In summer 2020, 67% of Slovenians trusted the police (in the EU, 71% of the population), which is slightly more than in the previous two years.

<sup>262</sup> The figures for the EU do not include the United Kingdom, which, due to the relatively good results of the UK in road safety, means a higher percentage of fatalities per million inhabitants in the EU (with the UK included, the number of fatalities per million inhabitants in the EU would be 48 instead of the current 51 in 2019 and 63 instead of 67 in 2010) (EC, 2020g).

<sup>263</sup> 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, 2020 g).

<sup>264</sup> The same applies to most EU Member States, but in some countries the number of fatalities (e.g. as a result of an increase in average speed) did not decrease in proportion to the decline in traffic (OECD, 2020c).

<sup>265</sup> Resolution on the National Programme for Protection against Natural and Other Disasters 2016–2022, 2016.

<sup>266</sup> These are natural and other disasters, traffic accidents, fires and explosions, pollution incidents, accidents 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 (MO, 2020a).

<sup>267</sup> In April 2020, between 3,000 and 6,000 members of the protection and rescue forces were engaged on a daily basis at the national, regional and municipal levels (MO, 2020b); as at 31 December 2020, 1,196 members of the protection, rescue and relief forces, representatives of public services and 106 members of humanitarian organisations were



The occurrence of an infectious disease in humans was identified as one of the major risks in Slovenia in the disaster risk assessment process in 2015–2018. In the light of the actual 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. The risks in Slovenia also include earthquakes, aircraft accidents, terrorism, glaze ice and nuclear accidents, with flooding posing the greatest risk, which led to the adoption of a new National Plan for Flood Protection and Rescue in 2019 (URSZR, 2021a). 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 accidents. In this regard, preventive measures are an important factor, in particular in spatial planning and management and in protection against fire and other natural disasters<sup>268</sup>.

**Regarding national security, activities are primarily focused on ensuring the security of the EU's national and external borders, 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, which increasingly links migration to other forms of crime (organised crime, including terrorism). The number of illegal border-crossings increased between 2015 and 2019, mainly due to increased migration flows from areas affected by crisis. Compared to the previous year, the number decreased slightly in 2020 but remains higher than in 2018.<sup>269</sup> This was influenced by national actions at the European level, as transport communications were virtually cut off in March and April and countries significantly tightened controls at their borders and inland (Police, 2020b). In the first half of 2020, there was also less organised crime, which had increased significantly in 2018 and 2019; the criminal offences of illicit border crossings or national territory crossings prevailed, as well as the criminal offences of illicit drugs and prohibited substances in sport.<sup>270</sup> In the first half of 2020, there was slightly less cybercrime compared to

2019,<sup>271</sup> while the number of weapons-related<sup>272</sup> criminal offences remained at the same level. Investigating cybercrime remains an important challenge, as the increasing use of internet services for anonymisation of criminals, the growing number of digital traces leading abroad and the increasingly difficult international acquisition of data (also due to greater communication privacy and personal data protection) make it ever more difficult to discover the perpetrators (Police, 2019). With modern technologies, new ways of committing cybercrime (the use and theft of cryptocurrencies) have been emerging. In the field of terrorism, Slovenia has focused on preventive action (Police, 2020a).

### 5.3.2 Global responsibility

**Slovenia strives to improve global responsibility and solidarity.**<sup>273</sup> It has joined international efforts to combat the consequences of the SARS-CoV-2 epidemic in 2020. It fully implements international commitments, including financial commitments and the harmonisation of the domestic legal order, and meets international commitments on climate change and sustainable development (see Section 4). Slovenia remains among the most successful countries in achieving the 2030 Sustainable Development Goals (Sachs et al., 2020).<sup>274</sup>

**Slovenia has been involved in geopolitical and geo-economic processes that have been changing the international community in recent years, though it is a small country.** As such, it is in its interest to preserve and promote multilateralism and to fully respect international law and its development into new areas requiring international regulation (MZZ, 2015; MZZ, 2020a). In recent years, it has strengthened its network of diplomatic and consular missions<sup>275</sup> and its activities in international organisations and other forums, including by maintaining its contribution to international operations and missions, where it ranks among the partners undertaking an above-average operational burden. Despite good economic cooperation, there is a lack of progress in relations with Croatia, mainly due to outstanding issues following the dissolution of the former federal state (MZZ, 2020a). In 2020, a bilateral political dialogue with the US was re-launched at the highest level and cooperation with Central European countries was deepened to coordinate the measures to

engaged (URSZR, 2021b).

<sup>268</sup> Slovenia will also address these challenges by using EU funds, in particular for the 5<sup>th</sup> and 6<sup>th</sup> priority axes of the Operational Programme for the Implementation of EU Cohesion Policy (Adaptation to Climate Change and Better State of the Environment and Biodiversity).

<sup>269</sup> In 2015, a total of 437 illegal crossings of the national border were dealt with (this figure does not include the migrants who entered Slovenia during the period of mass migrations (around 360,000 persons); in 2018, this figure was 9,262 (IMAD, 2020b). In 2019, 16,252 illegal border-crossings were dealt with; in 2020, the number decreased to around 14,600 (most citizens of Pakistan, Afghanistan and Morocco) (Police, 2021).

<sup>270</sup> In 2015, the number of cases of organised crime totalled 406, in 2018 595 and in 2019 809 (Police, 2020a). The number of cases of organised crime totalled 402 in the first half of 2019 and 166 in the first half of 2020 (Police, 2020b).

<sup>271</sup> In comparison with the year before, the number of cybercrime offences considerably increased in 2016, mainly because of an increase in attacks on the information system (Police, 2020a).

<sup>272</sup> The number of weapons-related crimes also increased considerably in 2018, following a decrease in the previous years, and then sharply declined again in 2019 (Police, 2020a).

<sup>273</sup> SVRK, 2017.

<sup>274</sup> Slovenia ranks 12<sup>th</sup> among 166 countries and has been rated best in terms of eradicating extreme forms of poverty and promoting a peaceful and open society for sustainable development.

<sup>275</sup> Since 2017, Slovenia has opened embassies in Bulgaria, Iran and the United Arab Emirates. It now has 55 diplomatic and consular missions abroad.



curb the spread of the COVID-19 epidemic, with a focus on the cross-border movement of persons, goods and services. From 1 June 2020 to 31 May 2021, Slovenia is chairing the Adriatic and Ionian Initiative and the EU Strategy for the Adriatic and Ionian Region (EUSAIR), where green integration is the main theme.<sup>276</sup>

**The new ambition for an increased global role of the EU, alongside the internal challenges of individual Member States and the EU as a whole, represents an opportunity for a new positioning of Slovenia in the integration.** At a time of new geopolitical and geo-economic changes, the continuing effects of the global financial crisis of a decade ago, socio-economic difficulties and growing populism in the Member States, the EU is ambitiously committed to overcoming the consequences of the COVID-19 epidemic and to establish for itself a stronger global role. Part of this is the process of defining the EU's strategic culture, where in the context of the so-called "Strategic Compass", the identification of threats and a strategic dialogue with Member States will take place in 2021 and 2022 (EEAS, 2016; Council of the EU, 2020; EEAS, 2021). At the same time, the "Conference on the Future of the EU" will also be held in 2021. Slovenia's Presidency of the Council of the EU in the second half of 2021 is an opportunity for Slovenia to pay special attention also to these two processes through greater involvement in decision-making processes than before and with an increased number of staff for the purpose of the Presidency. The priority areas and directions for EU action have also been outlined by the adoption of the new multiannual financial framework. In light of the above, the creation of the "NextGenerationEU" recovery instrument was important; this, in addition to overcoming the effects of the epidemic, is also a roadmap for investments and structural reforms to build a more modern and sustainable EU economy (EC, 2020a and 2020f).

**Slovenia's Presidency of the Council of the EU is the central government project in 2021.** With the change of government in 2020, preparations for the Presidency were stalled for a short period of time and the global epidemic created additional challenges in terms of implementing the programme under the conditions of the health crisis, adapting priority areas, and organisational and staffing preparations. In accordance with the Tria<sup>277</sup> programme, the main priority of the Slovenian Presidency will be to tackle the epidemic and its consequences. Priority areas to be worked on will include the green and digital transition in the European Union, the rule of law, the strengthening of the EU's

strategic autonomy and the response to cyber-attacks (MZZ, 2020c). The main post-presidency challenge will be to maintain a higher level of attention focused on decision-making processes within the EU, as this requires in-depth action in the field of EU affairs, closer coordination within the state administration and staff strengthening (Barbutovski, Bucik and Lange, 2017).

**Expenditure on official development assistance (ODA) remains significantly below the internationally agreed commitments.** International development cooperation and humanitarian aid are important components of global responsibility and contribute to the strengthening of Slovenia's bilateral relations and visibility in the world (Mrak, Bučar and Kamnar, 2007). ODA expenditure increased in the last decade<sup>278</sup>, but it still remains well below the internationally agreed commitments<sup>279</sup> imposing on Slovenia the obligation to strive towards increasing official development assistance to 0.33% of GNI by 2030 (MZZ, 2020b). With the increase in ODA, the available bilateral development assistance, which Slovenia provides to priority geographical areas and substantive areas, is increasing proportionately at the fastest rate, whereas the majority of such assistance (about two-thirds) continues to be multilateral aid in support of EU development policies (see Indicator 5.8). The OECD (2017) states that Slovenia's main challenges in international development assistance include narrowing its focus to just a few priority regions and hence improving the effectiveness of assistance, improving cooperation with and providing information to stakeholders in Slovenia, and forging long-term partnerships with prospective assistance donors. In line with the OECD recommendations and the implementation of the 2030 Agenda, a new strategy up to 2030 was adopted in 2018; this established a framework for strengthening bilateral development cooperation and determined orientations for action at a multilateral level (MZZ, 2018). An important step forward<sup>280</sup> in 2020 was the re-allocation of bilateral assistance to partner countries to combat the epidemic (OECD, 2020d).

<sup>276</sup> The aim is to improve the quality of life on the coast by the shared sea through concrete arrangements and implementation of regimes based on the consideration of coastal and marine ecosystems in the Adriatic and Ionian region.

<sup>277</sup> Taking forward the Strategic Agenda 18-month Programme of the Council (1 July 2020–31 December 2021), Brussels, 9 June 2020, 8086/1/20, <https://www.eu2020.de/blob/2354332/d2f4bc33ade0af634ae79552060d6332/06-19-pdf-trioprogramme-en-data.pdf>.

<sup>278</sup> The share of ODA expenditure increased from 0.13% to 0.16% of GNP in the period since 2010 and by around 70% in nominal terms (in 2019 by 9.4%, compared to the previous year, to EUR 77.5 million).

<sup>279</sup> The Resolution on International Development Cooperation and Humanitarian Assistance of the Republic of Slovenia, 2017.

<sup>280</sup> In line with the OECD recommendations, Slovenia has also increased the share of bilateral assistance to priority partner countries; the share of assistance to the ten main partner countries increased from around 50% in 2015 to more than 70% in 2019.



# **Appendix: Indicators of Slovenia's development**



# 1 A highly productive economy that generates value added for all

## Economic stability

- 1.1 Gross domestic product per capita in purchasing power standards
- 1.2 Real GDP growth
- 1.3 General government debt
- 1.4 Fiscal balance
- 1.5 Current account of the balance of payments and net financial position of Slovenia towards the rest of the world
- 1.6 Financial stability
- 1.7 Financial system development
- 1.8 Regional variation in GDP per capita

## A competitive and socially responsible business and research sector

- 1.9 The European Innovation Index
- 1.10 Productivity
- 1.11 The Digital Economy and Society Index
- 1.12 Export market share
- 1.13 Real unit labour costs
- 1.14 Exports of high-tech products and knowledge-intensive services
- 1.15 Foreign direct investment
- 1.16 R&D expenditure and the number of researchers
- 1.17 Innovation activity of enterprises
- 1.18 Intellectual property
- 1.19 Corporate environmental responsibility





Gross domestic product per capita in purchasing power standards

1.1

Slovenia continued to reduce the economic development gap with the EU average in 2019, measured in gross domestic product per capita in purchasing power standards (PPS), though it remained higher than in 2008. At 27.700 PPS, it reached 89% of the EU average, which is 2 p.p. above the value reached in the previous year and 2 p.p. below the highest value achieved before the onset of the global financial crisis in 2008. The decomposition of GDP per capita to productivity and employment rates shows that reducing the economic development gap with the EU average, which has been happening since 2016, was driven mainly by a relatively fast increase in employment rates relative to the EU and, to a lesser extent, by productivity growth. The employment rate in Slovenia was above the EU average every year and exceeded it by 7% in 2019. However, productivity remained relatively low (83% of the EU average in 2019), and the gap in this area thus fully explains the relatively low level of economic development of Slovenia as measured by the GDP per capita indicator.

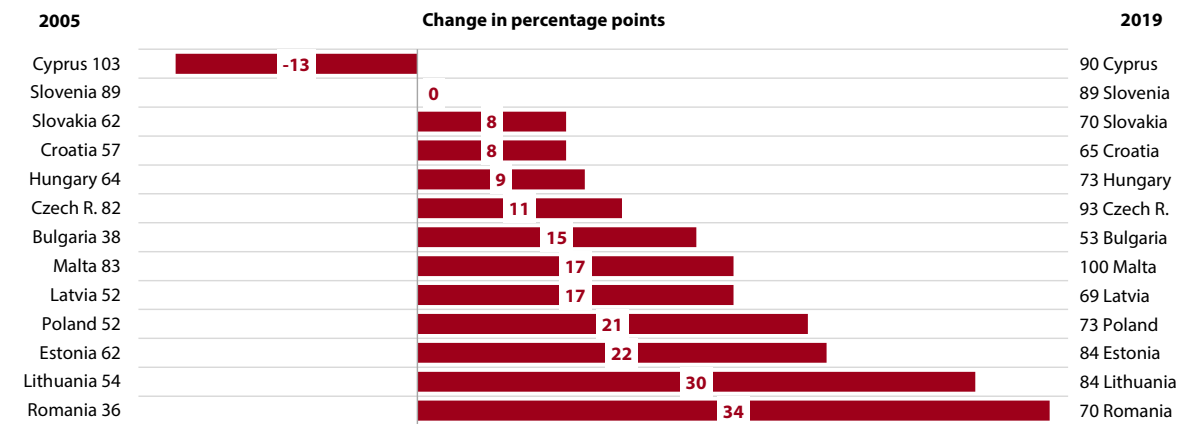
Slovenia's position in terms of the average level of development of the EU remained the same in 2019 as it was in 2005, while the majority of the new EU Member States made considerable progress in this period. Compared to 2005, 14 Member States improved their position relative to the EU average, most notably Ireland (by 43 p.p.), and all the other new Member States except Cyprus and Slovenia. Eleven Member States deviated from the EU average during this period, most notably Greece (28 p.p.). In 2008, Greece (95%) and the Czech Republic (86%) were closest to Slovenia in terms of GDP per capita in PPS; in 2019 it was Cyprus (90%) and Spain (91%). In 2019, compared to the previous year, 14 EU Member States improved their development position relative to the EU average, the most Romania (4 p.p.), while four Member States kept the same position and nine worsened their positions, most notably Germany (3 p.p.). Luxembourg still exceeds the EU average by 160%, followed by Ireland, by 193% of the EU average. The gap in the GDP per capita indicator in PPS between the EU Member States, which in 2000 was at 1:9.8 (Romania/Luxembourg), has been narrowing over the years, falling to 1:4.9 in 2019 (Bulgaria/Luxembourg).

Table: GDP per capita in purchasing power standards for selected countries (EU=100)

	2000	2005	2008	2011	2012	2013	2014	2015	2016	2017	2018	2019	SDS 2030 target
Slovenia	81	89	91	84	83	83	83	83	84	86	87	89	100
Scandinavian countries	132	128	131	128	128	128	126	125	123	123	123	122	
New Member States without Slovenia	52	62	68	69	70	71	72	72	73	74	76	77	
Austria*	133	130	127	129	133	133	132	131	130	127	128	126	
Italy*	122	112	108	105	103	100	98	97	98	98	97	96	
Germany*	124	120	118	124	124	125	127	125	125	124	123	120	

Source: Eurostat, 2020; calculations by IMAD.  
Note: \* three economically more developed countries with which Slovenia has strong economic ties.

Figure: Comparison of approaching the EU average by GDP per capita in PPS from 2005 to 2019 for new EU Member States, in percentage points (EU=100)



Source: Eurostat, 2020; calculations by IMAD.

# Real GDP growth

# 1.2

In 2020, gross domestic product fell sharply, following six years of solid growth, due to the COVID-19 epidemic. Following a decline during the global financial crisis, real GDP had been growing since 2014. Economic growth was increasing over the period 2014–2017 and then began to slow down. The slowdown was largely due to weaker economic growth in trading partners and uncertainties in terms of international trade and political relations. In 2020, all GDP components declined due to the COVID-19 epidemic and the associated constraints, with the exception of government expenditure, which strengthened as a result of the epidemic-related measures. Due to restricted movement and limited supply during the quarantine period, when spending opportunities were severely curtailed, and due to increased uncertainty and precautionary and forced savings, private consumption fell sharply, although disposable income did not change much, backed by government support measures. These measures also prevented a significant fall in employment. Due to negative impacts from the international environment and foreign and domestic containment measures, exports and imports fell sharply,

particularly in the spring. Fall in demand and increased uncertainty led to a contraction in corporate investment, both in buildings and in equipment and machinery, while public investment slightly strengthened.

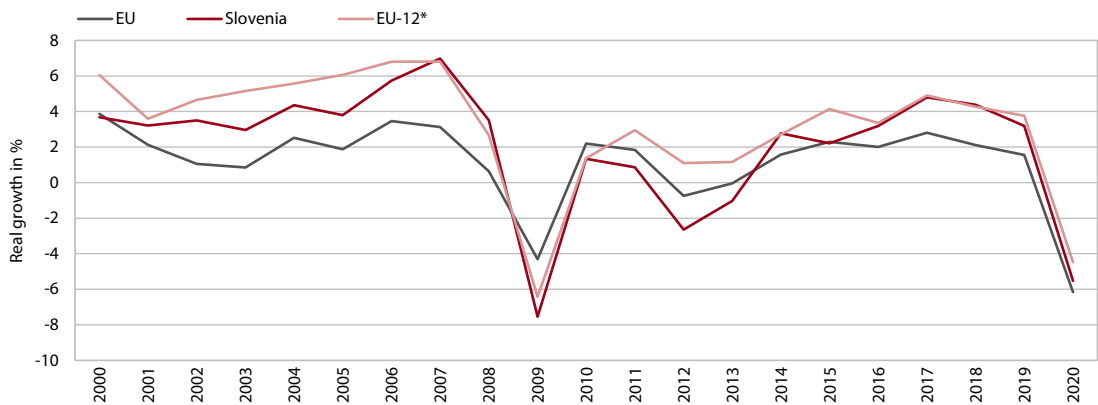
**After years of higher growth, in 2020 real GDP declined less than the EU average.** After a sharp fall during the global financial crisis, economic activity in Slovenia had grown faster than the EU average since 2014 and declined less in 2020 (Slovenia: -5.5%; EU: -6.2%), so Slovenia remains on a path of real convergence (i.e. approaching the EU average GDP per capita). The smaller fall in GDP in 2020 than the EU average predominantly resulted from the foreign trade balance, which was slightly positive in Slovenia and negative in terms of the EU average, and from a smaller fall in gross fixed capital formation, while the fall in private consumption was greater in Slovenia. However, the decline of economic activity in Slovenia was larger and the growth in recent years was slower than the average<sup>1</sup> in other new EU Member States, which Slovenia has been lagging behind by 17 p.p. since 2005 in terms of cumulative growth.

Table: Contribution of expenditure components to GDP change, Slovenia

	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Real GDP growth, in %	3.7	3.8	3.5	-7.5	1.3	0.9	-2.6	-1.0	2.8	2.2	3.2	4.8	4.4	3.2	-5.5
Contribution to GDP growth, in p.p.															
Total domestic consumption	1.3	1.7	3.5	-9.1	-0.8	-0.2	-5.4	-1.8	1.2	1.6	2.8	3.6	4.5	3.1	-6.0
Private consumption	-0.1	1.1	1.5	1.1	0.5	0.4	-1.2	-2.3	0.9	1.1	2.4	1.0	1.9	2.5	-5.1
Government expenditure	0.7	0.5	0.9	0.4	0.0	0.0	-0.5	-0.4	0.0	0.4	0.5	0.1	0.5	0.3	0.3
Gross fixed capital formation	0.7	0.9	2.0	-6.5	-3.2	-1.0	-1.7	0.7	0.0	-0.2	-0.7	1.8	1.8	1.1	-0.8
Changes in inventories	0.1	-0.9	-0.8	-4.1	1.9	0.4	-2.0	0.2	0.3	0.3	0.6	0.7	0.3	-0.8	-0.4
External balance of goods and services	2.3	2.1	0.0	1.6	2.1	1.1	2.8	0.8	1.6	0.6	0.4	1.2	-0.1	0.1	0.4
Exports of goods and services	5.6	6.3	2.8	-11.0	5.8	4.4	0.3	2.2	4.5	3.6	4.8	8.6	5.2	3.5	-7.3
Imports of goods and services	-3.2	-4.1	-2.8	12.6	-3.7	-3.4	2.4	-1.5	-2.9	-3.0	-4.3	-7.4	-5.3	-3.4	7.7

Source: SURS, 2021.

Figure: Gross domestic product growth



Source: Eurostat, 2021.

Note: \* Data for the EU-12 represent an unweighted average for countries that joined the EU in 2004 or later, except for Slovenia, which is shown separately.

<sup>1</sup> This is unweighted average.

General government debt

1.3

**General government debt increased sharply in 2020 after several years of decrease.** Debt decreased by 17 p.p. in 2015–2019 during a period of economic growth and fiscal balance measures, with the debt decrease among EU Member States higher only in Ireland. The decrease also exceeded the requirements stemming from fiscal rules.<sup>1</sup> The sharp economic downturn in 2020, which caused a decline in revenue and whose consequences were mitigated by the government through generous measures to offset the effects of the epidemic, contributed to a significant deterioration of the primary balance (interest-free balance) and thus the general government debt (to 80.8% of GDP). The increase

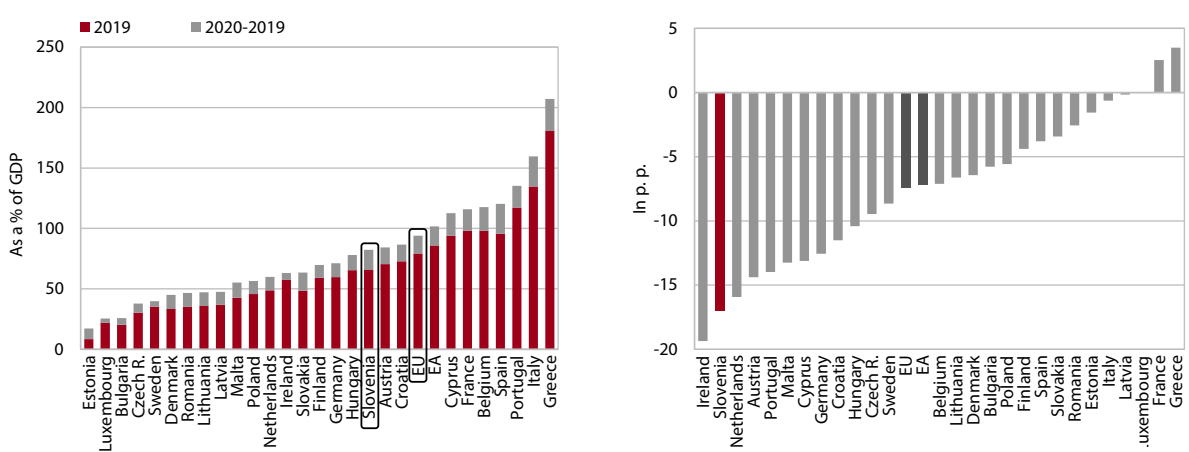
in debt also stemmed from the unfavourable "snowball effect" and large-scale pre-financing. In a low interest rate environment facilitated by expansionary monetary policy, the pre-financing of the state budget, which represents the bulk of the government debt, amounted to EUR 3.5 billion or 45% of its total annual indebtedness. This created additional liquidity reserves in uncertain circumstances before 2021, when the projected maturity of the principal debt is higher in relative terms than the multiannual average. The increase in debt in 2020 was largest in the countries with the most severe containment measures and a previous high level of debt; in Slovenia it was similar to the estimated EMU average.

Table: General government debt, Slovenia

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	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	31.7	37.4	
in % GDP	21.8	34.5	38.3	46.5	53.6	70.0	80.3	82.6	78.5	74.1	70.3	65.6	80.8	60.0
Conversion of debt into p.p. of which:	-1.0	12.7	3.8	8.2	7.1	16.4	10.3	2.3	-4.1	-4.4	-3.8	-4.7	15.2	
1. Primary balance	0.3	4.5	4.0	4.7	2.0	12.0	2.3	-0.4	-1.1	-2.4	-2.7	-2.1	6.7	
2. Snowball effect	-0.6	2.2	1.5	1.2	3.0	2.2	1.0	0.7	-0.1	-2.2	-2.6	-2.0	4.5	
- Interest expenditure	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	
- GDP growth effect	-0.7	1.7	-0.4	-0.3	1.2	0.5	-1.9	-1.7	-2.5	-3.5	-3.1	-2.1	3.8	
- Inflation effect*	-1.0	0.8	0.4	-0.4	-0.2	-0.9	-0.3	-0.8	-0.6	-1.2	-1.5	-1.6	-0.9	
3. Stock-flow adjustment**	-0.7	5.9	-1.8	2.3	2.1	2.2	7.0	2.0	-2.7	0.2	1.5	-0.6	3.9	

Source: SURS, 2021.  
Note: \* Measured using GDP deflator. \*\* Change in the public debt-to-GDP ratio not resulting from the primary balance and snowball effect (cash, deposits, loans and other). Some data are not aggregated due to rounding.

Figure: General government debt forecast in EU Member States in 2020 (left) and change in the public debt-to-GDP ratio in 2015–2019 (right)



Source: EC, 2020a.  
Note: According to SURS data (March 2021), the general public debt for Slovenia for 2020 (80.8% of GDP) did not deviate significantly from the EC debt forecast (82.2% of GDP), which is used in the chart.

<sup>1</sup> According to the debt rule in 2019, the debt should have been reduced by at least 0.5 p.p., while it actually decreased by 4.7 p.p. In the three-year transitional period 2016–2018, Slovenia also achieved debt levels that were lower than the requirements under the MLSA (minimum linear structural adjustment) rule.

Fiscal balance

1.4

**The deep economic downturn and the measures aimed at mitigating the consequences of the COVID-19 epidemic have severely worsened the fiscal situation.** The general government balance, which was balanced in 2017 and demonstrated a surplus in 2018–2019, turned into a deficit (-8.4% of GDP) in 2020. Already in 2019, the revenue growth slowed considerably as a result of the moderation of economic activity growth, reduced taxation (holiday allowance) and a fall in the government's revenue from property due to the sale of ownership shares. In 2020, revenues fell sharply (-4.6%), mainly due to a cyclical decrease in tax revenues and further tax relief (personal income tax, reduction of excise duties on energy products) and also to tax exemptions provided by the emergency legislation<sup>1</sup>. Revenues from property also decreased further. Expenditure growth gradually increased in 2018–2019 due to the easing of measures in place for a number of years following the financial crisis, new statutory obligations (particularly concerning social transfers and wages) and stronger increase in general government investments, which rose from the historically lowest levels in 2016 and 2017 (from 3.1% to 3.8% of GDP in 2019). In 2019, expenditure growth already exceeded revenue growth, and in 2020 an even stronger expenditure growth was mainly related to intervention measures aimed at mitigating the effects of the epidemic. It is estimated that this expenditure amounted to around 5.4% of GDP, most of which was

devoted to maintaining jobs, mitigating the income situation of vulnerable groups and the operation of public services, in particular the healthcare system. Furthermore, investments continued to increase in 2020, as did some other expenditure on a permanent basis (compensation for employees due to the employment growth and the public sector wage agreement in 2018, personal assistance expenses, etc.).

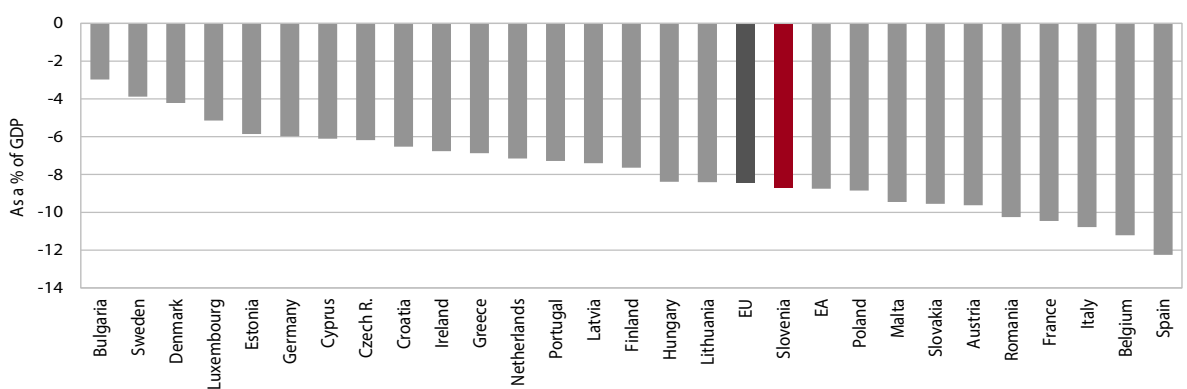
**The EC announced the decision to activate the general escape clause from the fiscal rules for the euro area shortly after the outbreak of the epidemic, which allowed countries to respond much more quickly than at the onset of the financial crisis.** The general escape clause was activated in March 2020, and at the same time the EC made a recommendation to the EU Member States to provide targeted and temporary fiscal support under these circumstances while safeguarding the sustainability of public finances in the medium term.<sup>2</sup> The deficit exceeded 6% of GDP in most countries; according to available estimates, it was around the EU average in Slovenia. In international comparisons, the impact of discretionary measures to mitigate the effects of the epidemic was in terms of general government expenditure higher in Slovenia than the EU average but smaller in terms of used guarantee schemes (EC, 2021; EU IFI, 2021).

Table: General government revenue, expenditure and balance, ESA 2020, Slovenia, as a % of GDP

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenue	43.7	43.5	44.6	44.2	45.4	45.7	45.3	45.9	44.2	44.0	44.3	43.7	43.6
Expenditure	45.1	49.4	50.2	50.9	49.4	60.3	50.8	48.7	46.2	44.1	43.5	43.3	52.0
Balance	-1.4	-5.8	-5.6	-6.6	-4.0	-14.6	-5.5	-2.8	-1.9	-0.1	0.7	0.4	-8.4
Primary balance	-0.3	-4.5	-4.0	-4.7	-2.0	-12.0	-2.3	0.4	1.1	2.4	2.7	2.1	-6.7

Source: SURS, 2021.

Figure: General government balance forecast for EU Member States in 2020, as a % of GDP



Source: EC, 2020a. Note: According to the data for 2020 from SURS, the general government deficit in Slovenia accounted for 8.4% of GDP, which did not deviate significantly from the EC (and also the MF) forecast, which is included in the chart (8.7% of GDP).

<sup>1</sup> In accordance with emergency legislation, the instalment of the prepayment of personal income tax on income from self-employment and the instalments of the prepayment of corporate income tax for 2020 that fell due in the period from 11 April 2020 to 31 May 2020 were not paid, which reduced the revenues of the general government. At the same time, the emergency legislation also introduced the possibility of payments in instalments or deferrals of tax liabilities, which, however, had an impact only on the revenues according to the cash-flow methodology and not on the general government data according to the ESA-2010 methodology, which are covered by the indicator.

<sup>2</sup> The Fiscal Council (FS 2020a) also assessed that the circumstances warrant the activation of the escape clause from the rules under the Fiscal Rule Act.

## Current account of the balance of payments and net financial position of Slovenia towards the rest of the world 1.5

In 2020, the current account surplus, which Slovenia has had since 2012, was the highest ever (EUR 3.3 billion or 7.1% of GDP). The surplus, which has accumulated since 2012, was related to extensive deleveraging of banks and companies abroad, favourable international conditions and an increase in exporters' competitiveness along with moderate import growth due to relatively low domestic consumption. Positive terms of trade also contributed to the growth of the surplus over the period 2013–2016. In 2020, the impact of the epidemic was mainly reflected in the current account of the balance of payments in the segment of trade in goods and services. The higher current operations surplus was mainly due to a higher trade surplus, as the decline in real imports was stronger than the decline in exports, given a decrease in household consumption and investment. Owing to a fall in the prices of energy-generating products and the prices of industrial products, import prices fell more than export prices, which improved trade conditions by 1.2% and increased the trade surplus by approximately EUR 300 million. The service surplus decreased, mostly in the travel segment and partly in the transport segment. Net outflows of primary income were lower, mainly due to lower net outflows of equity income from direct investment. In terms of the savings and investment gap, the surplus of current transactions reflects extensive savings of the private sector (households and non-financial corporations).

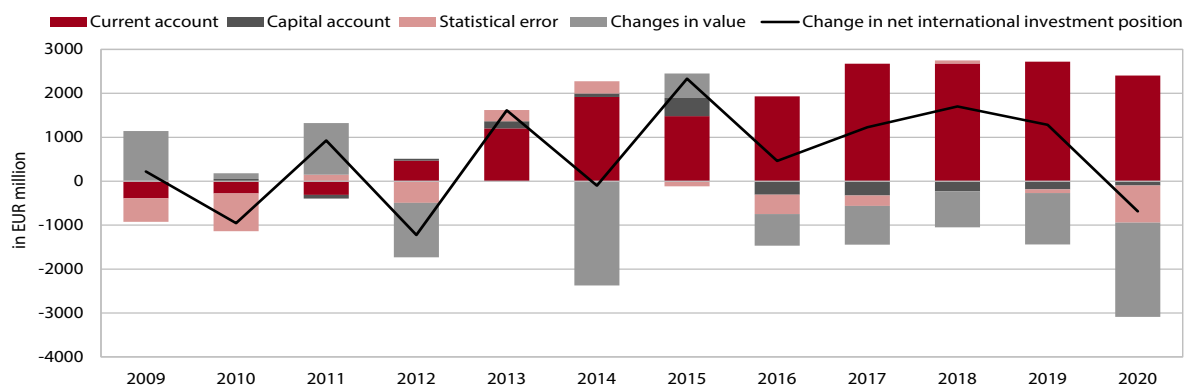
Owing to the impact of the pandemic on international financial flows, Slovenia's international investment position deteriorated slightly in 2020 (to 16.3% of GDP). This trend was contributed to by a net inflow of financial resources from the public sector, which exceeded the net outflow of funds from the Bank of Slovenia and the private sector. The government placed liquidity surpluses on accounts abroad, and in 2020, due to the measures to mitigate the effects of the pandemic, it borrowed significantly from foreign portfolio investors in order to finance the budget deficit and repay the principal of government debt in 2021. Given the volatile situation on international financial markets, the government also increased its liabilities in financial derivatives, thereby hedging the issued government bonds against exchange rate and interest rate risks. The Bank of Slovenia increased its net capital outflow mainly due to higher receivables in the TARGET payment system. The private sector further increased financial investment in foreign securities, while at the same time, non-financial corporations reduced liabilities in the short-term commercial credit segment and commercial banks continued to deleverage towards the rest of the world. The inflow of foreign direct investment into Slovenia has increased in recent years due to the sale of ownership shares in domestic companies and exceeded the value of Slovenian direct investment in foreign countries.

**Table: Slovenia's international investment position, as a % of GDP**

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1 Debt claims (receivables)	75.9	74.0	74.1	75.3	75.3	87.6	88.4	85.4	82.9	82.9	88.5	103.9
2 Equity claims	21.5	22.2	21.1	22.3	22.5	23.6	27.7	26.9	25.5	24.7	26.9	31.6
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	115.4	135.6
4 Gross external debt	115.0	115.6	111.8	117.4	112.9	124.3	118.8	109.6	100.5	91.9	90.5	104.1
5 Equity liabilities	23.1	23.8	23.2	24.2	24.2	25.2	28.4	31.4	32.1	34.7	40.2	47.8
6 Total liabilities (4+5)	138.1	139.3	135.0	141.6	137.1	149.6	147.2	141.0	132.6	126.6	130.7	151.9
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	-2.0	-0.2
8 Net external debt/claims (2–5)	-1.6	-1.6	-2.1	-1.9	-1.7	-1.6	-0.7	-4.6	-6.6	-10.0	-13.3	-16.1
9 Net financial position (7+8)*	-40.6	-43.1	-39.8	-44.0	-39.3	-38.4	-31.2	-28.8	-24.2	-19.0	-15.4	-16.3

Source: BS, 2021; calculations by IMAD. Note: \* A negative (positive) sign in the balance concerned indicates a net debt (credit) external financial position.

**Figure: Breakdown of changes in net international investment position (NIIP), in million EUR (flows)**



Sources: SURS, 2021; BS, 2021a; calculations by IMAD.

Financial stability

1.6

**The Slovenian financial system remained stable due to the rapid response of economic policymakers following the outbreak of the COVID-19 epidemic.** As a result of the aggravated economic situation linked to the outbreak of the epidemic, risks to financial stability initially increased considerably, and capital markets responded most rapidly and most strongly to the outbreak of the epidemic. In the face of increased uncertainty, stock exchange indices decreased significantly, while interest rates on government bonds increased, especially in peripheral countries, including Slovenia. However, rapid and comprehensive action by economic policymakers to mitigate the negative economic consequences after the first wave of the epidemic restored confidence in the financial markets, which has remained relatively high, without significant fluctuations, in spite of increased uncertainty and the higher number of second-wave infections. Nevertheless, higher risks to financial stability are expected over the medium term, when, as a result of higher debt, the spill-over risks between public and private sector indebtedness and the financial system will also increase (ECB, 2020a).

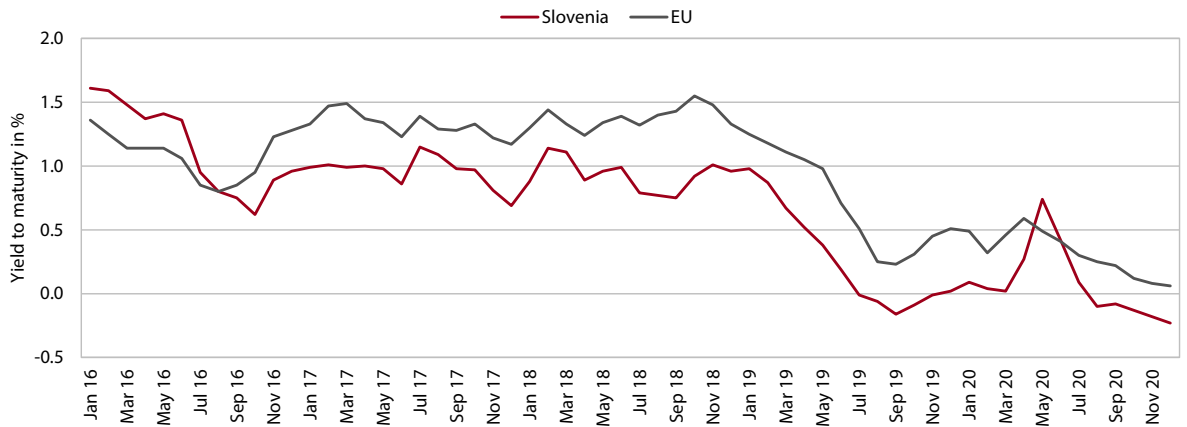
**The situation in the Slovenian banking system improved considerably after the recovery following the last financial crisis and remained stable even at the outbreak of the epidemic.** After declining rapidly in recent years, the share of non-performing assets remained unchanged in the third quarter of 2020. The liquidity of the banking system remained sound in 2020, and the ECB provided additional liquidity to banks through standard instruments and additional measures. Despite the deterioration at the beginning of the year, the capital adequacy ratio of the banking system, due to the relatively high credit activity before the outbreak of the epidemic, strengthened again in the third quarter of 2020 and remained better than the EU average. With retained profits, banks contributed to the strengthening of the highest quality capital. According to the Bank of Slovenia, the banking system's exposure to the most badly affected activities is relatively low (BS, 2020), but despite this, the share of non-performing assets in the banking system can be expected to increase in the future.<sup>1</sup>

Table: Financial system stability indicators\*

	2015	2016	2017	2018	2019	2020 Q3
Share of non-performing assets (in %)						
Slovenia	21.5	14.4	10.5	6.8	3.7	3.2
EU	5.8	5.1	4.1	3.2	2.7	2.8
TIER 1 capital adequacy ratio (in %)						
Slovenia	18.1	18.7	18.3	18.4	18.7	17.8
EU	14.8	15.5	16.3	16.3	16.7	16.7

Source: EBA, 2021. \* Data refer to a sample of banks that changes annually. In 2020, 182 banks and bank branches were included, accounting for more than 80% of the EU banking system. As defined by EBA, non-performing assets, in addition to those with delays over 90 days, also include receivables with low probability of payment. Data up to 2019 also include the United Kingdom.

Figure: Government bond yields



Source: Eurostat, 2021.

<sup>1</sup> Monthly data of the Bank of Slovenia show that the share of non-performing assets increased slightly at the end of the previous year, mainly due to the increase in the more affected service activities, especially in the accomodation and food sector, where the share of non-performing assets increased by more than a third in the last quarter (to 10.3%).



# Financial system development

1.7

In 2020, a relatively wide gap between Slovenia and the EU average in the development level of the banking system and the capital market increased further, despite the growth in the value of development indicators. The growth of the balance sheet total, peaking at 8.2%, was the highest in the last ten years and, together with a decline in GDP, led to a marked increase in the balance sheet total indicator relative to GDP. It stemmed from a relatively rapid increase in the deposits of domestic non-banking sectors, as household savings increased significantly during the epidemic and corporate deposits also increased as production and investment declined. As a result, the banking sector's investment structure changed. Lending activity slowed down considerably and banks in particular strengthened their deposits with the central bank, which had a negative interest rate to some extent, which may have a negative impact on the business performance of the banking system. The loan-to-deposit ratio of the non-banking sector thus stood at 0.71 at the end of 2020, which is two-fifths below the average level in 2005–2008, i.e. before the onset of the

global financial crisis. With the rapid growth of deposits from domestic non-banking sectors and modest lending activity, the banks' need for foreign financing was modest and the share of liabilities to foreign banks remained low (5.3%). The market capitalisation of shares listed on the Ljubljana Stock Exchange is modest, declining by around 2% in 2020, while it remained almost unchanged in the rest of the EU. The financing of companies in Slovenia through the issue of shares is still negligible.

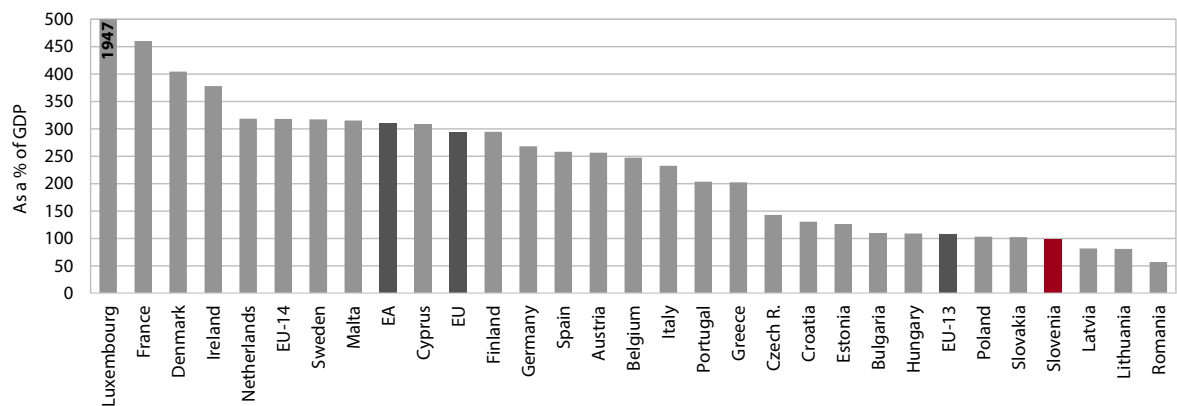
The development gap with the EU average in the insurance sector is smaller than in other segments of the financial system but has remained at a similar level for a number of years. The share of insurance premiums compared to GDP has been slightly above 5% for several years and in 2019 was at around two-thirds of the EU average level. The relatively small development gap is due to the high (above-average) level of non-life insurance premiums, while the share of life insurance is modest as a result of the conservative savings habits of households and the too modest significance of old-age savings.

Table: Indicators of financial system development level in Slovenia and the EU

In %	2000	2005	2008	2009	2010	2015	2016	2017	2018	2019	2020
Banks' total assets, as a % of GDP											
Slovenia	84.5	103.5	129.2	147.3	145.8	107.1	99.4	94.0	88.6	88.2	99.7
EU	219.9	267.9	312.2	320.4	321.5	277.8	273.4	259.3	253.8	258.6	294.9
Insurance premiums, as a % of GDP											
Slovenia	5.0	5.3	5.3	5.7	5.8	5.1	5.1	5.1	5.1	5.2	
EU-24*		7.7	7.3	8.0	8.1	7.8	7.5	7.4	7.4	7.5	
Market capitalisation of shares in comparison with GDP											
Slovenia	17.7	23.0	22.3	23.3	19.3	14.2	12.4	12.3	13.9	14.7	14.9
EU	80.9	82.2	37.1	47.7	51.2	61.8	62.3	69.3	56.5	66.5	73.1

Sources: BS, 2021a; ECB, 2021; SURS, 2021; Eurostat, 2021; Slovenian Insurance Association, 2020; Swiss Re, 2020; Ljubljana Stock Exchange, 2021; FESE, 2021.  
Note: \* The insurance premium indicator (as a % of GDP) lacks data for the Baltic States.

Figure: Balance sheet total in 2020



Sources: BS, 2021a; ECB, 2021; SURS, 2021; Eurostat, 2021.  
Note: The EU-14 are the Member States that joined the EU before 2004 and the EU-13 those that joined in 2004 or later.

Regional variation in GDP per capita

1.8

In 2019, the Osrednjeslovenska region, the one with the highest GDP per capita, exceeded the Slovenian average by more than 40%. Located in this region is the capital, with its state-building functions and many jobs which also provide employment to inhabitants of other regions, who thus contribute to creating the highest GDP per capita in Slovenia. Jugovzhodna Slovenija, whose economy is primarily focused on the pharmaceutical and automotive industries, had the highest economic growth in 2019 and came very close to the Slovenian average. The Obalno-kraška region, which in 2018 still exceeded the Slovenian average in terms of GDP per capita, lagged behind it in the face of a real fall in economic growth in 2019. In 2020, it was also the region with the largest drop in employment due to the COVID-19 crisis (see Indicator 3.17). In 2019, the lag behind the Slovenian average also increased in the Goriška, Primorsko-Notranjska, Koroška and Pomurska regions. The Zasavska region, which lags most considerably behind the Slovenian average, experienced above-average economic growth in 2019, yet it still achieved only a good half of the national average GDP per capita.

**Regional disparities, which had increased most significantly in the global financial crisis, were stable in recent years and slightly higher than their lowest level in 2000.** In 2019, the relative dispersion of GDP per capita<sup>1</sup> (21.6%) was 0.2 p.p. lower than in 2018. However,

it was still 2 p. p. higher than in 2000, when the ratio between the two extreme regions (1:2) was also lower than in 2019 (1:2.7). In that year, the disparities between the two cohesion regions also decreased slightly due to both higher economic growth and slower population growth in the Vzhodna Slovenija cohesion region, which had also been the reason for smaller disparities between the two regions in the first years of the global financial crisis.

**Since 2016, the Zahodna Slovenija cohesion region has re-established its position as one of the more developed European regions, while Vzhodna Slovenija remains one of the less developed regions.** Among statistical regions, the Osrednjeslovenska region alone exceeded the EU average in 2019. Given the considerable lagging behind the European average of the majority of the regions, the catching up with the European average in terms of development seems to be an extremely complex long-term objective. For comparison, the gap between individual statistical regions and regions in the neighbouring countries which are at a similar development stage is indicated. In 2017 (the latest data), the Osrednjeslovenska region lagged behind the Klagenfurt–Villach region by 3 index points, the Goriška region behind the Italian Gorizia by 14 index points and the Pomurska region behind the Hungarian Vas by 8 index points.

Table: Regional GDP, Slovenia

Cohesion (NUTS 2) / statistical region (NUTS 3)	GDP per capita										GDP structure, in %
	Slovenia = 100								EU = 100		
	2005	2008	2014	2015	2016	2017	2018	2019	2008	2019	
Slovenia	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	91	89	100.0
Zahodna Slovenija (KRZS)	121.6	121.2	119.2	119.1	119.4	119.6	119.8	119.2	110	106	56.6
Obalno-kraška	104.6	107.1	97.6	99.8	99.8	102.3	102.4	98.8	97	88	5.5
Goriška	93.9	95.5	90.6	91.7	92.2	92.3	90.4	89.4	87	79	5
Gorenjska	87.1	84.7	87.8	88.3	87.8	89.3	89.7	89.7	77	80	8.8
Osrednjeslovenska	146.3	144.9	142.1	140.9	141.5	140.6	141.0	140.8	132	125	37.2
Vzhodna Slovenija (KRV5)	82.1	82.0	83.0	83.0	82.7	82.5	82.2	82.7	75	73	43.4
Primorsko-notranjska	73.7	73.0	72.2	74.6	74.9	72.6	71.9	69.7	66	62	1.8
Jugovzhodna Slovenija	95.9	97.0	95.0	95.3	94.3	97.6	98.1	99.7	88	89	6.9
Posavska	81.0	79.8	83.6	83.9	83.7	83.0	82.9	84.0	73	75	3
Zasavska	63.8	60.7	56.7	54.2	53.5	52.7	52.4	53.0	55	47	1.4
Savinjska	89.1	89.4	91.3	92.4	92.0	91.6	90.5	90.5	81	80	11.1
Koroška	79.4	77.0	80.2	81.4	81.2	80.2	81.1	80.7	70	72	2.7
Podravska	82.3	83.7	83.4	82.6	82.1	81.1	80.8	81.5	76	72	12.7
Pomurska	66.5	63.3	68.4	67.3	68.1	67.6	67.9	67.8	58	60	3.7
Dispersiy of GDP per capita (NUTS 3)	22.9	23.0	21.8	21.2	21.6	21.5	21.8	21.6			

Sources: SURS, 2021; Eurostat, 2021; calculations by IMAD.

<sup>1</sup> One of the indicators of regional variations. It is calculated as the sum of absolute differences between regional and national GDP per capita, weighted by the share of population. It is expressed as a percentage of the national GDP per capita.

The European Innovation Index1.9

**Regarding the European Innovation Index (EII), Slovenia has been classified in the group of moderate innovators since 2018, after having been classified among the strong innovators for a longer period of time.** The EII monitors the performance of EU Member States' national research and innovation systems on ten components<sup>1</sup>. It is a composite indicator whose value determines the classification of countries into four groups<sup>2</sup>. The calculation of EII 2019 includes data for the period 2016–2019, so the impact of the COVID-19 epidemic is not yet covered. The EII value for Slovenia has been deteriorating since 2015, while the European average started to increase a year earlier. Slovenia also regressed in the last EII measurement for 2019<sup>3</sup> compared to the previous year, with most of the EII indicators showing a fall (15 out of 27). Among the EII components, the worst result compared to the EU average was achieved in terms of finance and support, which is mainly a result of traditionally lowest values of risk capital, even in terms of international comparisons. In addition, the contribution of public sector investments in R&D in 2012–2016, when they were steadily decreasing

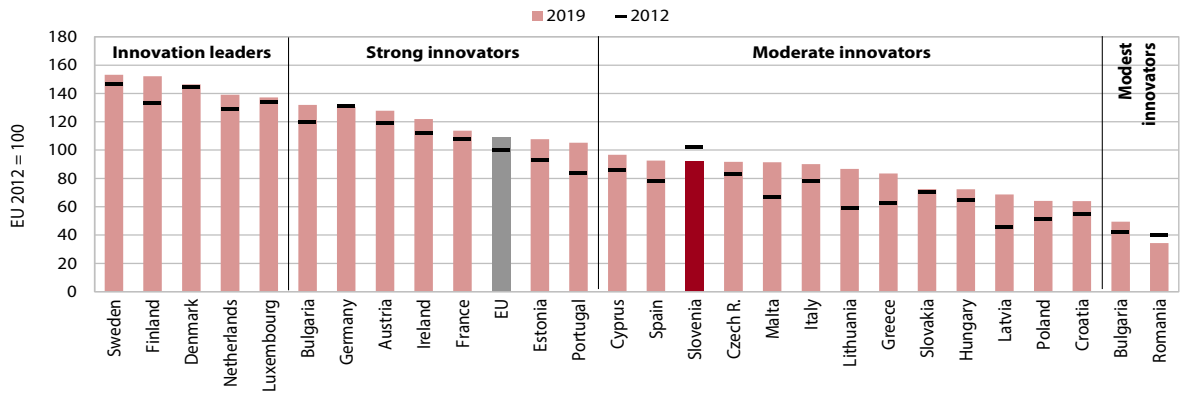
even in absolute terms, was also negative, and between 2012 and 2019 Slovenia significantly increased the gap by 24 index points. A major setback and widening gap in comparison with the EU average was recorded between 2012 and 2019 in the innovation-friendly environment component as a result of a significant decline in the motivational entrepreneurship index in recent years, because the number of necessity-driven entrepreneurs grew more than the number of opportunity-driven ones. A significant deterioration in the human resources component, which was mainly a result of the changes in the education system in this period<sup>4</sup>, was also recorded, and Slovenia thus moved away from the leading countries towards the EU average. There has also been a setback in linkages between different actors and firms' investments to promote innovation, meaning that Slovenia is now only slightly above the EU average. However, an improvement in the result compared to the EU average was recorded in the employment impacts, mainly due to the high share of employees in the fast-growing enterprises of the most innovative industries, which increased by 57 index points between 2012 and 2019.

European Innovation Index

	2012	2013	2014	2015	2016	2017	2018	2019	SDS 2030 target
Slovenia (Index EU 2012 = 100)	102.3	103.1	100.5	101.3	98.8	97.9	94.4	92.4	>120 (ranking among innovation leaders)*
Slovenia (index EU = 100)	102.3	102.4	101.3	101.0	96.3	93.7	88.4	84.9	
Slovenia	0.477	0.480	0.468	0.472	0.460	0.456	0.440	0.431	
EU	0.466	0.469	0.462	0.468	0.478	0.487	0.498	0.507	

Source: EC, 2020c. Note:\* Innovation leaders are countries with innovation performance above 120% of the EU average recorded in 2012. In 2019, the innovation leaders reached EII values between 0.639 and 0.713.

Figure: European Innovation Index



Source: EC, 2020c.

<sup>1</sup> These are human resources, attractive research systems, firm investment, innovators, linkages, intellectual assets, and sales impacts, with three indicators included, and innovation-friendly environment, finance and support, and employment impacts, with two indicators included.

<sup>2</sup> Innovation leaders achieved innovation performance above 120% of the EU average in 2011, strong innovators between 90% and 120%, moderate innovators between 50% and 90%, and modest innovators below 50% (EC, 2020c).

<sup>3</sup> The value of the EII is significantly influenced by the data on innovation activity, which are included in as many as six EII indicators. The EII 2019 calculation included data on innovation activity for all EU Member States for the period 2014–2016, when Slovenia recorded a setback in innovation activity. The latest data, for the period 2016–2018, when innovation activity started to improve, will be included in the EII 2020 calculation.

<sup>4</sup> In 2016, the pre-Bologna programmes were fully set in place, so the number of new PhDs included in the human resources component was extremely high at that time and accordingly much lower in 2017 (IMAD, 2020e).

Productivity

1.10

**Following the global financial crisis, productivity growth slowed down and along with it also the closing of the productivity gap to the EU average in the direction of the SDS target.** In 2000–2008, the average annual productivity growth stood at 3.0%, while in 2009–2019, it slowed to 0.6% (or to 1.4% in the period of economic expansion 2014–2019). A key factor in the slower growth was more modest capital deepening, even in the years when the environment for investment had already improved considerably.<sup>1</sup> The slowdown in productivity growth also slowed the closing of gap with respect to the average EU productivity level and thus the process of real convergence with the more developed EU Member States.

**In 2020, productivity, measured by value added per employee, decreased sharply.** With a sudden drop in demand and restrictions on activities due to the COVID-19 outbreak and the simultaneous large-scale job retention schemes, labour productivity, measured by GDP per employee, fell by 4.6% in 2020.<sup>2</sup> The decline in productivity was comparable to the EU average both in total (-4.7%) and in most sectors. The

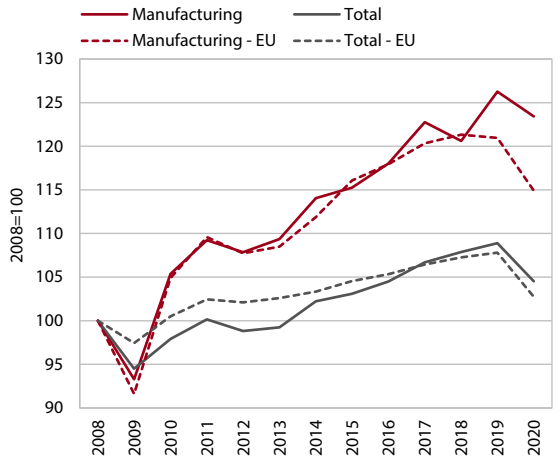
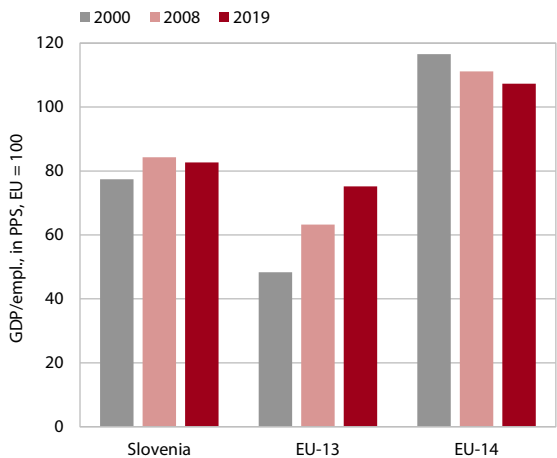
largest decreases in value added per employee were recorded in services with restrictions on doing business, i.e. arts, entertainment and recreational activities, accommodation and food services and trade, both in Slovenia and in the EU. In manufacturing, which is the most export-oriented part of the economy and where productivity significantly determines its export competitiveness, the drop in productivity was among the lower in the business sector<sup>3</sup> and among the milder ones compared to other EU Member States. This is even more true for the construction sector, while the decline in ICT productivity was larger than the EU average, thus continuing the trend of lagging productivity in these activities compared to the trends in other EU Member States. In Slovenia, the decline in the productivity of the overall economy was slightly lower than in the first year following the onset of the global financial crisis (deeper in the EU on average) and, in line with the nature of the crisis, the differences between activities were significant. Compared to the trends in 2009, the decline in productivity was much more pronounced in the above-mentioned non-financial market services and smaller in construction and manufacturing.

Table: Labour productivity, Slovenia

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	SDS 2030 target
Productivity level*, EU=100	84	81	80	81	81	81	82	81	81	82	82	83		95
Real productivity growth**, in %	1.0	-6.0	3.5	2.6	-1.7	0.1	2.3	0.9	1.3	1.8	1.1	0.7	-4.6	

Sources: SURS, 2021; Eurostat, 2021; calculations by IMAD.  
Note: \* GDP (in purchasing power standards) per employee; \*\* GDP (at constant prices) per person employed.

Figure: Economic productivity level (left) and real productivity growth by activities (right)



Source: Eurostat, 2021; calculations by IMAD.  
Note: Productivity level (left) measured by GDP (in purchasing power standards) per employee; productivity growth (right) measured by GDP or sector value added (at constant prices) per person employed. EU-13 (EU-14) represents the countries that joined the EU in 2004 or later (before 2004).

<sup>1</sup> Further details are available in Section 1.2.  
<sup>2</sup> The decrease in GDP or value added per employee was largely a result of a reduction in working hours per employee. See also Section 1.2.  
<sup>3</sup> Also because of slightly more extensive layoffs.

The Digital Economy and Society Index

1.11

Despite absolute progress in digital competitiveness, Slovenia has been increasingly lagging behind the EU average, moving away from the goal of a timely and successful digital transition of the country. The Digital Economy and Society Index (DESI) measures the digital competitiveness of EU Member States in areas of connectivity, human capital, the use of internet services, integration of digital technologies and digital public services. The calculation of DESI 2020 is based on data for the previous year and does not yet include the impact of the COVID-19 epidemic. Although Slovenia improved its ranking by one place in the last report, it also saw its lag behind the EU average increase. The analysis by components shows that Slovenia is far behind the EU average in terms of the *use of internet services*, particularly regarding video calls and online banking and shopping. In terms of *human capital and the integration of digital technologies* in companies, it was closer to the EU average, but there was only a slight trend of catching up with more developed countries. Despite the average achievements, the results in these two areas are also assessed as insufficient in terms of the need for a faster digital transition of the country. The latest data showed low levels of basic digital skills and

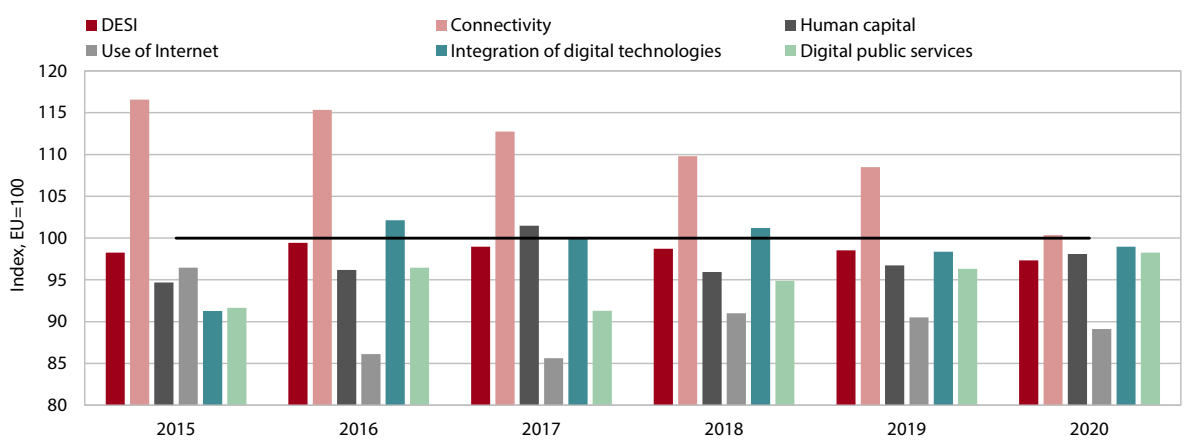
knowledge of the population, and for a more ambitious digital transition, the barely average (compared to the EU) availability of ICT professionals and graduates also proved to be problematic. Nor have the latest data been encouraging in terms of the speed of integration of digital technologies, which remains a challenge particularly in small and medium-sized companies (EC, 2020b). In terms of *connectivity*, Slovenia has been ranked above the EU average in recent years but has gradually lost its advantage. In the latest DESI (2020) publication, it thus achieved only an average result, mainly due to the lack of readiness for 5G and the slow expansion of mobile broadband connections. In addition, Slovenia faces the problem of a gap between urban and rural areas (ibid.) in high capacity broadband coverage. Developments in *digital public services* in recent years were somewhat more encouraging, especially in the provision of these services (pre-filled forms, the possibility of online provision of services, open data), but their use has remained low among both individuals and businesses. The reasons for this include the complexity of use of qualified digital certificates for the average user and, in the case of businesses, low trust and the absence of secure and unique identifiers (ibid.).

Table: Slovenia's ranking on the Digital Economy and Society Index (DESI) among the 28 EU Member States<sup>1</sup>

	2018	2019	2020	SDS 2030 target
The Digital Economy and Society Index (DESI)	16	17	16	< or = 9
Connectivity	10	10	16	< or = 9
Human capital	14	15	15	< or = 9
Use of internet services	22	22	22	< or = 9
Integration of digital technologies	14	16	15	< or = 9
Digital public services	17	18	17	< or = 9

Source: EC, 2020d.  
Note: <sup>1</sup> Index calculations for individual years are based on data for the previous year. In 2020, the index methodology was improved and recalculations were made for the previous years, which changed the countries' rankings from previous DESI reports. The DESI calculation includes 28 EU Member States.

Figure: The Digital Economy and Society Index (DESI) and its components, Slovenia



Source: EC, 2020d.

Export market share

1.12

After a sharp decline during the global financial crisis, Slovenia's export market share was mainly increasing in 2013–2019 and after a decade returned to the pre-crisis level. In 2007, Slovenia accounted for around 0.2% of global goods import, which in 2008–2012 was followed by a sharp drop in the world market share, one of the largest in the region. More than half of the drop in the market share during that period can be attributed to the export orientation (mainly geographical) on slower-growing markets, while a strong decline in (cost) competitiveness at the beginning of the global financial crisis also had an adverse impact (see also Indicator 1.13). With an improvement in price/cost competitiveness and the strengthening of import demand in major trading partners, the market share after 2013 started increasing again, more markedly in 2016–2018.

The outbreak of the COVID-19 pandemic had a highly asymmetrical impact on export markets and on quarterly dynamics, which importantly affected the Slovenian market share in 2020. The worldwide spread of the epidemic led to a sharp decline in global imports and exports, especially in the initial period. The fall in Slovenian exports in the spring months was even deeper than the fall in the global import; Slovenia's market share on the world market (excluding exports of pharmaceutical products to Switzerland) decreased by 1.7% on average in the first three quarters

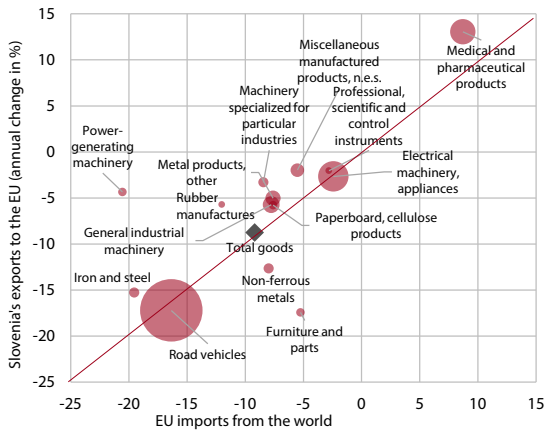
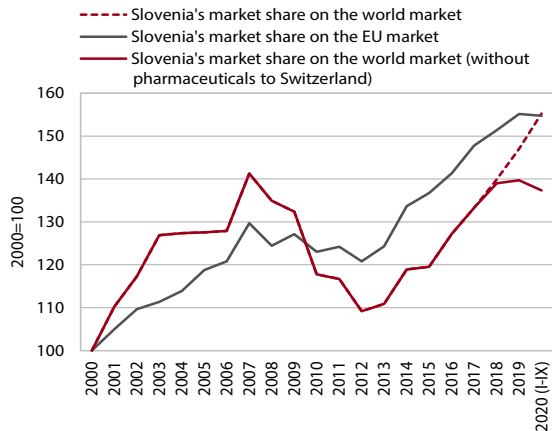
of 2020. The first estimates for the last quarter, however, indicate strengthening of the Slovenian market share despite the poor epidemiological conditions. Fluctuations in Slovenian market share in 2020 were more related to the structure of Slovenian exports than to its competitiveness. Based on detailed data on the export and import flows of EU Member States, where approximately three quarters of Slovenian goods exports is oriented, it is estimated that the COVID-19 crisis had a largely asymmetrical impact across various product groups. One of the most affected was the import of passenger cars, which represents the largest group of Slovenian exports. The value of imports of iron and steel and power-generating machinery also fell significantly. The unfavourable impact of the export structure was mitigated by the increased import demand for medical and pharmaceutical products, with an above-average share in Slovenian exports. The export and production of these products generally fluctuate less with the business cycle, and in the current health crisis, the demand for these products increased markedly. At the same time, Slovenian exporters in this segment further increased their market share on the EU market, i.e. Slovenian exports increased more than the imports of EU Member States. At the end of the year, EU imports of electrical machinery and equipment, which also have a relatively high share in Slovenian exports, also increased considerably.

Table: Slovenia's market share in the world\* and EU commodity markets

	Market share, in %			Average annual growth rates, in %			
	2000	2007	2020 (q1–q3)	2001–2007	2008–2012	2013–2019	2020 (q1–q3)
World	0.138	0.195	0.189	5.1	-5.0	3.6	-1.7
EU	0.325	0.421	0.503	3.8	-1.4	3.6	-0.3

Sources: SURS, 2021; UN Comtrade, 2021; calculations by IMAD.  
Note: \* Market share excluding the export of pharmaceutical products to Switzerland, which is close to 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: Movement of the Slovenian export market share (left) and change in imports from the EU and Slovenian exports to the EU in 2020, by major product groups (right)



Sources: SURS, 2021; UN Comtrade, 2021; Eurostat, 2021; calculations by IMAD.  
Note: The size of the circle on the right figure represents the share of the product groups in Slovenian export to the EU, showing 15 major export manufacturing product groups.



Real unit labour costs

1.13

**The divergence of productivity and wages that occurred during the global financial crisis and was reflected in the growth of real unit labour costs, only gradually decreased; due to the modest strengthening of the long-term productivity potential, it was based more on restrained wage and employment growth.** At the beginning of the global financial crisis, Slovenia saw a significant deterioration in its cost-competitiveness as a result of declining productivity (2009) and a rather high wage growth<sup>1</sup> (2010) given the economic circumstances. Adjustments arising in particular from the labour market, more specifically restrained wage growth and (passive) productivity increase through declining employment, were followed by a period of relatively aligned wage and productivity growth (2014–2017). However, real unit labour costs started to increase again during 2018 and even more significantly in 2019 (1.9%).

**The outbreak of the COVID-19 epidemic led to a significant increase in statistically observed real unit labour costs, but in this crisis, most of the increased labour cost burden has so far been borne by the state.** In 2020, real unit labour cost (hereinafter: RULC) grew by 5.9%. Due to higher increase in compensation of

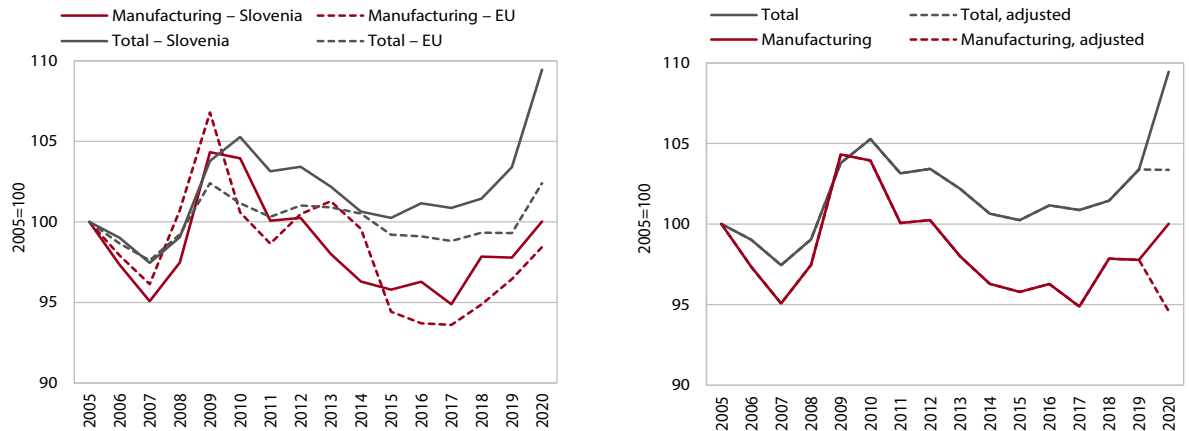
employees, the increase in RULC was more pronounced compared to the EU average, both in the total (EU 3.1%) and in the business sector which includes industry, construction and market-oriented services (Slovenia 3.6%; EU 3.0%). In the most export-oriented sector – manufacturing – decrease in productivity was less pronounced and the increase in RULC in 2020 (2.3%) was comparable to the EU average (2.1%). A strong increase in statistically observed RULC could indicate a deterioration of business results and, in sectors where their growth is higher than in the EU and other major trading partners, also impaired cost competitiveness, but such conclusions for 2020 are rather uncertain. Namely, in order to mitigate the consequences of the epidemic, part of the compensation of employees was born by the state rather than employers, in both Slovenia and its trading partners. In fact, we estimate that in Slovenia, the majority of last year's increase in RULC burdened the budget, while the adjusted or actual RULC of companies did not increase on average. Although, according to official statistics, the increase in RULC in 2020 was higher than in the first year following the onset of the global financial crisis, we estimate that the impact on cost competitiveness and business results has so far been smaller due to more extensive government intervention.

Table: Unit labour costs growth in Slovenia and the EU

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Slovenia	1.6	4.8	1.4	-2.0	0.3	-1.2	-1.5	-0.4	0.9	-0.3	0.6	1.9	5.9
EU	1.7	3.2	-1.2	-0.8	0.7	-0.1	-0.4	-1.3	-0.1	-0.3	0.5	0.0	3.1

Source: Eurostat, 2021; calculations by IMAD.

Figure: Unit labour costs, Slovenia and EU (left) and comparison of statistical and adjusted\* for the part of employee compensation financed by the state instead of employers under the anti-corona package, Slovenia (right)



Sources: SURS, 2021; Eurostat, 2021; ZRSZ, 2021; FURS, 2021; calculations by IMAD.  
Note: \* The adjusted RULC include employee compensations less payments from the budget for (i) compensation for temporarily laid-off employees, (ii) partial subsidisation of short-time working, (iii) social contributions for temporarily laid-off employees, (iv) pension and disability insurance contributions for employees who worked, (v) employee benefits, (vi) quarantine and (vii) part of sickness benefits based on anti-corona packages.

<sup>1</sup> Encouraged by a raised minimum wage.

Exports of high-tech products and knowledge-intensive services

1.14

The share of high-tech products was fairly stable in recent years and higher than the EU average. It increased more noticeably in 2005–2010 and especially during the global financial crisis, when some other, less competitive industries (certain low-tech products, such as textiles) began to shrink sharply. In the years following the crisis, high-tech exports increased in absolute values, while the share remained at the achieved level.<sup>1</sup> Around half of these exports are medical and pharmaceutical products and electrical machinery and appliances; in recent years up to 2019, the export share of aeronautical products increased the most. Exports of medium-tech products account for the largest part of commodity exports and are strongly integrated into global value chains. In 2019, their share decreased slightly, which is associated with the slowdown in foreign demand, especially the activities in the automotive industry.

The share of knowledge-intensive services<sup>2</sup> is low in international comparison. Between 2010 and 2017,

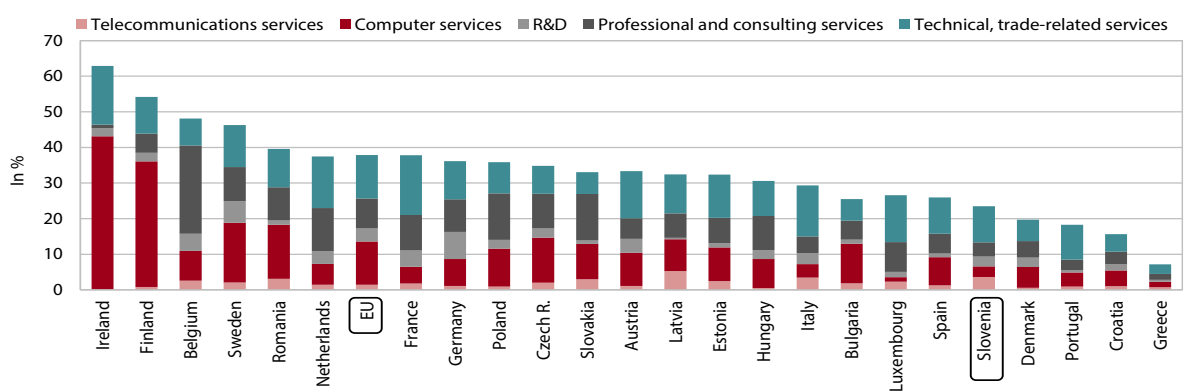
it gradually increased from 20.6% to 24.2%, and then merely fluctuated around the achieved level until 2019, which further increased the wide gap in comparison with the EU average (to 14 p.p.). The majority of services lagged behind the European average, with computer services demonstrating the greatest lag (in 2019 by more than 9 p.p.). Some of Slovenia's closest competitors (e.g. the Czech Republic, Estonia and Portugal) achieved significantly higher growth in computer services exports in 2010–2019 (on average 20% per year against Slovenia's 11.9%). In Slovenia, a higher share than the EU average was achieved mainly by telecommunications services, but this share has been decreasing since 2017. In Slovenia, exports of technical, trade-related services increased significantly over the ten-year period, i.e. by an average of 10.2% per year, while in the EU, the export of information services increased the most, i.e. by 20.2% per year, with Eastern European Member States leading in these exports.

Table: Structure of commodity exports by factor intensity

		2000	2005	2008	2010	2013	2014	2015	2016	2017	2018	2019
Natural resources	Slovenia	5.3	5.3	6.1	6.2	6.1	6.3	6.8	6.5	6.1	6.0	6.2
	EU	6.7	6.7	7.2	7.6	8.6	8.3	7.7	7.4	7.5	7.3	7.4
Resource-intensive goods	Slovenia	15.2	13.1	13.6	14.9	16.7	16.6	15.5	14.9	15.0	15.8	15.8
	EU	16.6	17.1	17.8	18.1	19.6	18.8	17.3	16.9	17.4	17.8	17.2
Low-technology products	Slovenia	27.1	23.4	20.8	18.5	17.6	18.0	17.9	18.0	17.7	17.6	17.0
	EU	15.9	15.4	15.3	14.6	14.4	14.8	14.8	15.0	15.0	15.0	14.9
Medium-technology products	Slovenia	38.1	41.8	41.0	38.9	36.0	36.7	37.3	38.5	39.0	39.5	38.8
	EU	35.7	37.4	36.9	35.4	35.9	36.6	37.5	38.0	38.1	37.8	37.5
High-technology products	Slovenia	13.1	13.7	16.2	18.5	20.0	19.5	19.7	19.6	19.8	19.0	20.0
	EU	18.8	18.3	16.9	18.6	17.3	17.5	18.1	18.4	18.2	18.1	18.9

Sources: UN Comtrade, 2021; SURS, 2021; calculations by IMAD. Note: The classification of products is based on the UN methodology (Lall). As some products are unclassified, the sums of the five product groups for individual countries do not necessarily equal 100. For the period 2018–2019, the data for Slovenia are adjusted so that the so-called re-export of medical and pharmaceutical products to Switzerland is excluded.

Figure: Share of knowledge-intensive non-financial market services\* in total exports of services, 2019



Source: Eurostat, 2021; calculations by IMAD.  
Note: \* Exports of telecommunications, computer and information services (SI), and other business services (SJ). For a more transparent presentation of the results, the share of information services is not shown in the figure, as it is higher than 1% only in three Member States. Data on computer services for Ireland are given for 2016.

<sup>1</sup> According to the UN (Lall) methodology, under which the products are classified in compliance with their technological complexity. According to a much narrower Eurostat methodology, which only includes exports of high-tech products with the most intensive use of R&D, Slovenia's share is much lower (around 6.1%).  
<sup>2</sup> Information and communication (J) and professional, scientific and technical activities (M) (OECD, 2013).

Foreign direct investment

1.15

**Inward foreign direct investment (FDI) into Slovenia began to increase more rapidly from 2015, while outward FDI has remained modest.** Higher inward FDI, which increased by as much as 43.3% in the last five years (2015–2020), 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 in Slovenia and new (greenfield) investment. The results of the SPIRIT survey in 2014–2018 show that every year more than 35% of surveyed foreign capital companies announced the expansion of their activities in Slovenia; in 2020, this share was 30.9%, which is slightly less than in the previous years. Outward FDI, however, has only modestly increased since 2014, following a decrease in 2010–2013. A more significant increase occurred only in 2019, but it was more or less followed by a stagnation in 2020, when the FDI stock was only 15.9% higher than in 2010. However, FDI inflows and outflows decreased significantly in 2020, following a previous drop in 2019 due to the outbreak of the COVID-19 epidemic.

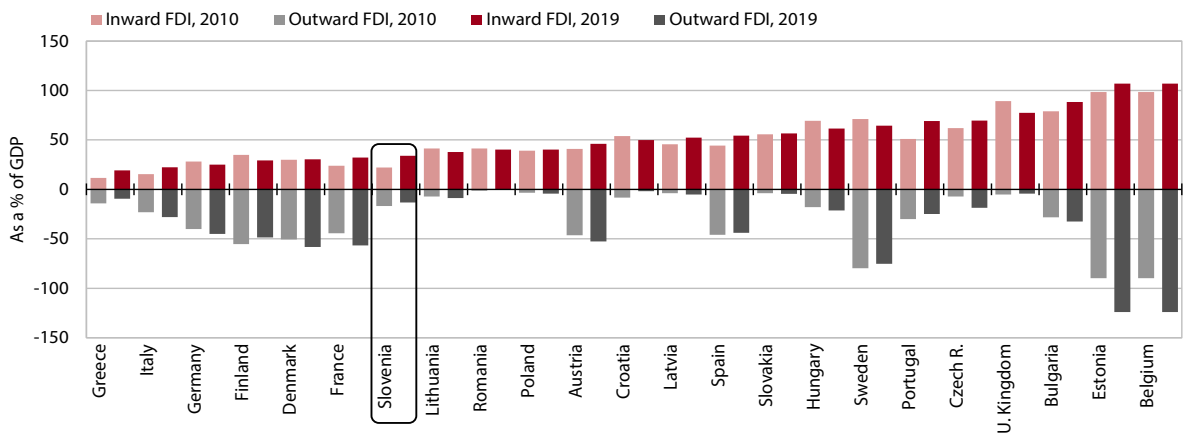
**Despite a relatively rapid growth of FDI inflows a few years before the outbreak of the epidemic, Slovenia remains among the EU Member States with the lowest inward FDI stock as a share of GDP.** Although the inward FDI stock as a share of GDP rose to 35.9% by 2020, which was 13.3 p.p. more than the stock at the beginning of the global financial crisis (in 2008), Slovenia was still lagging behind the other new EU Member States according to this indicator. In this context, the significant increase in the share in 2020 compared to 2019 was almost exclusively a result of the fall in GDP due to the epidemic. Nevertheless, in 2009–2019, Slovenia recorded the highest increase in the inward FDI stock as a share of GDP among all new Member States. Among EU Member States, only Finland, France, Greece, Italy, Germany, Denmark and France had a lower share than Slovenia. Slovenia's outward FDI stock as a share of GDP decreased from 16.8% in 2010, when it peaked, to 15.3% in 2020. Accordingly, Slovenia, among the new EU Member States, only lagged behind the Czech Republic, Hungary and Estonia, which had considerably higher shares.

Table: Flows and stock<sup>1</sup> of inward and outward FDI<sup>2</sup> in Slovenia

In EUR million	2005	2008	2010	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Inward FDI</b>												
Year-end stock	5,981	8,598	7,983	9,249	8,897	10,202	11,612	12,970	13,957	15,254	16,008	16,641
Inflow <sup>3</sup>	452	832	80	264	-114	791	1510	1126	795	1172	1096	463
Stock as a % of GDP	20.5	22.7	22.0	25.5	24.4	27.1	29.9	32.1	32.5	33.3	33.1	35.9
<b>Outward FDI</b>												
Year-end stock	2,777	6,085	6,097	5,710	5,179	5,335	5,508	5,741	5,969	6,107	6,637	7,065
Outflow <sup>3</sup>	505	961	-14	-201	-161	207	241	262	300	238	348	486
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	13.7	15.3

Sources: BS, 2020c and 2020d.  
Note: <sup>1</sup> Stocks are calculated by the BPM6 methodology according to the directional principle used by the Bank of Slovenia since 2014. The stocks calculated according to the BPM6 changed significantly due to changes in the categories taken into account in the calculation. In the case of Slovenia, this applies primarily to inward FDI: at the end of 2013, the stock of inward FDI amounted to EUR 10,728.6 million according to the previous methodology, compared with only EUR 8,926 million according to the new BPM6 methodology; the stock of outward FDI totalled EUR 5,121 million according to the previous methodology and EUR 5,172 million according to the new BPM6 methodology (BS, 2014). <sup>2</sup> Companies in which a foreign investor has a 10% or higher equity stake. <sup>3</sup> Inflows and outflows are shown according to the directional principle.

Figure: Stocks of inward and outward FDI, as a % of GDP



Source: UNCTAD, 2020. Note: For a better illustration, the figure shows the EU Member States excluding Cyprus, Malta, Ireland, Luxembourg and the Netherlands, which stand out with their high FDI stocks in comparison with other countries.

R&D expenditure and the number of researchers1.16

**Expenditure on research and development (R&D) has been increasing over the last two years, but expressed relative to GDP, it still lags far behind the peak value reached in 2013.** It achieved its highest nominal value in 2019 and accounted for 2.05% of GDP, but it has been below the EU average since 2016 (in 2019, the lag was 0.2 p.p.), with the lag behind the leading innovators even larger (in 2019: 0.6 p.p.)<sup>1</sup>. Investments in R&D decreased in 2012–2017. By consolidation of public finances, they first dropped in the public sector<sup>2</sup> (by EUR 117 million or around 40% compared to 2011); their growth in the last three years has covered around 70% of this drop. In 2015–2017, investments in R&D<sup>3</sup> also declined in the business enterprise sector, which nevertheless still remains the driving source of R&D expenditure growth. Its share in the total R&D expenditure in 2008–2019 was for the most part above 60%, which was higher than the EU average (in 2018: 59.1%; Slovenia in 2019: 61.5%) and higher than in the leading innovators (2017: 58.7%). In addition to low, especially public, R&D expenditure, insufficient cooperation and knowledge transfer between different sectors continues to be a problem,

which is also reflected in the high level of self-financing of individual sectors' investments into R&D (see also IMAD, 2020e).

**Growth in the number of researchers in 2008–2019 was only recorded in the business enterprise sector, where the majority of researchers is employed.** In 2008–2019, the business enterprise sector employed 53.0% of researchers, while in the countries that are more successful in terms of innovation, this share was significantly higher (e.g. in Austria and Sweden by more than 10 p.p.). In 2019, the share of researchers in the business enterprise sector reached 60.7% (EU: 55.2%), and in the leading innovators it was even higher (66.3%). The trend of a several years of declining in the number of public sector researchers was halted in 2018, but their number is still 243 lower than the 2010 peak. The unattractive working conditions<sup>4</sup>, also associated with the government's failure to meet its commitments in the innovation–research ecosystem<sup>5</sup>, human resources problems can only be expected to intensify in the future.

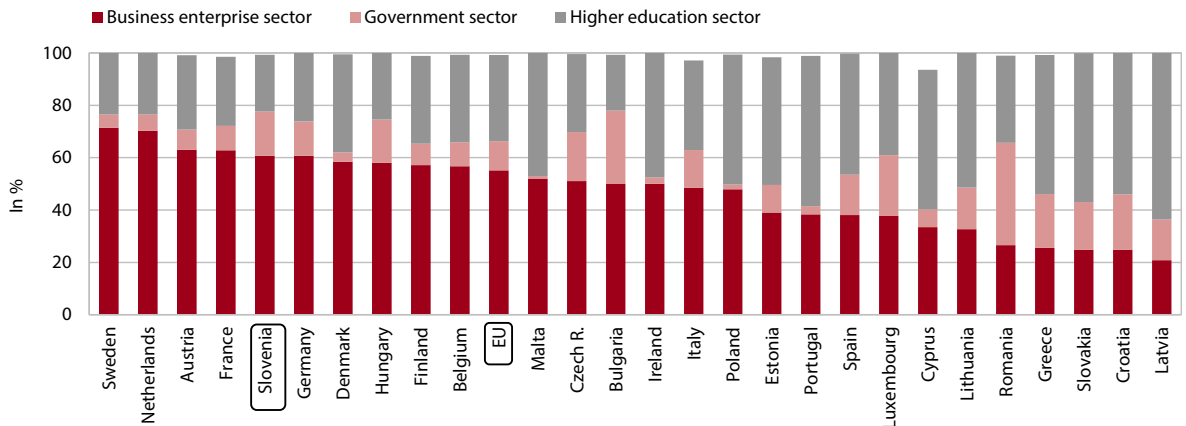
Table: R&D expenditure, as a % of GDP

	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
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	2.05
EU	1.81	1.78	1.88	1.97	1.97	2.02	2.08	2.10	2.11	2.13	2.12	2.15	2.18	2.20

Sources: Eurostat, 2021; SURS, 2021.

Notes: Data for the EU are Eurostat estimates. \* The breaks in the time series in 2008 and 2011 are due to the higher number of reporting units in the business enterprise sector, and in 2017 it is due to harmonisation of data with the revised methodology, the OECD's Frascati Manual (for more, see IMAD, 2019b).

Figure: Researchers by employment sector, 2019



Source: Eurostat, 2021. Note: The difference to 100% is made up by employed researchers from the private non-profit sector.

<sup>1</sup> The definition of innovation leaders (Sweden, Finland, Denmark, the Netherlands and Luxembourg) is based on the European Innovation Scoreboard 2020.  
<sup>2</sup> It means the government and higher education sectors together.  
<sup>3</sup> The decline in R&D investments was a result of several groups of factors: (i) the volume of European funding decreased between 2013 and 2014 with the completed co-financing of R&D projects in centres of excellence and in competence and development centres, and the simultaneous slow and late absorption of European funds since the start of implementation of the new financial perspective 2014–2020, and (ii) after 2015, the amount of R&D tax relief claimed also started to decline (by EUR 32 million or around 10% compared to 2015). In 2019, their volume increased by 5.8% after three years of decline.  
<sup>4</sup> The public sector is facing an outflow of highly skilled young researchers either to the business enterprise sector or to foreign countries due to better career opportunities (promotions, salaries), better research infrastructure and higher investments in R&D. All these aspects are also addressed in the proposal for a new Research and Development and Innovation Activities Act, which, however, has not yet been adopted; moreover, the ReRIS 2010–2020 strategy ceased to be in force as of 2021.  
<sup>5</sup> Research and Development Activity Act, 2002; Resolution on the Research and Innovation Strategy of Slovenia 2011–2020, 2011.

Innovation activity of enterprises

1.17

**The share of enterprises that introduced innovation in 2016–2018 returned to the level before the decrease in 2010–2016 but still remains below the EU average due to a noticeable lag of SME.** In 2016–2018, innovation-active enterprises (IAEs) in Slovenia accounted for 48.6%, and their share was much higher in manufacturing and traditionally lower in selected services. The share of IAEs increased by 8 p.p. compared to the previous (2014–2016) period<sup>1</sup>, while in the EU by only 0.8 p.p. According to the type of introduced innovation, 27.1% of enterprises simultaneously introduced product along with business process innovations involving elements of services<sup>2</sup>, which reflects their strong interdependence and intertwining. 9.8% of IAEs introduced product innovation only, which was 4.3 p.p. above the EU average and above the average of most of the leading and strong innovators. Only slightly more IAEs, i.e. 10.3%, implemented only business process innovation, which was 6.4 p.p. below the EU average and is proof of the too slow digital transformation in Slovenia. Revenue from the introduced product innovations in Slovenia accounted for 12.3% of total revenues from sales of products;

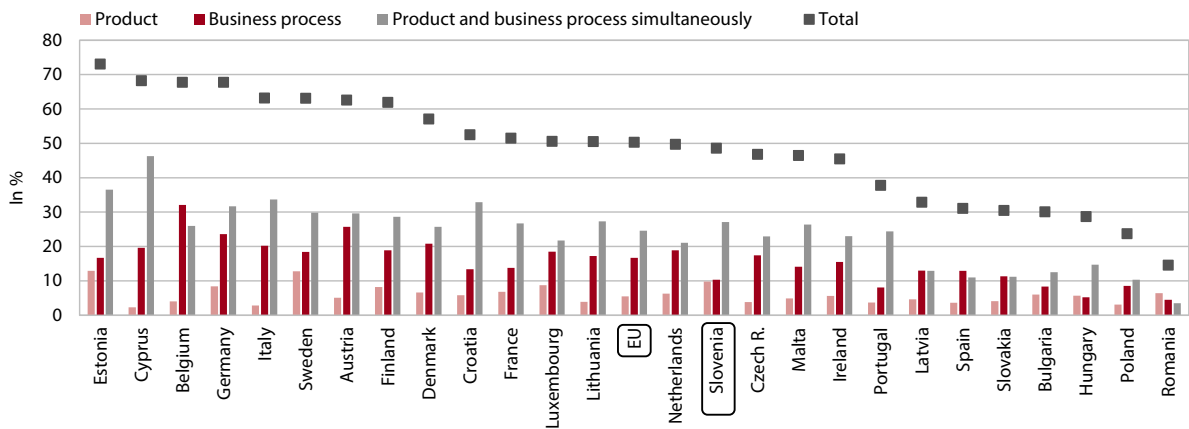
this share was higher in manufacturing (19.7%) and in certain services, e.g. computer services, which are the most dynamic in terms of innovation (21.9%). In those EU Member States that are more successful in terms of innovation (e.g. Belgium, Estonia and Finland), the revenue from the introduced innovations amounted to as much as two-fifths. In computer services, the revenues from innovations new to the market (and not just to the enterprise) were also the highest among the various activities of the Standard Classification of Activities. In Slovenia, their contribution accounted for almost a tenth of the total revenues from sales of products, which was also favourable in international comparison regarding our closest competitors (Estonia: 3.7%). The innovation activity of enterprises increases with their size, similarly as in the case of digitisation; the latest data on the IAE share show that in addition to small enterprises, medium-sized enterprises are also lagging behind the EU average, while large enterprises have maintained their leading position. A significant share of companies highlighted the impact of legislation on innovation in companies as a positive trigger for development, particularly in the fields of environment and consumer protection.

Table: Innovation-active enterprises, as a % all enterprises

		Total	Small	Medium	Large	Manufacturing	Services
2014–2016	Slovenia	39.8	34.0	55.7	82.9	43.4	36.9
	EU	50.6	46.4	63.2	77.4	53.2	48.8
2016–2018*	Slovenia	48.6	44.4	59.1	86.0	53.9	44.5
	EU	50.3	46.0	63.1	76.8	54.0	N/A

Sources: Eurostat, 2021; SURS, 2021. Note: \* A break in the time series of data due to the changed definition of innovations.

Figure: Innovation-active enterprises by type of innovation\*, 2016–2018, as a % of all enterprises



Sources: Eurostat, 2021; SURS, 2021.

Note: \* The sum of the three types of innovations exceeds the total share of IAEs in the case of Greece, therefore it is not shown in the figure.

<sup>1</sup> Due to the methodological changes introduced in the latest statistical survey, these data are not directly comparable to those from the previous period (2014–2016). They are directly comparable only on the basis of the previous definition of innovation (SURS, 2020a). With the data from the latest measurement of innovation intensity expressed as a share of IAEs of the total number of enterprises, the definition of innovation was changed in line with the revised OECD methodology (Oslo Manual 2018). There are now two types of innovations: (i) product (goods and/or services) innovation and (ii) business process innovation. Accordingly, the increase in innovation intensity in 2016–2018 is also partly due to the methodological changes. In the actual case, it is a comparison according to the previous definition of innovations (technological and/or non-technological) which was based on the Oslo Manual 2005.

<sup>2</sup> They relate to the production of goods and services, distribution and logistics, information and communication systems, administration and management, marketing, sales, and after-sales services.

Intellectual property

1.18

**Slovenia's long-standing lag behind the EU average in patents decreased significantly in 2020.** According to provisional EPO data, Slovenian applicants filed 79 patent applications in 2020, the most in 2008–2020. About 30% were submitted in only three technological fields (biotechnology, chemical technology, and electrical machines, apparatus and energy) and about 10% in medical-related technologies. The latter have further consolidated their leading position in all technological fields concerning the patent applications with the EPO at the onset of the COVID-19 epidemic and achieved one of the largest annual growths (EPO, 2021). In terms of the level of patentability, measured by<sup>1</sup> the number of first patent applications per million inhabitants, Slovenia maintained its leading position among the new EU Member States in 2008–2020. In 2008–2013<sup>2</sup>, most of the first Slovenian patent applications were related to chemical technologies<sup>3</sup> and technologies for human necessities (human medicine and veterinary medicine). This is associated with a

significant share of pharmaceutical or 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<sup>4</sup> used in individual sectors.

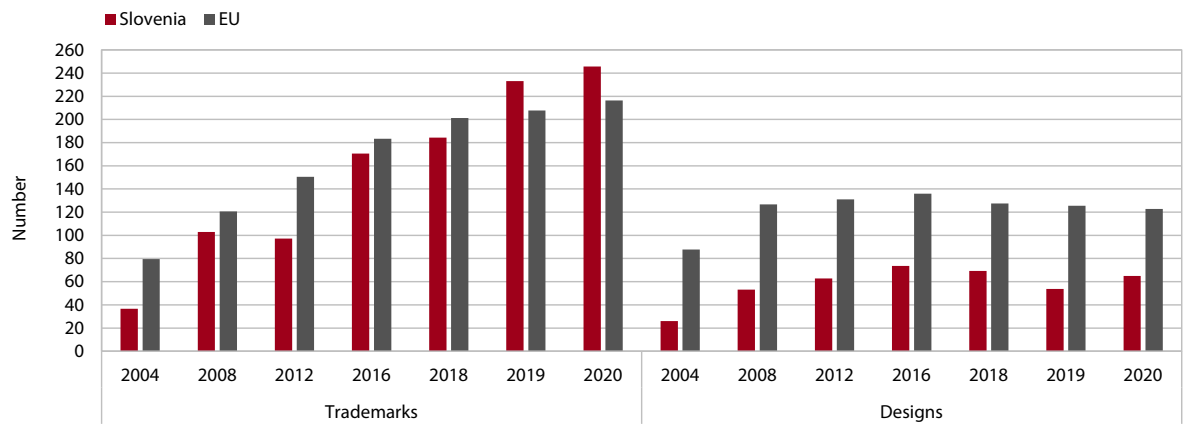
**Significant progress has been made in trademarks since 2011, while designs still lag far behind the EU average.** In EU trademark legal protection,<sup>5</sup> the number of Slovenia's applications per million inhabitants was mostly rising in 2008–2020. The high gap in the number of registered<sup>6</sup> Community designs is associated with a lack of awareness of the importance of design to increase competitiveness. With a single<sup>7</sup> application, applicants can ensure the legal protection of these two intellectual property rights throughout the EU. The costs are relatively lower and legal protection procedures are significantly faster than for patents, which affects their attractiveness among companies of all activities.

**Table: Patent applications filed with the EPO by year of first filing,\* per million inhabitants**

	2000	2005	2008	2009	2011	2012	2013**	2014**	2015**	2016**	2017**	2018	2019***	2020***
Slovenia	25	54	69	61	55	62	62	66	58	54	55	48	59	79
EU	107	119	118	117	118	117	116	116	116	113	110	148	149	147

Sources: Eurostat, 2021; EPO, 2021.  
Notes: \* Data for 2018 and 2020 relate to patent applications that are not necessarily the first on a global scale (see note 339 below). \*\* Eurostat estimate. \*\*\* Provisional data.

**Figure: Number of EU trademark applications and registered Community designs with EUIPO, per million inhabitants**



Source: EUIPO, 2021; calculations by IMAD.

<sup>1</sup> The data on patent applications filed in the last three years are from the EPO statistics and pertain to the current year. These are not necessarily the first filings worldwide, which refer to the year closest to the invention date and are released by Eurostat (see IMAD, 2009).  
<sup>2</sup> The latest Eurostat data are for 2013.  
<sup>3</sup> 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.  
<sup>4</sup> According to the WIPO methodology, the more patentable technological areas are medical technologies, computer technologies, digital communications, and technologies related to electrical energy, machines and apparatus.  
<sup>5</sup> A trademark or service mark is a legally protected sign or a combination of signs which can be represented graphically and is capable of distinguishing identical or similar goods or services. Trademark protection lasts for ten years and may be renewed (SIPO, 2013).  
<sup>6</sup> A design is a legally protected external appearance of the product, which is new and has an individual character. The legal protection of the design lasts 5 years and may be renewed (SIPO, 2013).  
<sup>7</sup> With the EU Intellectual Property Office (EUIPO).



Corporate environmental responsibility

1.19

**The COVID-19 epidemic and containment measures, which limited the operation of service activities in Slovenia and the EU in 2020, did not have a negative impact on the number of environmental certificates.<sup>1</sup>** The number of EMAS certificates and Ecolabels (per million inhabitants) remained unchanged in Slovenia in 2020 compared to 2019, while it increased in the EU. From spring to autumn 2020<sup>2</sup>, the number of EMAS certificates increased both in Slovenia and in the EU (according to the European EMAS Helpdesk). The number of Ecolabels in tourist accommodation in the EU and Slovenia also increased, although tourism was among the most affected sectors in the COVID-19 epidemic,<sup>3</sup> indicating great market interest in organic products and services (EC, 2020). The number of EMAS

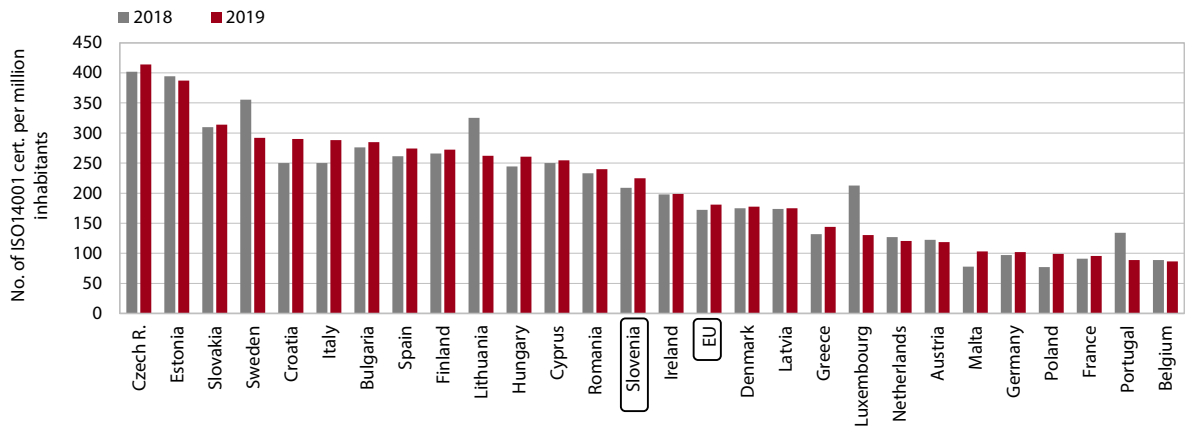
certificates and Ecolabels, despite the increase, is still much lower compared to ISO 14001 certificates. In 2019, the number of ISO 14001 certificates in Slovenia and the EU increased. Their number per million inhabitants in Slovenia remained higher than the EU average, but it was still quite far from the leading countries in this field.<sup>4</sup> Compared to the new EU Member States, the number of the ISO 14001 certificates in Slovenia is also lower. The opposite is true for EMAS, which is much more widespread in Slovenia than in the new Member States. In order to promote participation in EMAS, Slovenia participated in the LIFE B.R.A.V.E.R project, which expired at the end of 2019 and which resulted in the adoption of five incentive measures for EMAS (IMAD, 2020e).

Table: The number of environmental certificates in Slovenia and the EU, per million inhabitants

		2005	2008	2010	2015	2018	2019	2020**
ISO 14001*	Slovenia	N/A	N/A	N/A	N/A	209.0	224.9	N/A
	EU	N/A	N/A	N/A	N/A	172.4	181.0	N/A
EMAS	Slovenia	0.5	0.5	1.5	4.8	5.2	4.8	4.8
	EU	6.9	8.8	9.9	8.7	8.5	8.2	8.6
Ecolabel	Slovenia	0.0	1.5	1.5	7.3	8.7	8.7	8.7
	EU*	0.6	1.6	2.3	N/A	4.9	3.4	3.8

Sources: Eurostat, 2020; ISO, 2020; ARSO, 2020a and 2020b; EC, 2020f; calculations by IMAD.  
Note: Data on EMAS and the Ecolabel are available on Eurostat's webpage for the period 2005–2015 or 2000–2010; data for later periods were obtained at <http://ec.europa.eu/environment>; Notes: N/A – data not available. \* Data for ISO 14001 for 2018 are not comparable with data for previous years due to changes in the reporting. \*\* Calculations using data on the population in 2019.

Figure: The number of ISO 14001 certificates in the EU



Sources: EUIPO, 2020; ISO, 2020; calculations by IMAD.

<sup>1</sup> The international standard ISO 14001 (environmental management system) and the EU system for environmental management of organisations EMAS (Eco Management and Audit Scheme) are awarded to the activities of the organisation. Both certificates have been revised several times to adapt to changes in the treatment of organisations' environmental performance. The EMAS scheme also expanded the coverage of organisations through audits. The EU's Ecolabel or EU Flower commits the recipient of the label to a permanent strategy of environmental protection as much as possible throughout the life of its product or service (ARSO, 2020a; ARSO, 2020b; JR Consultants, 2020; Greenelement, 2020).

<sup>2</sup> The number of EMAS certificates and Ecolabels is monitored semi-annually, i.e. in spring and autumn.

<sup>3</sup> In 2019, their number at the EU level decreased (temporarily), mainly due to the expiration and changes or extension of the criteria for obtaining a certificate for tourist accommodation and camps.

<sup>4</sup> In order to increase the energy efficiency of companies, the proposal of the Recovery and Resilience Plan (SVRK, 2020) also states the promotion of environmental management in accordance with the ISO 14001 standard.



## 2 Learning for and through life

Knowledge and skills for high quality life and work		
2.1	Share of the population with tertiary education	◀
2.2	Enrolment in upper secondary and tertiary education	
2.3	Tertiary education graduates	
2.4	Performance in reading, mathematics and science (PISA)	◀
2.5	Education expenditure	
2.6	Participation in lifelong learning	◀
Culture and language as main factors of national identity		
2.7	Attendance at cultural events	◀
2.8	Share of cultural events held abroad	◀



Share of the population with tertiary education

2.1

**The share of adults (25–64 years) with tertiary education is approaching the SDS target, but at the same time it is much lower than in most economically developed countries.** In 2019, it was 33.3% and was higher than the EU average (31.6%) but much lower than the top ten, where it is at least 40%. In the second quarter of 2020, when the first wave of the COVID-19 epidemic occurred, it increased further to 35.3%, about the same as in the third quarter of 2020, reaching the 2030 SDS target (35%). The long-term growth of 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 (demographic effect). As a result, in 2008–2019, the share of adults with tertiary education increased the most in the age groups 35–44 and 25–34, in which in 2019 it also exceeded the EU average the most. Between the ages of 30 and 34, it has also been higher than the EU target of 40% since 2013, though lower than in most economically highly developed EU Member States. The share of tertiary educated women (25–64 years) was higher than the share of men due to higher participation in tertiary education. A higher share of tertiary educated

people is found in regions with better availability of jobs for the educated (the Osrednjeslovenska, Gorenjska and Obalno-kraška regions).

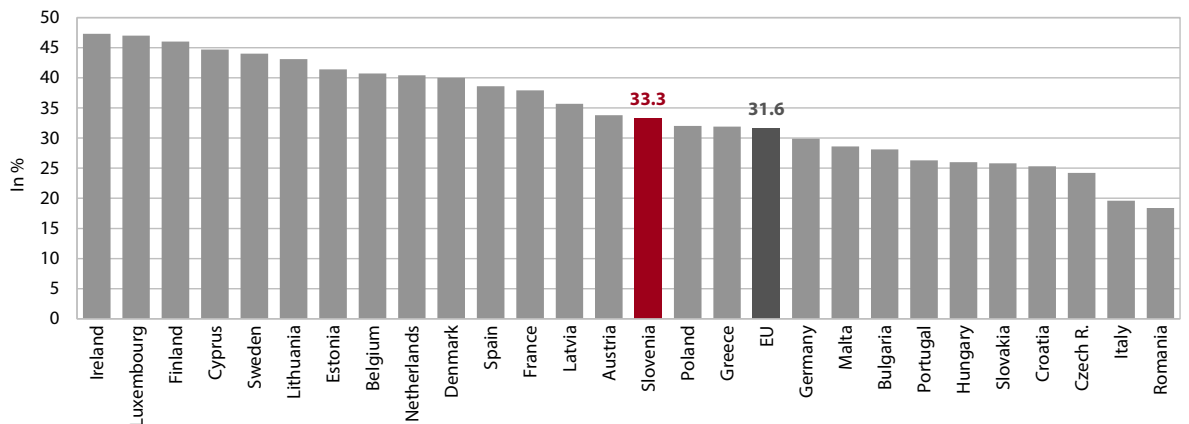
**In 2008–2019, the share of employees with tertiary education also increased, including the share of tertiary education in occupations for which low or secondary education is sufficient.** The share of employees with tertiary education has been higher than the EU average in recent years;<sup>1</sup> in most private sector activities it is lower than in the public sector<sup>2</sup>. With the increase in the share of employees with tertiary education, the share of tertiary educated people (20–64 years) also increased in 2008–2019 in occupations for which basic or upper secondary education is sufficient, in 2019 amounting to 16.0% (2008: 7.1 %). It increased more in private sector activities, where it was also higher than in the public sector. This, in addition to the fact that there is a lack of certain tertiary education professionals in the labour market (ESS, 2020b), indicates a lack of coordination between tertiary education and the needs of society and the economy.

Share of population with tertiary education, in %

aged	2005	2008	2009	2010	2012	2013	2014	2015	2016	2017	2018	2019	SDS 2030 target
Slovenia													
25-64	20.2	22.6	23.3	23.7	26.4	27.9	28.6	30.2	30.7	32.5	32.5	33.3	35.0
30-34	24.6	30.9	31.6	34.8	39.2	40.1	41.0	43.4	44.2	46.4	42.7	44.9	
EU													
25-64	21.5	23.1	23.9	24.6	26.2	27.1	27.7	28.5	29.1	29.9	30.7	31.6	
30-34	27.2	30.1	31.1	32.6	34.5	35.6	36.5	37.3	37.8	38.6	39.4	40.3	

Source: Eurostat, 2021.

Figure: Share of the population aged 25–64 with tertiary education, 2019



Source: Eurostat, 2021.

<sup>1</sup> The share of employees with tertiary education in Slovenia in 2019 was 38.9% (EU: 38.4%). It was higher in all activities except manufacturing, accommodation and food service activities, construction and other service activities.

<sup>2</sup> In 2019, it was the highest in education, and low in construction and manufacturing, in both activities lower than the EU average.

Enrolment in upper secondary and tertiary education2.2

**The number of young people enrolled in upper secondary education is declining due to demographic reasons.** In 2008/2009–2019/2020, it decreased by 16.9%, to a greater extent in general upper secondary than in vocational and technical education. As a result, the potential number of young people for direct enrolment in tertiary education and the supply of young people with upper secondary education in the labour market decreased. Although the share of those enrolled in vocational and professional programmes increased in 2008/2009–2019/2020 and is higher than the EU average, it has been difficult for employers to find suitable staff for many years. In our opinion, the latter is related to the low reputation of these professions, which is established by Cedefop (2017), and consequently the decisions of young people to enrol in tertiary education, which also allows a great transition from vocational to tertiary education.<sup>1</sup> At the time of the COVID-19 epidemic, the implementation of safeguards made it difficult to acquire the practical skills of the CPI (2020). In a few years, according to demographic projections, the number of those enrolled in upper secondary education is expected to start growing again, and this will increase the potential supply of future labour force.

**In the long run, the number of those enrolled in tertiary education has also decreased.** It increased

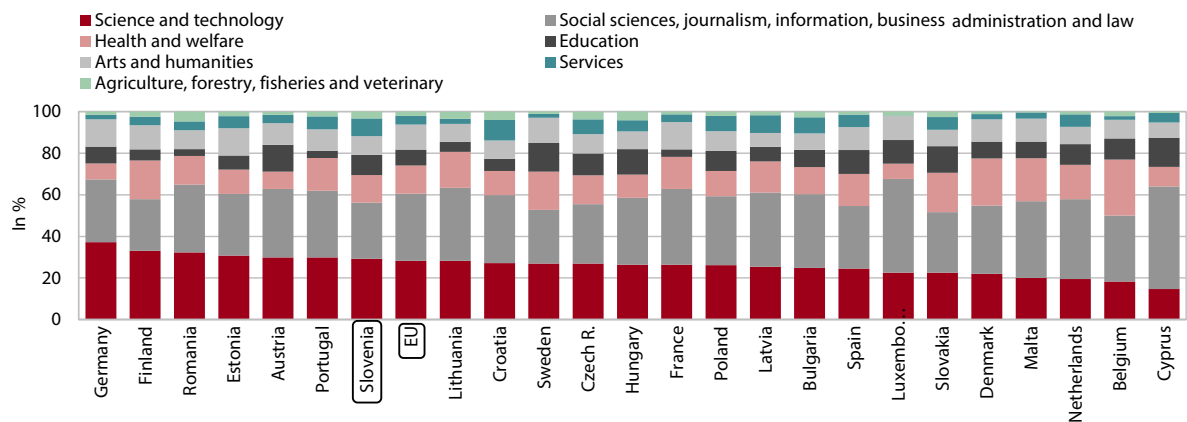
in the 2019/2020 school year but was still about a third lower than in the 2008/2009 school year, so we estimate that the number of graduates will decrease in the coming years (see Indicator 2.3). In 2012/2013–2019/2020, it decreased by more than a third in the social sciences, and thus their share in the structure of enrolled students also decreased. The latter increased the most in health and social security, where in 2018 it was close to the EU average, but the number of enrolled, despite the growth in recent years, does not reach the number from the school year 2012/2013 and lags behind the needs. The share of those enrolled in science and technology has also increased, but with a decrease in the number of students enrolled due to smaller generations, it is also not meeting demand. In order to meet the needs of society and the economy, it is necessary to strengthen the cooperation of higher education institutions with the economy, increase the number of enrolment places in programmes where the supply of staff is lower than demand, and encourage the enrolment of young people in these programmes. The harmonisation of enrolment with needs is made possible by the system for monitoring the employability of higher education graduates, which was established at the Ministry of Education, Science and Sport, and in the future will also be by the emerging platform for forecasting competency needs.

Table: Structure of young people<sup>1</sup> enrolled in upper secondary education, by types of educational programmes, in %

		2005	2008	2010	2011	2012	2013	2014	2015	2016	2017	2018
Slovenia	Total	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	40.7	40.1	39.7	38.4	37.5	36.4	35.6	35.3
	Vocational programmes	60.9	58.9	58.8	59.3	59.9	60.3	61.6	62.5	63.6	64.4	64.7
EU	Total	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	47.2	47.6	50.4	51.2	51.0	51.6	57.5	57.2
	Vocational programmes	55.9	53.5	53.2	52.8	52.4	49.6	48.8	49.0	48.4	42.5	42.8

Sources: Eurostat, 2021; SURS, 2021. Note: <sup>1</sup> Full-time students.

Figure: Number of students enrolled in tertiary education, structure by field of education, 2018



Source: Eurostat, 2020.

<sup>1</sup> Direct enrolment in tertiary education is provided by all types of educational programmes, except for lower and secondary vocational education.



Tertiary education graduates

2.3

The number of tertiary education graduates decreased in 2019 and was one of the lowest in the last ten years. In 2012–2019, it decreased the most in the social sciences, including their share in the structure of graduates, which strengthened the most in education.<sup>1</sup> The share of health and social security graduates also increased, but in 2018 it was below the EU average, and their number has been declining in the last few years, in contrast to the growing needs of society due to demographic changes and, last but not least, the COVID-19 epidemic. The share of science and technology graduates also increased and was above the EU average in 2018, but their number in 2019 was lower than the peak reached in 2012 and lagged behind labour market needs. In our estimation, the number of graduates will decrease in the future due to demographic changes (smaller generations), as will the number of graduates enrolled in recent years and thus their supply on the labour market. Therefore, it is crucial to increase the number of enrolment places in programmes or for the professions for which the needs will grow the most and to update study programmes with content that will address future challenges (automation etc.). Among tertiary education graduates, 60% are women, and their share in all fields of education except science and technology is higher than that of men.

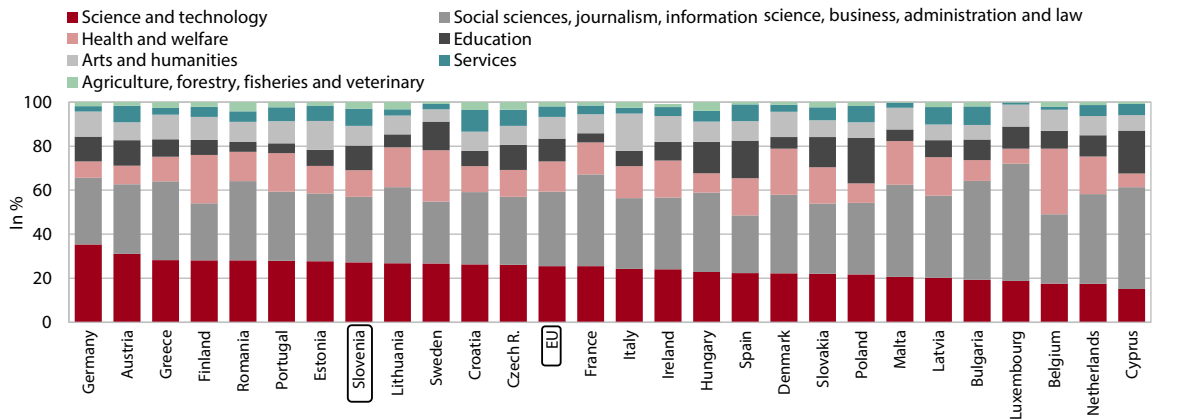
The number of new PhDs in 2019 was one of the lowest in 2009–2019. It increased in 2019,<sup>2</sup> expressed per 1,000 population aged 25–34, and in 2018, at 1.8, was close to the EU average (1.9), though lower than in the leading and strong innovators.<sup>3</sup> Such trends were related to the decrease in the number of those enrolled in doctoral studies from the school year 2012/2013 to 2015/2016, which could be attributed to the temporary suspension of co-financing of doctoral studies from public sources,<sup>4</sup> years of reduced funding under the Young Researchers Programme, the abolition of the Young Researchers in Economics programme, less interest in enrolling in doctoral studies during the previous global financial crisis, and demographic changes (reduction of generations for doctoral enrolment). Such developments have adversely affected the country's innovation potential. In our assessment, with the increase in the number of those enrolled in doctoral studies from the school year 2016/2017 onwards, the number of new doctors of science could increase again in the coming years, including doctors of science and technology, which are essential for innovation of companies.

Table: Number of tertiary education graduates, per million inhabitants

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Slovenia	8566.5	8907.4	9621.0	9980.1	10237.4	9313.6	9133.1	9031.6	15002.0	7966.5	8070.1	7737.0
EU	8187.1	7917.6	8417.8	9232.6	7634.6	8932.5	8958.7	8908.4	8883.1	8957.3	8932.3	N/A

Source: Eurostat, 2021.

Figure: Structure of tertiary education graduates by field of study, 2018



Source: Eurostat, 2021.

<sup>1</sup> The field of education includes educational sciences and teacher education.  
<sup>2</sup> The exception was 2016, when their number increased significantly due to the completion of old (pre-Bologna) study programmes.  
<sup>3</sup> According to the EII (European Innovation Index) 2020, the leading innovation countries are Sweden, Finland, Denmark, the Netherlands and Luxembourg, with strong innovator countries including Belgium, Germany, Austria, Ireland, France, Estonia and Portugal.  
<sup>4</sup> According to the Decree on the co-financing of doctoral studies from 2010, doctoral studies are co-financed on the basis of a public tender, but this co-financing was not available in 2013–2015. The doctoral study of young researchers was financed, however.

## 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<sup>1</sup> survey, all three types of literacy, which are an indirect indicator of quality, achieved a higher score than the EU average. The SDS target (by 2030), which is to be ranked in the top quarter of EU Member States, was achieved in mathematics and science. Between 2015 and 2018, achievements in science and especially in reading deteriorated, while in mathematics they remained roughly the same. 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%. Slovenia has achieved this goal only in science.<sup>2</sup> The above-average results of 15-year-olds (in points) were mainly influenced<sup>3</sup> by good human and material resources.<sup>4</sup>

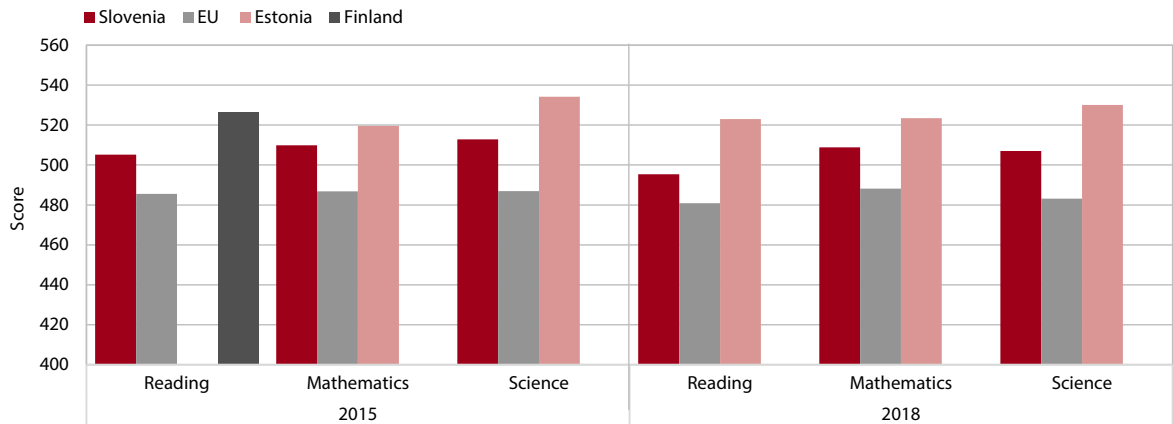
**Inequalities in the learning achievements of 15-year-olds increased between 2015 and 2018.** In 2018, girls achieved better results (in points) than boys in reading and science and the same as boys in mathematics. Fifteen-year-olds with the best socio-economic situation performed better than their peers with the worst socio-economic situation; the difference between them was smaller than the EU average but increased between 2015 and 2018. Pupils from abroad performed worse in reading than locals, the difference between them being larger than the EU average<sup>5</sup>.

**Table: Slovenia's rankings in science, mathematics and reading in comparison with 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	

Source: PISA 2018, 2015, 2012, 2009 and 2006 (OECD, 2019a). Note. The PISA survey has been conducted in Slovenia since 2006.

**Figure: Average performance of 15-year-olds in mathematics, science and reading (PISA)**



Source: OECD (PISA 2015 and PISA 2018).

Notes: <sup>1</sup> An unweighted average is shown for the EU. <sup>2</sup> For each type of literacy, the data for the country that achieved the best value in the EU is shown.

<sup>1</sup> PISA (Programme for International Student Assessment) is an international survey on reading, mathematical and scientific literacy conducted under the auspices of the OECD. It covers 15-year-old students regardless of the type of school they attend. The survey is carried out in triennial cycles. Its purpose is to gather data on the competencies of students that are needed in professional and private lives and are important for both individuals and society.

<sup>2</sup> In 2018, it was 17.9% in reading, 16.4% in mathematical and 14.6% in science.

<sup>3</sup> Material sources are textbooks, library materials, laboratory equipment, etc.

<sup>4</sup> In Slovenia, many teachers have a professional exam, and the ratio between the number of students and the number of teaching staff was low.

<sup>5</sup> Data for performance in mathematics and science are not available.

Education expenditure

2.5

In 2019, public<sup>1</sup> and private expenditure on education (as a % of GDP) were at one of the lowest levels in the last ten years and, according to data for 2017, also lower than the international average. Public expenditure as a share of GDP has been on the decline since 2012, mainly due to austerity measures and changes in social legislation (see also IMAD, 2019), but also for demographic reasons and due to the rapid GDP growth since 2014. In 2018, expenditures increased due to higher transfers to households/students; in 2019, they remained almost the same (4.65% of GDP)<sup>2</sup> as in the previous year and among the lowest in 2009–2019. Over the last ten years, expenditure has fallen the most at tertiary and upper secondary education levels. Public expenditure on education in 2017 (latest international data) was lower than the EU average of OECD countries (EU-23) and much lower than in economically highly developed countries (Denmark, Sweden, Belgium

and Finland), lagging behind the most at the tertiary level. Private expenditure on education also decreased in 2009–2019, amounting to 0.57% of GDP in 2018; according to data for 2017, it was slightly below the EU-23 average (0.64% of GDP).

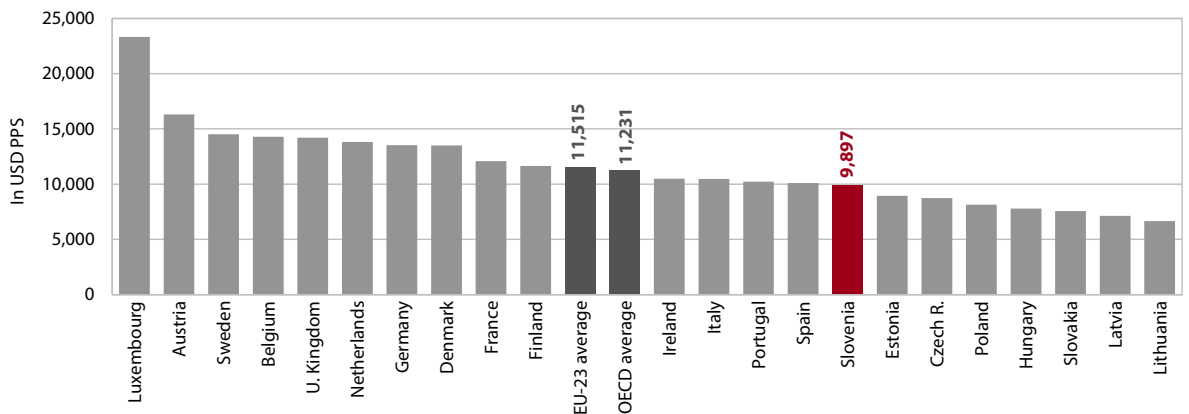
Although expenditure (public<sup>3</sup> and private) per participant increased in 2009–2019, it was still low internationally. In 2017, for which internationally comparable data are available, it only exceeded the average of EU Member States that are members of the OECD (EU-23) at the lower secondary level (in Slovenia this includes the third triad of basic schools). It lagged the most at the tertiary and upper secondary school level, where the participation of young people in education is high and public and private expenditures are low, which limits the possibilities for raising the quality of education and, consequently, future human capital.

Table: Total public expenditure on education as a share of GDP, in %

	2005	2008	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Slovenia	5.63	5.11	5.56	5.57	5.33	5.08	4.95	4.61	4.51	4.49	4.66	4.65
EU-23	5.37	5.35	5.59	5.62	5.20	5.31	5.22	4.88	4.78	4.76	n. p.	n. p.

Sources: Eurostat; SURS, 2019; calculations by IMAD.  
Note: N/A – data not available.

Figure: Expenditure (public and private) on educational institutions per participant<sup>1</sup>, 2017



Source: (OECD, 2020a).  
Note: <sup>1</sup> Including primary, secondary and tertiary levels of education. The EU-23 figure includes the United Kingdom.

<sup>1</sup> Total public expenditure on education includes total budget expenditure on formal tertiary education of young people and adults at the state and local levels. It includes public expenditure on educational institutions and transfers to households (scholarships, subsidised meals, travel tickets, accommodation, textbooks, etc.).  
<sup>2</sup> Excluding the first age group of the pre-school level of education. According to the international Standard Classification of Education (ISCED) 2011, which also includes this group, public expenditure on education totalled 4.95% of GDP in 2018.  
<sup>3</sup> Public expenditure does not include transfers to students/households.

Participation in lifelong learning

2.6

The participation of adults (25–64 years) in lifelong learning<sup>1</sup> has declined since the 2010 peak and slipped below the EU average for the first time in the second quarter of 2020. In 2019, it stood at 11.2% (EU: 10.8%), and with a decrease over the past decade, it has moved far from the goal of the Strategic Framework for European Cooperation in Education and Training by 2020 (15%) and even more from the SDS 2030 target (19%). It also lagged far behind the more developed northern European countries (Sweden, Finland and Denmark). Particularly problematic is the low participation of the low-educated, the elderly, men and immigrants. Among the regions, it was the highest in Osrednjeslovenska and the lowest in Pomurska, Posavska and Jugovzhodna Slovenija. In the second quarter of 2020, when Slovenia was hit by the first wave of the COVID-19 epidemic, the participation of adults in lifelong learning further declined sharply,<sup>2</sup> across all regions. The multi-year decline in participation in lifelong learning is extremely unfavourable, as it has a negative impact on employment opportunities and the social inclusion of adults.

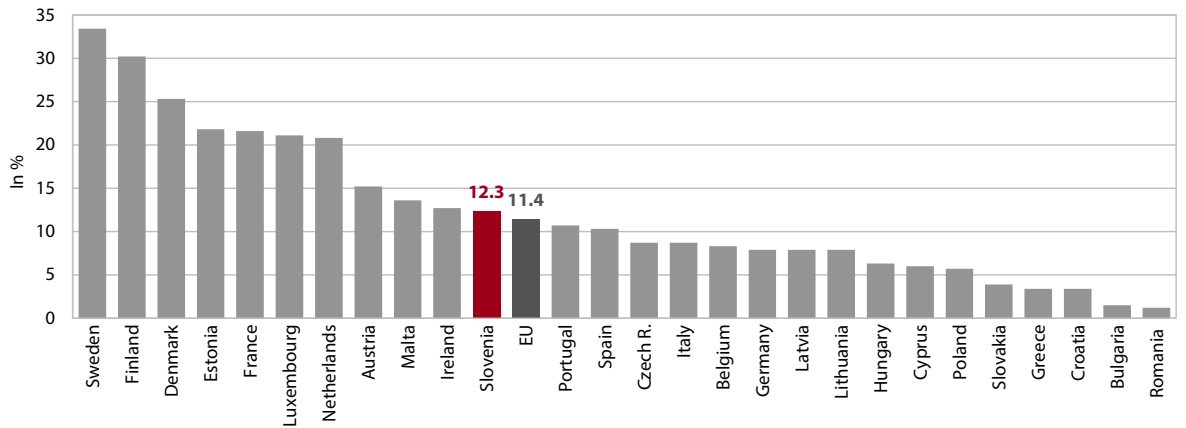
Broken down by activity status, in 2019, participation in lifelong learning was the highest among employed people, although it decreased the most in this group over the 2008–2019 period. It was higher than the EU average only in this segment.<sup>3</sup> Differences in participation in lifelong learning also exist among the employed. In the private sector, where the share of the low-educated is higher, it was lower than in the public sector, with low participation in construction and manufacturing for many years and in small enterprises (with a maximum of ten employees). In 2008–2019, participation in lifelong learning decreased the most among employed people, especially in information and communication activities. Also, in the second quarter of 2020, the participation both of the employed and of the unemployed and non-active in lifelong learning decreased.<sup>4</sup> Adverse trends are slowing down the development of human capital and the raising of the competitiveness of the economy, the adaptability of employees to changes in the workplace and the labour market due to the COVID-19 epidemic, the expansion of Industry 4.0, etc.

Table: Participation of adults aged 25–64 in lifelong learning, in %

	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	SDS 2030 target
Slovenia	15.3	14.3	14.8	16.4	16.0	13.8	12.5	12.1	11.9	11.6	12.0	11.4	11.2	19 %
EU	7.7	8.0	7.9	7.8	8.1	8.2	9.9	10.1	10.1	10.3	10.4	10.6	10.8	

Source: Eurostat, 2021.

Figure: Participation of employed persons (aged 25–64) in lifelong learning, 2019



Source: Eurostat, 2021.

<sup>1</sup> Lifelong learning includes formal and non-formal education.  
<sup>2</sup> In the second quarter of 2020, the participation rate of adults in lifelong learning in Slovenia totalled 5.6% (EU: 7.9%).  
<sup>3</sup> In 2019, the participation rate in lifelong learning for the employed was 12.3% (EU: 11.4%); the participation rate for the unemployed 9.7% (EU: 10.7%) and the participation rate for the non-active population 6.5% (EU: 8.8%).  
<sup>4</sup> In the second quarter of 2020, the participation rate of the unemployed in lifelong learning was 9.3%, the employed 7.9% and the non-active population 1.9%.

Attendance at cultural events

2.7

**The average attendance at cultural events per capita<sup>1</sup> has been about the same in the last five years.** It was the highest in 2012, owing to many performances hosted by Maribor, the European Capital of Culture that year. In the remaining years it was around 5–6 visits per capita, which is still quite far from the SDS 2030 target. In 2009–2019, the total attendance at cultural events mostly increased. With a significant increase in the number of cultural events, attendance at cultural events in houses of culture and cultural centres increased the most, and in 2019 they also recorded the highest number of visits among all types of cultural institutions. Higher attendance was also recorded for events performed by cultural associations, this being associated with the spread of amateur culture activities, increasing number of cultural societies, their membership and the number of events held. Favourable trends in the field of amateur culture have had a positive impact on the accessibility of cultural content at the local level and on networking and cooperation between people. In 2009–2019, the number of visits to theatres, opera houses and museums also increased, with the latter trying to attract a larger number of visitors through various activities. Most unfavourable, however, were the trends of visits to

musical institutions and cinemas. Due to the COVID-19 epidemic and the non-operation of cultural activities, attendance at cultural events is estimated to have fallen sharply in 2020.

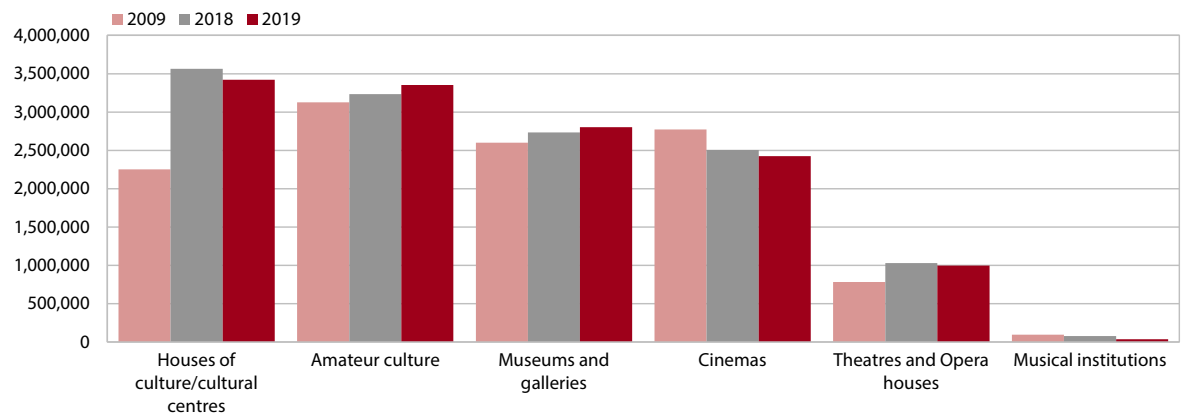
**Cultural institutions carry out many activities enriching the cultural offer.** The number of events held by institutions with stage activity<sup>2</sup> fluctuated in 2016–2019; in 2019 it was 24,900. By type of activity, as in previous years, in 2019 there were the most film and video screenings, followed by events showing dramatic and other theatre works, and puppet theatre events, while the least were events of contemporary and composed music, ballet events, and events of intermedia art. The accessibility of culture is increased, among other things, by free events, of which there was a good fifth in 2019, in addition to which institutions with stage activities also carried out numerous cultural and artistic educational activities.<sup>3</sup> It should be noted that some groups of the population (persons with reduced mobility and sensory impairments) face obstacles in accessing institutions<sup>4</sup> and thus culture. In the field of film production, in 2019, the number of produced cinematographic films<sup>5</sup> was the second highest in 2014–2019.

Table: Average attendance at cultural events per capita

	2005	2008	2009	2010	2012	2013	2014	2015	2016	2017	2018	2019	SDS 2030 target
Slovenija	5.0	5.4	5.7	6.0	9.6	6.2	5.9	6.3	6.2	6.3	6.3	6.2	8.0

Sources: SURS, 2021; Republic of Slovenia Public Fund for Cultural Activities, 2021; Slovenian Film Centre, 2021; calculations by IMAD.

Figure: Attendance at cultural events, Slovenia, 2009, 2018 and 2019



Sources: SURS, 2021; Republic of Slovenia Public Fund for Cultural Activities, 2021; Slovenian Film Centre, 2021. Note: in 2016, SURS statistics were revised.

<sup>1</sup> In 2016, due to an extensive revision in the methodology, there was a break in the data series for the following groups: (i) museums, galleries or exhibition grounds, (ii) theatres, (iii) orchestras or choirs, and (iv) houses of culture and cultural centres. Since 2016, data on cultural performances cover: (i) museums and galleries, (ii) theatres and opera houses, (iii) musical institutions, (iv) cinemas, (v) houses of culture and cultural centres, and (vi) amateur culture.

<sup>2</sup> We also include houses of culture and cultural centres, theatres and operas and musical institutions.

<sup>3</sup> In 2017, institutions with stage activity performed 5,807 educational programmes, which were attended by 528,000 people.

<sup>4</sup> In 2019, more than half of the institutions with stage activity were fully equipped for people with reduced mobility and a good tenth for those with sensory disabilities.

<sup>5</sup> Included are also those produced feature and short films that were shown to the public for the first time.

Share of cultural events held abroad

2.8

In 2019, the share of cultural events held abroad<sup>1</sup> decreased after a few years of increase, and an even greater decline is expected in 2020 due to the impact of the COVID-19 epidemic. Touring is an indirect indicator of the quality of cultural production, as invitations to perform abroad generally signify recognition of good work. Developments in this area are difficult to assess because of the short time series, as data are only available for 2015–2019 (see note under the table). In 2019, the share of cultural events held abroad was 3.9%. It has decreased compared to the previous year, but is still above the 2030 SDS target. The share of tours in museums has been declining for several years, while in stage-related activity only in the last year. Among cultural events held abroad, in 2019, those in the EU accounted for about 80%, which indicates the geographical attachment of Slovenian culture to this area. In our assessment, due to restrictive measures to curb the COVID-19 epidemic in 2020, the number of cultural events held abroad has further decreased.

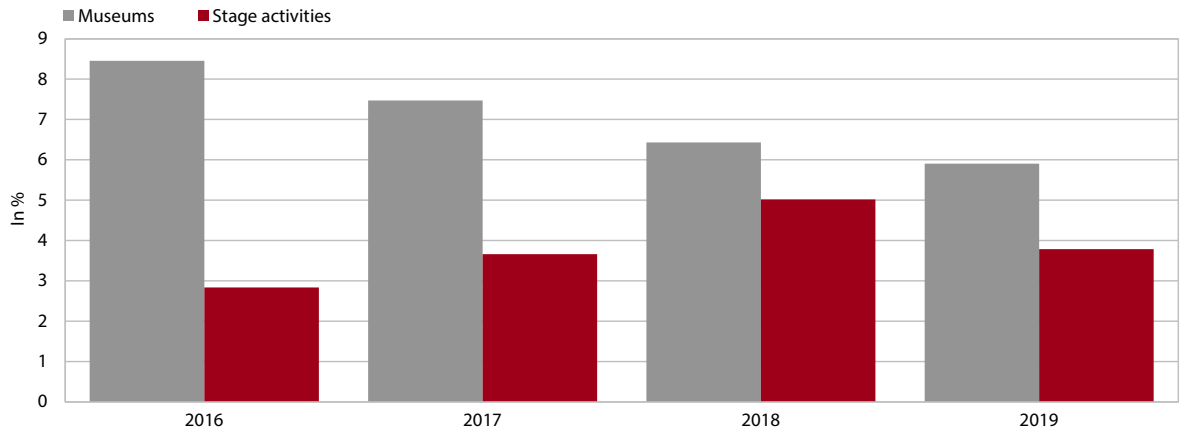
The COVID-19 epidemic had a negative impact on hosting foreign events in Slovenia and on cultural production in Slovenia, which is essential for the promotion and recognition of culture abroad. In 2019, the number of guest events from abroad was the second highest in 2016–2019 in institutions with stage activity and the lowest in museums. Visiting events from abroad enrich the offer of cultural events in Slovenia and show cooperation with cultural institutions from abroad, which diminished in 2020 due to the COVID-19 epidemic. Cultural production in Slovenia was also curtailed; many cultural creators, especially in music, the performing arts, and film and audio-visual activities experienced a decline in orders (Matjaž, Černič and Kosi, 2020b) and filmmakers a delay caused by the state in fulfilling its contractual obligations.

Table: Share of cultural events held abroad of the total number of cultural events, in %

	2015	2016	2017	2018	2019	SDS 2030 target
Slovenia	2.8 (assessment) <sup>1</sup>	3.1	3.9	5.1	3.9	3.5

Source: SURS, 2021.  
Note: <sup>1</sup> Due to the revision of culture statistics, a break in the data series occurred in 2016, so the data for 2015 are estimated or adapted to the methodology valid for the surveys “Activity of cultural centres, theatres, operas and professional orchestras and choirs” (KU-ODER) and “Activity of museum and galleries” (KU-MZ) for 2016. The assessment was made by SURS. Until 2015, there was no data for cultural centres. The sources of data were the statistical surveys “Activity of museums, museum collections, special museums for art heritage and art exhibition grounds” (KU-MZ), “Activity of theatres, opera and ballet” (KU-GL) and “Activity of professional orchestras and choirs” (KU-FO).

Figure: Share of cultural events held abroad, Slovenia



Source: SURS, 2021.  
Note: Stage activity includes (i) theatres, (ii) professional orchestras or choirs and opera, and (iii) houses of culture/cultural centres, cultural institutions and other cultural organisers.

<sup>1</sup> The indicator of the share of events held on tours abroad in the total number of events is the ratio of events held outside Slovenia to all events held by given 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 (iii) 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

#### A healthy and active life

- 3.1 Healthy life years
- 3.2 The Gender Equality Index
- 3.3 Life expectancy
- 3.4 Unmet needs for healthcare
- 3.5 Avoidable mortality
- 3.6 Healthcare expenditure
- 3.7 Expenditure on long-term care
- 3.8 Overweight and obesity



#### A decent life for all

- 3.9 At-risk-of-social-exclusion rate
- 3.10 Inequality of income distribution
- 3.11 Experience of discrimination
- 3.12 Median equivalised disposable income
- 3.13 Life satisfaction
- 3.14 Social protection expenditure
- 3.15 Housing deprivation rate
- 3.16 Material and income deprivation



#### An inclusive labour market and quality jobs

- 3.17 Employment rate
- 3.18 In-work at-risk-of-poverty rate
- 3.19 Unemployment and long-term unemployment rates
- 3.20 Precarious and temporary employment
- 3.21 Absence from work due to illness





Healthy life years

3.1

**According to the latest data, Slovenia's lag behind the EU as regards healthy life expectancy at birth<sup>1</sup> is slightly smaller than in the past.** The SURS (2019) analysis showed that the very low value of the healthy life years indicator in Slovenia in the past was mainly related to inadequate translation and the method of surveying. The latest data, for 2019, already reflect changes in the survey method, so the results for Slovenia have significantly improved, and in the future a change in the translation of the question is expected, so that it will more accurately reflect the content of the question. The indicator for 2019 shows that a person born in Slovenia can expect 60.9 healthy life years at birth (EU average: 65 years). Healthy life expectancy at the age of 65 is only 8.6 years on average in Slovenia (EU: 10.3 years). According to the latest results, the number of healthy life years is higher for women than for men, which is similar to the situation in most EU Member States (previously it was the opposite). Increasing the number of healthy life years, which requires higher investment in preventive care, is expected to make a significant contribution not

only to the extension of individual's activity, but also to slower growth in health and long-term care expenditure in the future.

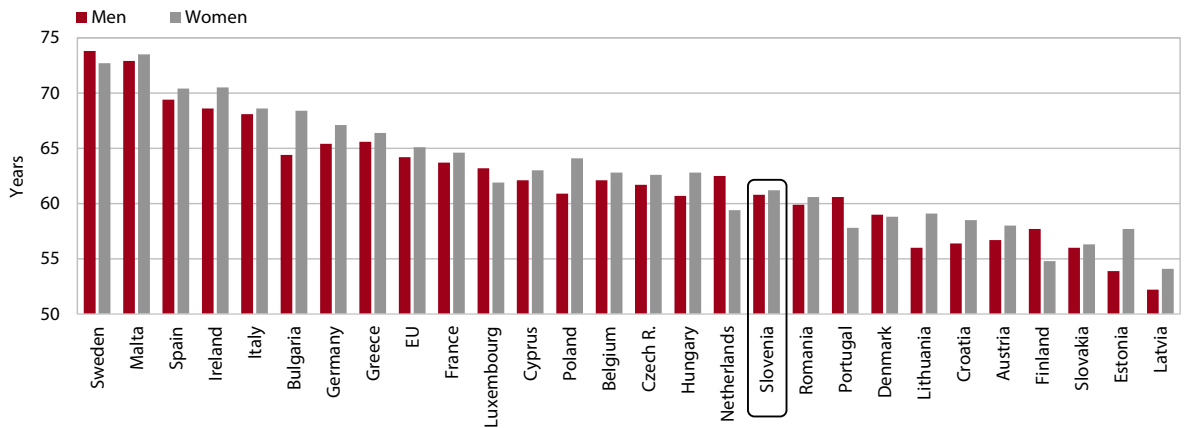
**According to the latest data, the lag behind the EU in the ratio between healthy life years and life expectancy is also significantly smaller.<sup>2</sup>** In Slovenia, we had an average of 74.8% healthy life years in 2019, which is still below the EU average (79.6%) but significantly better than in previous years. Slovenia's gap with the EU average is still mainly due to the lower number of healthy life years. The smaller share of years that a person on average spends healthy means more pressure on social protection systems due to early retirement and greater demand for health and long-term care services. The COVID-19 epidemic will bring about major changes in the indicator in the coming years. We can expect that the many deaths will lead to a decrease in life expectancy, but it is difficult to predict what the negative impact will be on years of healthy living.

Table: Expected healthy life years at birth and the proportion of healthy life years in life expectancy

	Number of expected healthy life years at birth								Share of healthy life years in LE**, in %					
	Women				Men				Women			Men		
	2010	2018	2019*	SDS 2030 target	2010	2018	2019*	SDS 2030 target	2010	2019	SDS 2030 target	2010	2019*	SDS 2030 target
Slovenia	54.6	54.6	61.2	64.5	53.4	56.3	60.8	64.5	65.7	72.4	75.0	69.8	77.3	80.0
EU	62.2	64.2	65.1		61.3	63.7	64.2		75.0	77.5		80.0	81.8	

Source: Eurostat, 2021.  
Notes: \* In 2019, there was a change in the survey approach in the EU-SILC survey, on the basis of which the healthy life expectancy indicator is calculated. \*\* LE – life expectancy.

Healthy life years expectancy at birth, 2019



Source: Eurostat, 2021.  
Note: Countries are ranked according to the average share of life spent healthy by men and women.

<sup>1</sup> 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. This is a composite indicator which combines mortality and health status data. The estimate of activity limitations is based on the Global Activity Limitation Indicator (GALI), which, within the EU-SILC survey, measures self-perceived limitations people have experienced, because of health problems, in carrying out their everyday activities for at least six months. In 2019, there was a change in the survey approach, so the result is better for Slovenia.  
<sup>2</sup> A decline in the ratio of healthy life years to life expectancy means a deterioration; an increase signifies an improvement.

The Gender Equality Index

3.2

In 2020, the gender equality index<sup>1</sup> for Slovenia was around the EU average. With a value of 67.7, Slovenia remained ranked 11<sup>th</sup> among EU Member States. It has advanced by 5 points since 2010, though its score has slightly fallen compared to 2017. In order to meet the SDS 2030 target (> 78), Slovenia should improve the index value by more than 10 points in 2020–2030.

In 2020, Slovenia again achieved the highest scores in the areas of health and money, while gender inequalities remain most pronounced in the areas of knowledge and power. There have been no significant changes in the field of health since 2010. Men more often than women consider that they are in good or very good health. On average, women live almost six years longer than men, but their number of healthy life years is lower. There were no major changes in the field of knowledge, where there is still a high gender gap in the share of tertiary educated people. Slovenia's progress in the areas of money and work is largely a

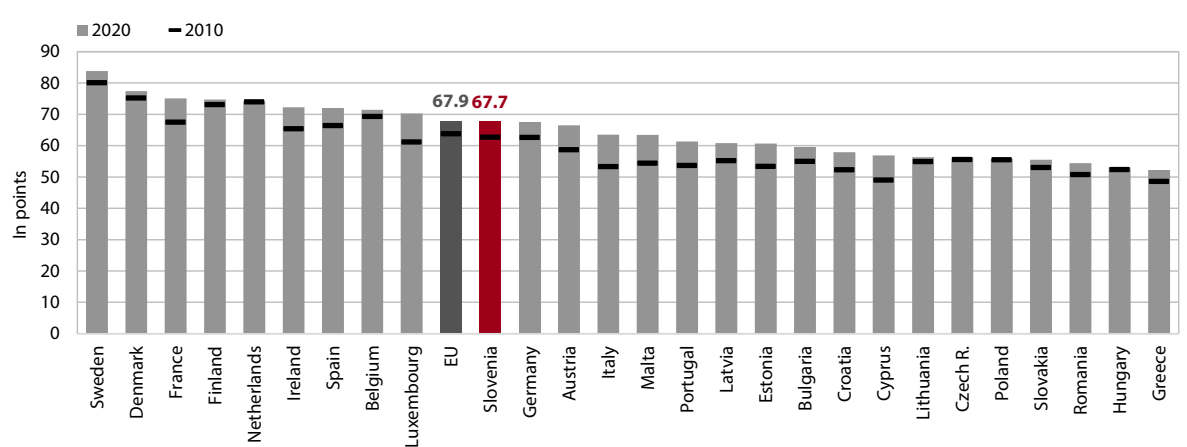
consequence of the narrowing of the gender gap in the employment rate. Gender inequality continues to be reflected, in particular, in the unequal concentration of women and men in different sectors<sup>2</sup> and in the volume of part-time employment (more women than men). The wage gap has increased in Slovenia, but it remains small compared to other EU Member States.<sup>3</sup> Women had more difficulty reconciling work and private lives and did more hours of unpaid work than men. Due to changes in electoral legislation (gender quotas on candidate lists), women's political participation has shown an increase since 2011.<sup>4</sup> The highest share of women in the Slovenian Parliament was in 2014 (38.2%), but after 2017 it decreased and, according to the latest data for 2020, is low (26.7%) (EIGE, 2020a). Various institutions and experts estimate that the COVID-19 pandemic and the response to it are exacerbating pre-existing gender inequalities (Eurofound, 2020a; EIGE, 2020c; UNDP, 2020; Blaskó et al., 2020).

Table: Gender Equality Index

	Slovenia						SDS 2030 target	EU					
	2005	2010	2012	2015	2019	2020		2005	2010	2012	2015	2019	2020
GEI	60.8	62.7	66.1	68.4	68.3	67.7	>78	62.0	63.8	65.0	66.2	67.4	67.9
Health	86.3	86.8	87.3	87.7	87.1	86.9		85.9	87.2	87.2	87.4	88.1	88.0
Money	77.7	80.3	81.3	81.6	82.4	83.0		73.9	78.4	78.4	79.6	80.4	80.6
Work	71.2	71.9	71.3	71.8	73.3	73.1		70.0	70.5	71.0	71.5	72.0	72.2
Time	73.4	68.3	72.4	72.9	72.9	72.9		66.7	66.3	68.9	65.7	65.7	65.7
Power	36.5	41.1	51.5	60.6	57.6	55.0		38.9	41.9	43.5	48.5	51.9	53.5
Knowledge	52.1	55.0	54.9	55.0	56.0	55.9		60.8	61.8	62.8	63.4	63.5	63.6

Source: EIGE, 2020a and 2020b. Note: The data for calculating the index for 2020 are mostly from 2018, for 2019 from 2017.

Figure: Gender Equality Index, 2010 and 2020



Source: EIGE, 2020a. Note: The data for calculating the index for 2020 are mostly from 2018.

<sup>1</sup> Based on 31 indicators, the Gender Equality Index measures progress and gaps between women and men in six areas (see table). Index with a value of 1 means complete inequality and 100 perfect equality. From 2019, the index is calculated on an annual basis. The data for the calculation of the index for 2020 mostly refer to 2018 (with the exception of, for example, the representation of the sexes in parliament, which are for 2020, or the time area, which are for 2015).

<sup>2</sup> More women are employed in education, health and social work, while men predominate in science, technology, mechanical engineering and mathematics (EIGE, 2019).

<sup>3</sup> From 0.9 in 2010 to 8.7% in 2018 (IMAD, 2021).

<sup>4</sup> The number changes after elections with regard to the number of women elected to parliament and, subsequently, their appointment to positions.

Life expectancy

3.3

**Life expectancy at birth<sup>1</sup> has been improving more slowly in recent years in Slovenia and the EU.** Since 2002<sup>2</sup>, life expectancy in Slovenia has increased by more than three months per year on average (by more than two months per year on average in the EU). The improvement can mainly be attributed to factors such as better socio-economic conditions, higher education, better healthcare and lifestyle choices (OECD, 2017b). Slovenia exceeded the EU average in 2011. However, after 2011, life expectancy gains slowed, mainly due to a slower decline in mortality rates for circulatory diseases, which had been the main reason for life expectancy gains in previous years (OECD, 2018b). Stronger flu seasons, which mainly affected the elderly (2014/2015, 2016/2017 and 2017/2018) also contributed to the slowdown (OECD/EU, 2020).

**No further increase in life expectancy is expected in the short term.** Due to the difficult flu season in Slovenia in 2019/2020 and the high excess mortality due to the COVID-19<sup>3</sup> epidemic in 2020, it is expected

that life expectancy will stagnate or even decrease in the coming years, especially among those aged 65 or over. In addition to direct deaths due to COVID-19, the number of indirect deaths due to inaccessibility to preventive and emergency health services and psychosocial assistance may also increase (OECD/EU, 2020).

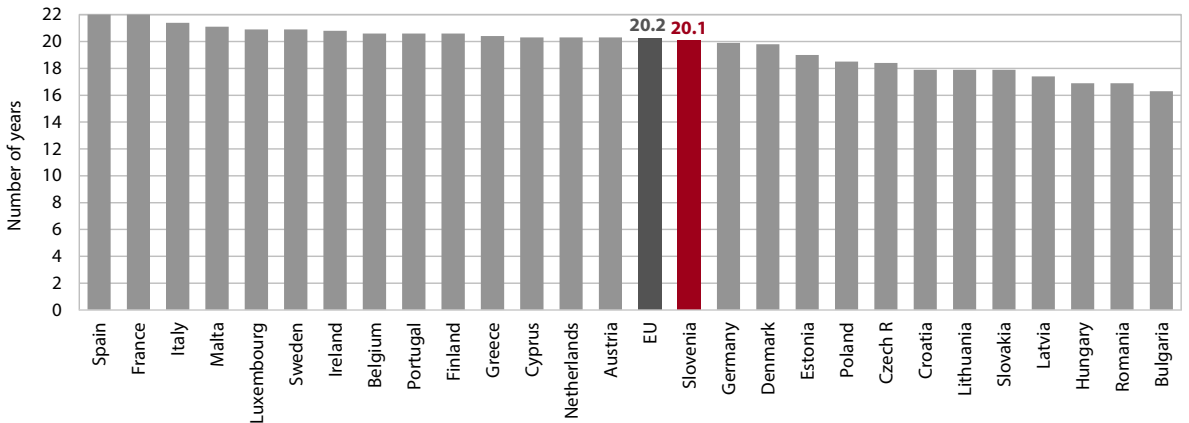
**In 2019, life expectancy was higher than in 2011 in all Slovenian regions.<sup>4</sup>** Women in the Obalno-kraška region (84.8 years) and men in the Osrednjeslovenska region (79.9 years) had the longest life expectancy at birth. In the Zahodna Slovenija region, life expectancy is longer in both sexes than in the Vzhodna Slovenija region: for women by 0.6 years and for men by about two years. Regional disparities reflect a number of socio-economic factors: income security, social protection, inequalities in health, education, living conditions, etc. The importance of adequate housing and access to health services has increased with the COVID-19 epidemic, as poor living conditions and insufficient access to health services increase mortality.

Table: Life expectancy at birth, in years

		2000	2005	2008	2010	2012	2014	2015	2016	2017	2018	2019
Slovenia	Total	76.2	77.5	79.1	79.8	80.3	81.2	80.9	81.2	81.2	81.5	81.6
	Male	72.2	73.9	75.5	76.4	77.1	78.2	77.8	78.2	78.2	78.2	78.7
	Female	79.9	80.9	82.6	83.1	83.3	84.1	83.9	84.3	84.0	84.4	84.5
EU	Total	N/A	78.4	79.3	79.8	80.2	80.8	80.5	80.9	80.9	81.0	81.3
	Male	N/A	75.1	76.1	76.7	77.1	77.9	77.7	78.0	78.1	78.2	78.5
	Female	N/A	81.5	82.4	82.9	83.1	83.7	83.3	83.7	83.6	83.7	84.0

Source: Eurostat, 2021. Note: N/A – data not available.

Figure: Life expectancy at the age of 65 years, 2019



Source: Eurostat, 2021.

<sup>1</sup> Life expectancy is 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). SURS does not publish data on total life expectancy. In addition, its data on life expectancy by gender differ slightly from those published by Eurostat due to different methodologies used. SURS data for 2019 show a further increase in life expectancy for both sexes.

<sup>2</sup> Since data for EU became available.

<sup>3</sup> In 2020, 2,991 people died with COVID-19, 95% of whom were over 65 years of age (NIJZ, 2021a). Excess mortality (the ratio between the number of deaths due to all causes of death in 2020 compared to the average for the period 2015–2019) was 18.1% (Šter and Žnidarič, 2021; see also Section 3.1).

<sup>4</sup> Regional data on life expectancy have been available from 2011.

Unmet needs for healthcare

3.4

In 2019, 2.9% of the population in Slovenia had unmet needs for medical examinations (EU: 1.7%), the main reason being waiting times.<sup>1</sup> Differences between countries are large both in the share of the population and in the reasons for unmet needs and income gap. In Slovenia, waiting times are the main problem, while for financial reasons, there are almost no unmet needs for medical examinations (see table). In 2020, due to the COVID-19 epidemic and the cancellation of many health activities, unmet needs undoubtedly increased sharply, as accessibility was severely hampered. 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. The number of treatments in specialist ambulatory services decreased even more, by 20% (in imaging diagnostics by 15% and in inpatient treatments by 15%), which means that many patients did not receive treatment (HIIS, 2021a). As a result, the number of referrals issued and the number of people waiting has also decreased, but a rapid increase can be expected in waiting times after the end of the epidemic (see also Box 5 in Section 3.1).

**Unmet needs for dental care in Slovenia are also significantly higher than the EU average.** In 2019, unmet needs for dental care were reported by 3.7% of the population, which is more than the EU average

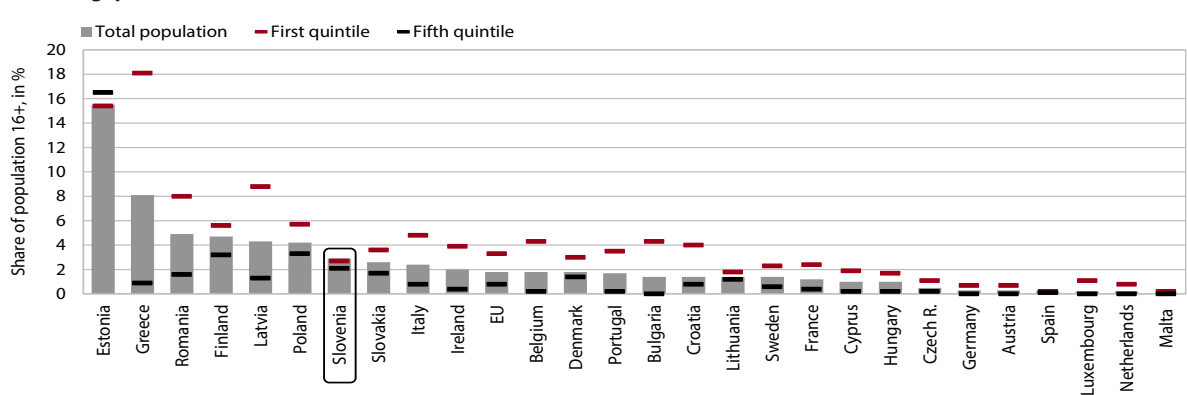
(2.8%). Unlike other Member States, in Slovenia the respondents do not report financial reasons but waiting times as the main reason for unmet needs. The latter is probably related to the fact that in Slovenia, adult dental care is also included in the healthcare benefits basket, which is covered partly by compulsory and partly by complementary health insurance, which is not the case for most EU Member States. However, in Slovenia this right is very limited by long waiting times, so as many as a quarter of the population do not have a chosen dentist (Pavlović, 2020). The OECD analysis (2020e) showed that in Slovenia the probability of a visit to the dentist for people with the same needs is almost 24 percentage points higher for higher-income individuals than for those with the lowest incomes. However, high income inequalities are mainly due to long waiting times, as individuals with higher income can finance a visit to a dentist outside the public network. The COVID-19 epidemic also had a strong impact on the availability of dental services, which were interrupted in the first wave, with the exception of emergency services; however, after the release of the measures and in the second wave, they were implemented to a limited extent due to strict security measures. According to the Health Insurance Institute of Slovenia, the realisation of the dental programme at the primary level decreased by 13% compared to 2019.

Table: Unmet needs for healthcare, share in the population aged 16 and over

In %		Waiting times			Waiting times, financial reasons and distance		
		2017	2018	2019	2017	2018	2019
For medical examinations	Slovenia	3.3	3.2	2.9	3.5	3.3	2.9
	EU	0.6	0.6	0.7	1.6	1.8	1.7
For dental examinations	Slovenia	2.9	3.0	3.4	3.8	3.6	3.7
	EU	0.3	0.2	0.3	2.9	2.9	2.8

Source: Eurostat, 2020. Note: according to EU-SILC survey.

Figure: Unmet needs for medical examinations due to waiting times, financial reasons or geographical distance, and the income gap, 2019



Source: Eurostat, 2020. Note: Data for Ireland, Italy and Slovakia are for 2018.

<sup>1</sup> As a basic indicator of access to healthcare, the ESSP uses a survey indicator of unmet needs for medical examination due to financial reasons, geographical distance or waiting times. The problem with the unmet needs indicator is partly that the surveys do not cover certain groups of the population (the homeless, some migrants and people living in institutional care). 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.



Avoidable mortality

3.5

**Avoidable mortality<sup>1</sup> dropped sharply between 2011 and 2016, deteriorating slightly again in 2017 but remaining above the EU average.** The rate of avoidable mortality, which consists of (i) preventable mortality and (ii) treatable mortality (avoidable by healthcare), improved by 43 persons per 100,000 inhabitants in 2011–2017 (latest available data), against an average of only 25 people in the EU. Slovenia very successful in reducing treatable mortality, which declined by 22% in six years (EU: 10%).

**Preventable mortality rose slightly again in 2017 and remained above the EU average.** In Slovenia, in 2017, 187 deaths per 100,000 inhabitants could have been avoided by successful public health measures and prevention (163 in the EU). Preventable mortality is strongly dependant on gender: ischemic heart disease, lung cancer, accidents, alcohol dependence or heavy episodic drinking and suicide are much more common in men (EC, 2019). Greater improvement can be achieved

by strengthening prevention at the primary level, expanding family medicine model practices and health-promotion centres, screening programmes, integrating health and long-term care, vaccination, and greater investment by employers in health.

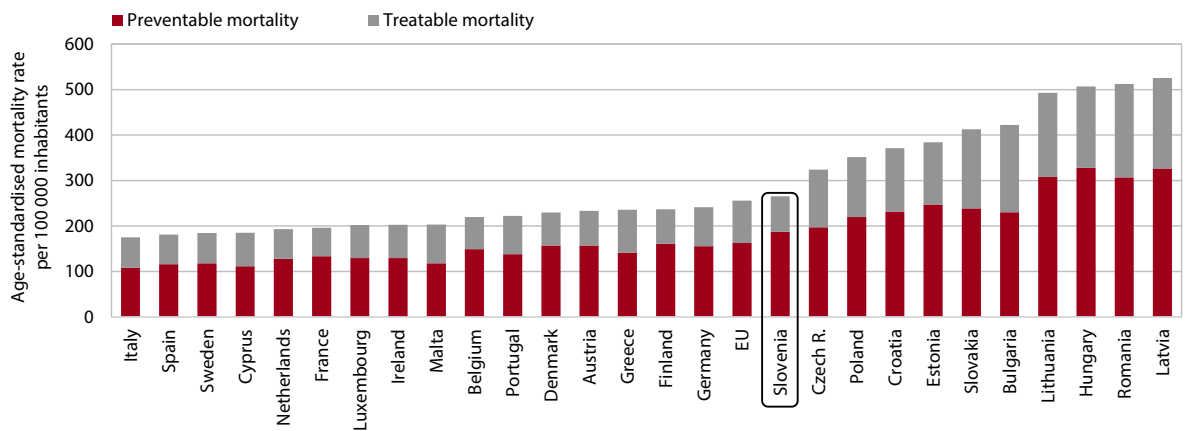
**The rate of treatable mortality decreased further in 2017 and was well below the EU average, which indicates relatively effective healthcare from the aspect of treatment.** In 2017, 78 people per 100,000 inhabitants died in Slovenia due to causes that could have been avoided through timely and effective healthcare (EU: 93 per 100,000). The largest proportion of deaths are due to ischemic heart disease and colon and rectal cancer, followed by strokes and breast cancer. France, the Netherlands, Spain, Italy and Sweden reached rates below 70 in 2017, mainly due to very low mortality from cardiovascular diseases. In all countries, the indicator is significantly worse for men than for women.

Table: Avoidable mortality, age-standardised rates per 100,000 inhabitants, 2011 to 2017

	Avoidable mortality			Preventable mortality			Treatable mortality		
	2011	2016	2017	2011	2016	2017	2011	2016	2017
Slovenia	309	264	265	209	184	187	101	80	78
EU	278	254	256	175	161	163	103	93	93

Source: Eurostat, 2021.

Figure: Avoidable mortality rates in EU Member States, 2017



Source: Eurostat, 2021.

<sup>1</sup> In 2019, the methodology for calculating the indicator of avoidable mortality was changed. The indicator is used to assess the performance of the healthcare system and consists of two indicators: 1. Preventable mortality, i.e. causes of death that can be avoided by prevention measures and 2. Treatable (previously amenable) mortality. The lists of both preventable and treatable causes of mortality were also changed in both indicators. 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, the age threshold used to define premature deaths is now 75 years (previously 65 years). For both indicators, the data series from 2011 to 2016 is available in accordance with the new methodology.

Healthcare expenditure

3.6

**Measured by total current health expenditure per capita, Slovenia's gap with the EU average has widened in the last decade.** During the global financial crisis, expenditure on healthcare in Slovenia dropped in real terms: the system was understaffed and financially limited and waiting times were too long. Nevertheless, real growth in total current health expenditure (hereinafter: CHE) in 2013–2019 averaged only 2.6% per year, lagging behind the growth of the EU average (3.0%). The relatively low growth in the economic boom period was due to the adjustment of HIIS expenditures to disposable revenues, which, despite high employment growth, increased more slowly than GDP growth, while part of revenues was used to create a reserve (which was almost completely used in 2020 due to the epidemic: see Box 5). In 2017–2019, the transmission of the financing of medical practitioners and traineeship to the state budget contributed to the additional revenues of the HIIS,<sup>1</sup> but this additional budgetary resource for the healthcare system was not sufficient. According to the

initial estimate, CHE per capita in 2019 reached 8.3% of GDP or EUR 2,185 PPS per capita, or only 85% of the EU average (EUR 2,572 PPS), which is the same lag behind the EU as in 2013. On the other hand, in the same period Slovenia increased its GDP per capita from 83% to 89% of the EU average.<sup>2</sup>

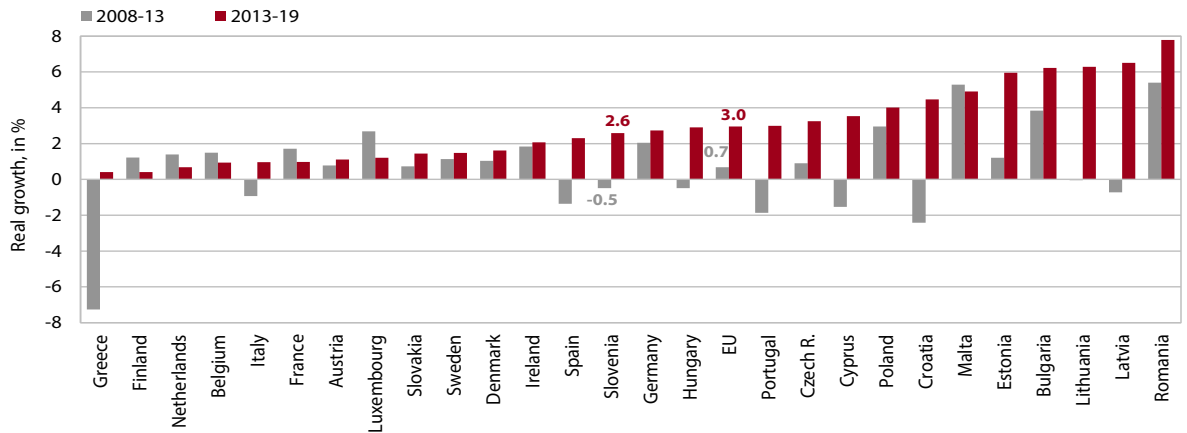
**In 2020, health expenditure related to the management of the COVID-19 epidemic was largely covered by the state budget.** According to the first preliminary estimate, the state budget<sup>3</sup> contributed EUR 578.6 million to current expenditure on healthcare in 2020 (in 2019: 127). In total current health expenditure, which reached EUR 4.7 billion, the share of budgetary resources (total state and local budget) in 2020 increased to as much as 13.4% of CHE (2019: 4.4%; 2018: 3.4%) and the share of total public health expenditure, which amounted to EUR 3.6 billion to 76.8% of CHE (HIIS, 2021b; see Box 5 in Section 3.1).

Table: Healthcare expenditure<sup>4</sup>

	Health expenditure, as a % of GDP				Public health expenditure, as a % of GDP**				Private health expenditure, as a share in current health expenditure, in %			Out-of-pocket expenditure, as a share in current health expenditure, in %		
	2010	2018	2019	2020	2010	2018	2019	2020	2010	2018	2020	2010	2018	2020
Slovenia **	8.6	8.3	8.3	10.2	6.3	6.0	5.9	7.8	26.6	27.2	23.8	13.0	12.0	10.1
EU *	9.0	8.3	8.3	N/A	6.5	6.1	6.1	N/A	29.0	27.0	N/A	23.0	22.0	N/A

Sources: OECD Stat, 2020 (for 2010 and 2018); OECD EU, 2020 (for 2019); HIIS, 2021b (for 2020).  
Notes: N/A – data not available. \* EU is a usual arithmetic mean of EU Member States, OECD/EU calculation (2020). \*\* For 2019, the first estimates are for Slovenia and the EU (OECD/EU, 2020); for 2020, the preliminary assessment by SURS for Slovenia was made in cooperation with HIIS (HIIS, 2021b).

Figure: Average annual real growth in total current health expenditure per capita



Source: OECD/EU, 2020.  
Note: Data for EU are the unweighted average. The OECD publication (2018b) shows a weighted average for the EU for 2017, which is higher (EUR 2,773 PPS) because it to a larger extent reflects the data from large EU Member States (Germany, France and the UK), which have relatively high per capita expenditure.

<sup>1</sup> 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. The transfer was gradual: over 2017–2020 every year an additional EUR 20 million, to a total of EUR 80 million.  
<sup>2</sup> See also IMAD, 2019b (Chapter 2: Financing social protection systems).  
<sup>3</sup> HIIS and SURS preliminary estimate on current expenditure on healthcare (excluding investments) in 2020 according to the SHA 2011 methodology.  
<sup>4</sup> Total expenditure on healthcare includes current expenditure according to the methodology of the system of health accounts (SHA 2011); investments are not included.

Expenditure on long-term care

3.7

**The share of public expenditure on long-term care (LTC) in 2018 in Slovenia was significantly lower than the EU average.** An international comparison of public expenditure on LTC in 2018 showed that it averaged 1.3% of GDP in 22 EU Member States for which data are available, while in Slovenia it was only 0.9%. In the structure broken down by sources of financing, the share of private expenditure in Slovenia increased sharply in 2008–2018; broken down by function, the share of expenditure on the health component of LTC, which is mainly financed from public sources, decreased.<sup>1</sup> After 2012, the growth of expenditure of the HHS, which finances health services in homes for the elderly and other social institutions, as well as community health nursing, was very low. It strengthened slightly in 2018. The situation for care recipients has also deteriorated in recent years, while private, out-of-pocket expenditure showed a rapid increase. These expenditures, which are the most problematic for the individual in terms of affordability, grew significantly faster than in healthcare (IMAD, 2019b).

**From 2019, the adoption of the Personal Assistance Act (the ZOA) will have a major impact on increasing public expenditure on LTC.** With the enactment of the

ZOA in January 2019, the opportunities for people with disabilities to live independently at home have greatly improved, but expenditure on personal assistance has been rising sharply for the second consecutive year: from EUR 3.8 million in 2018 to 36.8 in 2019 and 84.4 million in 2020 (MDDSZ, 2021b; IMAD, 2021). According to the international methodology, these expenditures will be included in public expenditures for long-term care (at home), and it is estimated that in 2021 they will amount to 0.2% of GDP.

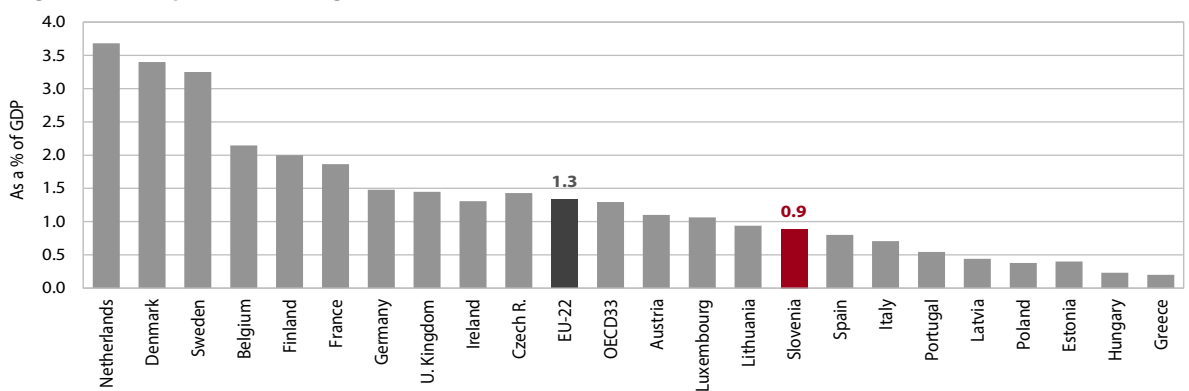
**Due to the COVID-19 epidemic, public funding for institutional care increased in 2020.** The epidemic revealed a critical shortage of staff in homes for the elderly, so EUR 26 million was allocated to ACP4 for an additional 550 jobs in 2020 and 2021. In addition, ACP5 provided funds to cover the loss of revenue due to unoccupied capacities in homes for the elderly and staff salary supplements, these in the amount of 20% for those redeployed between homes for the elderly and 30% for work in the grey and red zones. According to the EC estimate (2021), the effect on the increase in the share of public expenditure on long-term care will be around 0.1 percentage point of GDP.

Table: LTC expenditure by source of funding and by function, 2008, 2017 in 2018

	In EUR million			As a % of GDP			Breakdown, in %			Real growth, in %	Average annual real growth, in %
	2008	2017	2018	2008	2017	2018	2008	2017	2018	2018/2017	2007–2017
Long-term care	349	521	547	0.99	1.21	1.20	100.0	100.0	100.0	2.3	1.9
By source of funding											
Public expenditure	269	382	400	0.77	0.89	0.88	77.2	73.4	73.3	2.0	1.2
Private expenditure	80	138	147	0.23	0.32	0.34	22.8	26.6	26.7	2.8	4.2
By function											
Healthcare	239	329	361	0.79	0.82	0.82	73.3	66.0	66.0	2.3	0.8
Social care	87	170	186	0.29	0.42	0.42	26.7	34.0	34.0	2.1	4.8

Source: SURS, 2020 and OECD Stat, 2020.

Figure: Public expenditure on long-term care as a share of GDP, 2018



Source: OECD Stat (OECD), 2020. Note: The EU-13 average covers only countries that report both health and social care.

<sup>1</sup> The majority of public LTC expenditure (86%) at the same time also falls under health expenditure statistically. This means that an increase in public expenditure on LTC usually also means an increase in expenditure on health care.

Overweight and obesity

3.8

**Slovenia has a very high share of overweight children and adolescents from less well-off families.** Obesity in children can lead to problems with self-esteem, learning success, depression, eating disorders, etc. It can also be an important risk factor for adult obesity and a factor in health and economic problems in adulthood. A WHO survey (Inchley et al., 2020)<sup>1</sup> showed that in 2018, 21% of 15-year-olds in Slovenia were overweight or obese (EU: 19%), of whom significantly more boys (26%) than girls (16%), which is typical for all EU Member States. Inequalities in Slovenia were very high in terms of family welfare, the gap between more and less wealthy families being as much as 13 p.p. (EU-26: 8 p.p.). Other pre-epidemic research<sup>2</sup> has also shown that the proportion of overweight and obese children and adolescents is declining, especially in families with a higher socio-economic standard and more in girls than boys.<sup>3</sup>

**The closure of schools and the ban on most sports activities for children in the spring of 2020 due to the COVID-19 epidemic has caused the largest increase in overweight and obese children in the last 33 years.** The SLOfit survey in June 2020 showed an increase in subcutaneous fat in more than half of primary school children and a 20% increase in childhood obesity, which is the highest in the history of the survey. Such a proportion of the population with increased subcutaneous fat seriously increases health risks (Faculty of Sport, 2020).

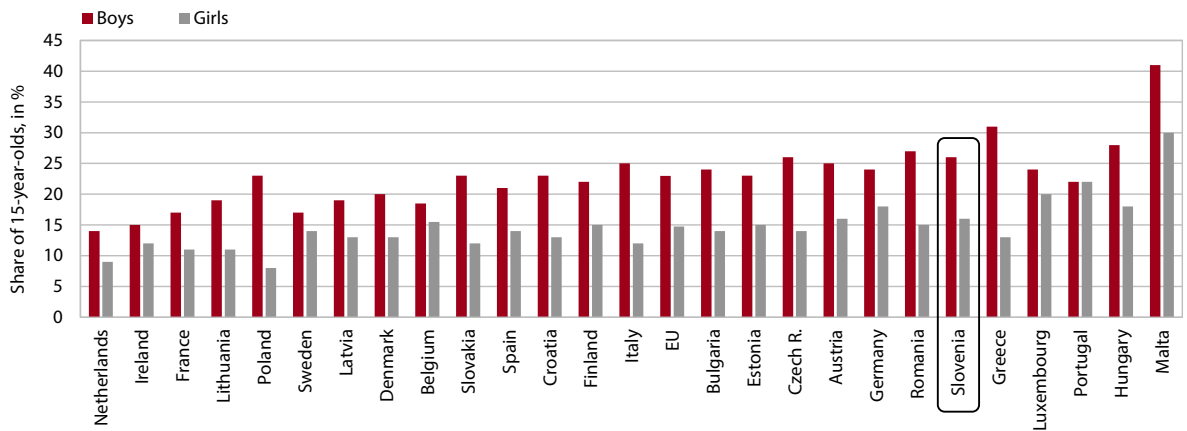
**The share of overweight adults in Slovenia decreased slightly between 2007 and 2014 but is still well above the EU average, especially for men.** Overweight and obesity<sup>4</sup> are important risk factors for the development of chronic diseases and premature mortality. A high proportion in Slovenia is also associated with poor eating habits, especially among adolescents.<sup>5</sup>

Table: Overweight and obesity in adults by gender, Slovenia and the EU average, 2007 and 2014

		Overweight, in %						Obesity, in %					
		Total		Women		Men		Total		Women		Men	
		2007	2014	2007	2014	2007	2014	2007	2014	2007	2014	2007	2014
Slovenija	Odrasli	39.8	36.5	30.7	30.3	49.0	42.7	16.8	18.6	16.3	17.0	17.3	20.3
EU	Odrasli	N/A	34.8	N/A	28.4	N/A	41.7	N/A	15.4	N/A	15.3	N/A	15.6

Source: Eurostat, 2020.  
Notes: Data according to EHIS; N/A – data not available. For 2007, comparable data according to the EHIS are available only for 18 EU Member States. The averages are therefore not available.

Figure: Share of overweight and obese 15-year-olds by gender, 2018



Source: OECD/EU, 2020.  
Note: Data from the HBSC survey (Inchley et al., 2020). Countries are ranked by average share. \* EU includes 26 countries (without Cyprus).

<sup>1</sup> In children and adolescents, the body mass index (BMI) is assessed against reference standards adapted to the child's age and gender. These reference standards are developed on the basis of a representative sample. The International Obesity Task Force (IOTF) ranks BMI by population values between 25 and 30 for ages 0 to 18 based on data from Brazil, the UK, Hong Kong, the Netherlands, Singapore and the United States (Carinthia et al., 2018).  
<sup>2</sup> Data from the SLOfit system in Slovenia (Korošec et al., 2018).  
<sup>3</sup> See also NIJZ, 2021b.  
<sup>4</sup> According to the criteria of the World Health Organisation, adults with a BMI between 25.0 and 29.9 kg/m<sup>2</sup> are defined as overweight and those with a BMI of 30 kg/m<sup>2</sup> or over as obese. The BMI is the ratio of body weight to height squared (WHO, 2003).  
<sup>5</sup> According to the EHIS survey, in 2014, fewer than one in three 15-year-olds regularly ate fruit or vegetables, more than one in three regularly drank sugary drinks, only 14% were physically active every day, and every second did not eat breakfast regularly. Slovenians also consumed significantly more salt than the EU average.

At-risk-of-social-exclusion rate

3.9

In Slovenia, the social exclusion rate has been among the lowest in the EU since the beginning of measurements in 2005, and in 2019 it fell below the level of 2008 for the first time and reached the set SDS target. The synthetic indicator of social exclusion consists of three dimensions: the at-risk-of-poverty rate<sup>1</sup>, the severe material deprivation rate (see Indicator 3.16) and the share of people living in households with very low work intensity (less than 20% of total household potential).<sup>2</sup> In Slovenia, the risk of social exclusion has been declining faster than in other Member States since 2014, mostly due to a larger decline in the share of the severely disadvantaged; according to the latest available data (EU-SILC 2019 with income from 2018) 293,000 people were exposed to social exclusion, which ranks us only behind the Czech Republic. Despite a significant decrease, the rate increased for some groups of the population, mostly for one-member older households (65 years or more) (by 3.1 percentage points) and single-parent households (by 1.4 percentage points).

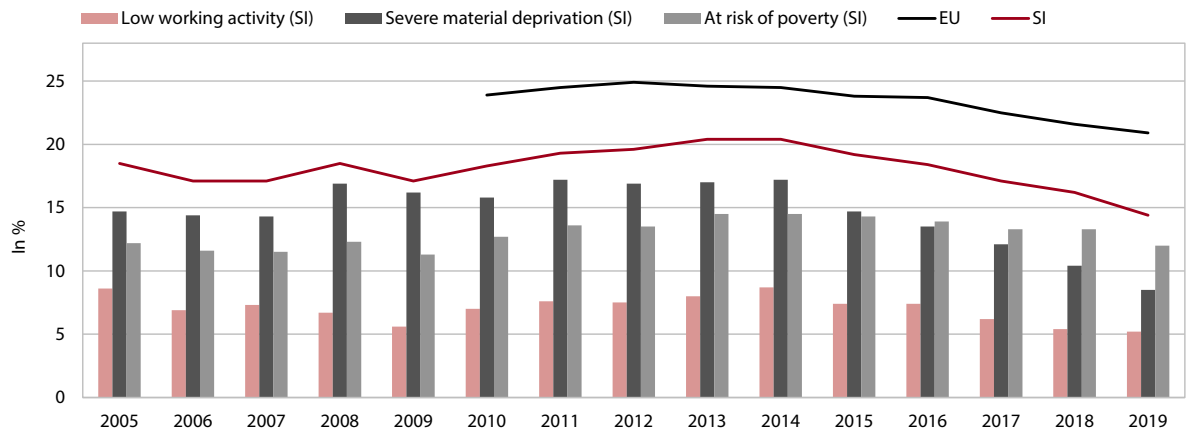
In 2019, every eighth inhabitant in Slovenia was exposed to the risk of poverty, which ranks us fourth among the EU Member States after the Czech Republic, Finland and Slovakia. In 2019, 243,000 people lived below the at-risk-of-poverty threshold<sup>3</sup> (12% of the population; EU: 16.5%).<sup>4</sup> By gender and age, women continued to be most at risk of poverty in 2019 (13%; EU: 17.1%), mainly over the age of 65 (23%, EU: 18.2%). According to the type of household, single-member households (38% of people below the poverty line) were in the worst position, especially women (41.1%). Among households with dependent children, persons in single-parent households with at least one dependent child were in the worst position (26.1%). The at-risk-of-poverty rate was the highest in the Zasavska region and lowest in the Gorenjska region – the difference between the two regions was high (11.8 p.p.). An increase in the risk of social exclusion due to the COVID-19 epidemic for 2020 is to be expected mainly among those population groups that have not been sufficiently reached by the government's anti-COVID-19 packages<sup>5</sup> (EAPN, 2020a) and among the poorest not covered by statistical surveys (see IMAD, 2021).

Table: Social exclusion rate, in %

	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	SDS 2030 target
Slovenia	18.5	18.5	17.1	18.3	19.3	19.6	20.4	20.4	19.2	18.4	17.1	16.2	14.4	< 16
EU	N/A	N/A	N/A	23.9	24.5	24.9	24.6	24.5	23.8	23.7	22.5	21.6	20.9	

Sources: Eurostat, 2021; SURS, 2021.  
Note: N/A – data not available.

Figure: The social exclusion rate by all three dimensions of poverty, in %



Sources: Eurostat, 2021; SURS, 2021.

<sup>1</sup> It covers the share of persons living in a household with an equivalised disposable income of less than 60% of the national median equivalised income (SURS, 2020).  
<sup>2</sup> Persons falling in several categories are counted only once in the total number (see SURS, 2020).  
<sup>3</sup> Of these, 10.5% of all minor children, 4.5% of all employed, 43.6% of all unemployed, 18.9% of those incapable of work and other inactive, and 18.2% of all the retired (Eurostat, 2021; SURS, 2021; Jakša, 2020; Intihar, 2020).  
<sup>4</sup> In 2019, people living below the at-risk-of-poverty threshold were those whose net disposable income per adult equivalent was below EUR 703 per month, or EUR 8,440 per year. The threshold for a two-member household without children was set at EUR 1,055 per month, and the threshold for a four-member household with two adults and two children younger than 14 at EUR 1,477 per month (SURS, 2021).  
<sup>5</sup> The increase in the risk of poverty and social exclusion due to the COVID-19 epidemic will not be seen until 2022, according to the measurement methodology in the statistics.

Inequality of income distribution

3.10

The values of income inequality indicators (Gini coefficient and quintile class ratios) in Slovenia continue to be among the lowest in the EU. For many years, Slovenia has been one of the countries with low income inequality, mainly due to progressive taxation and, to some extent, to social transfers. In 2019, the top 20% of households in Slovenia received 3.4 times as much income as the bottom 20%, which has been within the SDS target for three years in a row and is equal for both sexes.<sup>1</sup> Even for people aged 65 and over, the income ratio between 20% of the richest in income and 20% of the poorest in households is low (3.4 times), but is noticeably closer to the EU average than for those under 65. A further breakdown of income distribution in Slovenia for 2019 showed that the gap between the fifth and third quintiles was 1.84 (EU: 2.16) and was slightly lower than the gap between the third and first quintiles, which was 1.85 (EU: 2.24) (SURS, 2021; calculation by IMAD). The poorest fifth of households account for around a tenth of total disposable income, while the wealthiest fifth account for a third.

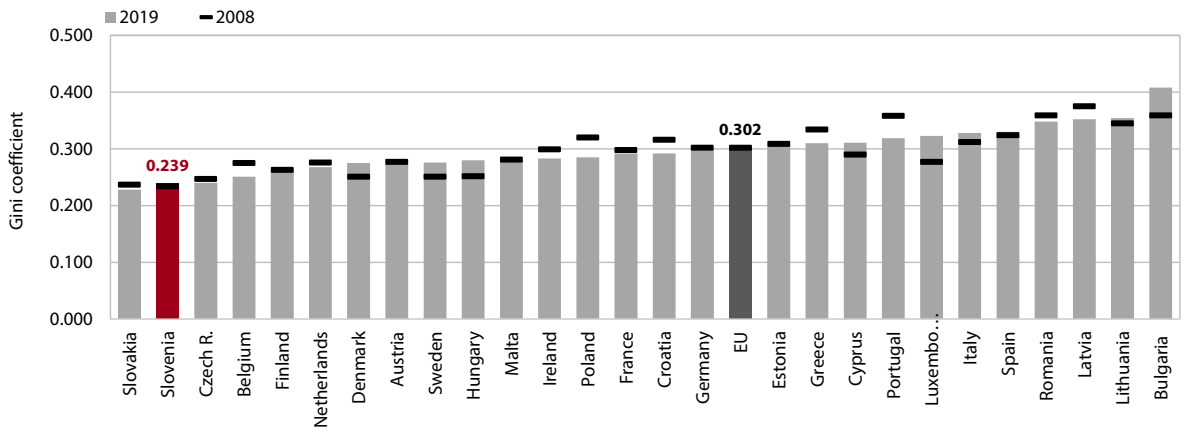
In 2008–2019, changes in income distribution were small. The quintile share ratio (80/20) in Slovenia was equal to that in 2008 according to the latest available data. It increased the most in Bulgaria and fell the most in Portugal. In Slovenia, inequality of income distribution increased slightly in 2009–2014, mainly due to the global financial crisis and the adoption of austerity measures. In 2014, it started to decline again with rapid economic growth and the phasing out of austerity measures. Similar movements for Slovenia are also indicated by the most commonly used measure of economic inequality, the Gini coefficient. In 2019, the Gini coefficient was 0.239, slightly higher than in 2008 and below the 2014 value, when it reached its highest level.

Table: Inequalities of equivalised disposable income distribution, quintile share ratio 80/20

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	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	< 3.5
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	

Source: Eurostat, 2021.  
Note: N/A – data not available.

Figure: Gini coefficient for equivalised disposable income



Source: Eurostat, 2021.  
Note: The value of the Gini coefficient ranges between 0 (perfect equality) and 1 (complete inequality). For 2008, data from 2010 were taken into account for the EU and Croatia.

<sup>1</sup> In both men and women, in 2019 the ratio of quintile classes of 80/20 was 3.4.



Experience of discrimination

3.11

**The share of people in Slovenia who have experienced discrimination or harassment has decreased in recent years and is within the SDS target.** In 2019, 9% of respondents felt discriminated against, which is among the lowest shares in the EU. Lower shares were recorded only in Malta (8%), Greece (7%) and Portugal (6%). Last year, most frequently mentioned reasons for discrimination were age, gender, religion or beliefs, and general physical appearance (2%).<sup>1</sup> Discrimination on the grounds of disability, ethnic origin, sexual orientation, social class, political beliefs, skin colour or being of Roma origin was experienced by 1% of respondents. Though discrimination was below the EU average in terms of most personal circumstances, it was as common as the EU average in terms of sexual orientation, religion or beliefs and being of Roma origin. In Slovenia and the EU overall, the share of respondents discriminated against on the basis of age declined the most compared with 2015. Experience of discrimination was more frequently mentioned by individuals who considered themselves being part of a minority group.<sup>2</sup>

**The share of people who have experienced discrimination in Slovenia is relatively low; the**

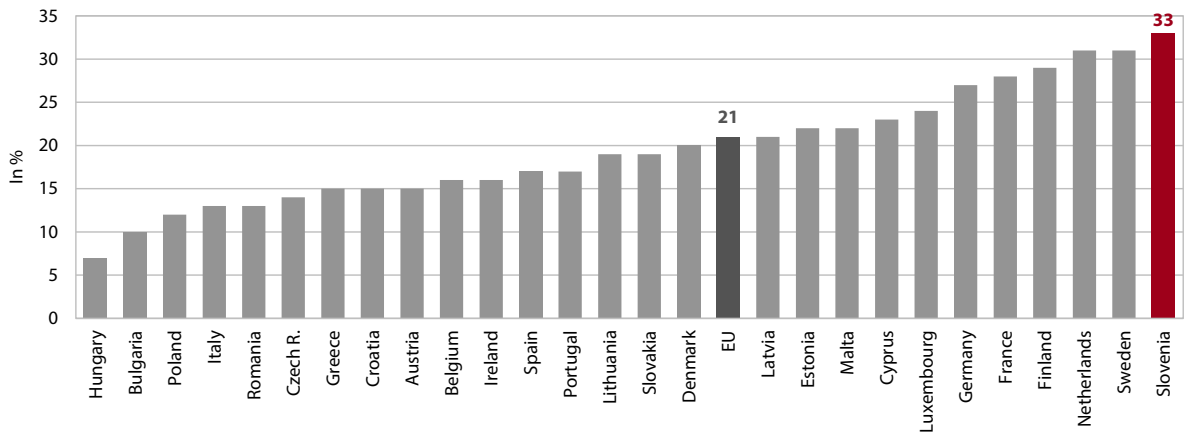
**most frequently reported form of discrimination is discrimination at work.** In 2019, 33% of respondents felt discriminated against at work, which is the highest share among EU Member States and significantly above the EU average (21%).<sup>3</sup> Discrimination at work was experienced by 34% of men and 31% of women and was most often reported by those in the 35–44 age group. This is followed by discrimination in public places (17%), in cafes, restaurants or nightclubs (13%), and when looking for a job (12%). However, only 1% of respondents felt discriminated against by health care personnel, which is the least among EU Member States. To stop all forms of discrimination, it is important for the country to step up efforts in this area and inform people about their rights in the event of discrimination. In Slovenia, the share of those who consider the efforts made by the state to fight discrimination to be effective has increased.<sup>4</sup> The population's awareness about the exercising of the rights of the Advocate of the Principle of Equality and that personal circumstance is the main factor in establishing discrimination has also increased, while the share of individuals who have taken action to fight discrimination remains low.<sup>5</sup>

■ 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, 2017a and 2019.

■ Figure: Share of persons who experienced discrimination at work in 2019 (in %)



Source: Eurobarometer, 2019.

<sup>1</sup> In the EU, the most frequently given reasons for harassment or discrimination were gender and age (both 4%).  
<sup>2</sup> In Slovenia, 11% of respondents considered themselves being part of a minority group (in the EU, 12%), 50% of respondents who considered themselves being part of a sexual minority said that they felt discriminated against or harassed, 40% of those belonging to a religious minority, 32% of those belonging to an ethnic minority, 28% of disabled persons and 16% of Roma respondents. On the insufficient involvement of marginalised and segregated social groups in research on discrimination, see IMAD (2021).  
<sup>3</sup> In 2019, the Advocate of the Principle of Equality (2020) concluded most cases in the field of counselling and discrimination regarding employment and work.  
<sup>4</sup> In 2019, 28% of respondents in Slovenia perceived the efforts made in Slovenia to fight all forms of discrimination as effective, while 38% considered them moderate, which is more than in 2015 and slightly above the EU average (Eurobarometer, 2019).  
<sup>5</sup> For details, see IMAD, 2021 and 2020a, and Advocate of the Principle of Equality, 2020.

Median equivalised disposable income

3.12

**In terms of the median equivalised disposable income (EDI), Slovenia was in the middle of the EU Member States in 2019.** The strong growth in 2008 and 2009 was followed by a period of negative or low growth (2010–2013) as a result of reduced economic activity, austerity measures (the 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 in Slovenia gradually increased, which contributed to the improvement in the living standard of the population. In 2019, it reached the highest level in real terms. The movements of the median EDI in the EU as a whole in the last decade were comparable to those in Slovenia, but the increases and decreases in growth rates were less pronounced.

**Slovenia is characterised by slow growth of the median EDI of people over 65 years of age and those with higher education.** The median EDI in EUR increased in Slovenia in 2010–2019 similarly (19.9%) as

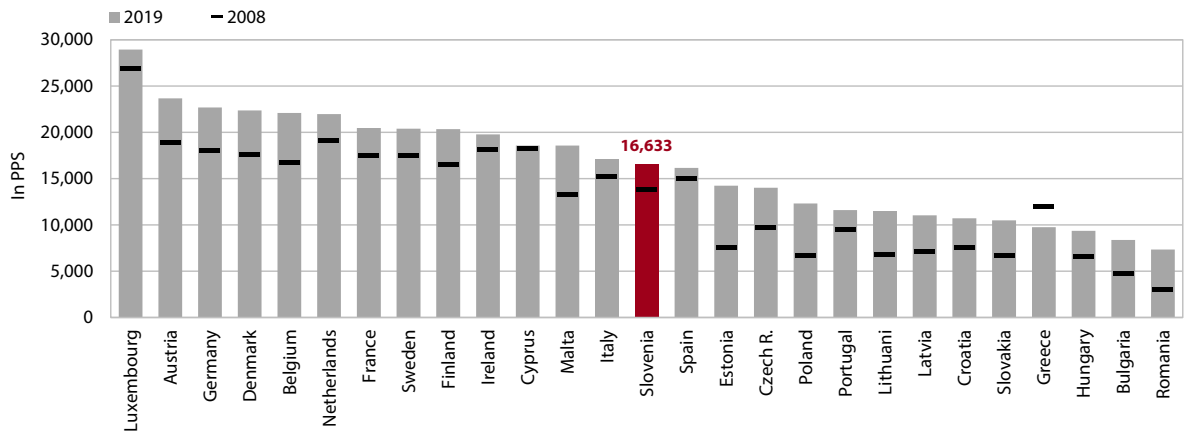
in the EU average (19.3%), with the working population expected to reach the highest level in both Slovenia and the EU in the 18–64 age group. The median EDI of the age group of 18 and under is similar to the total EDI, which is mainly a result of policies for protecting the material well-being of children and young people in Slovenia. The median EDI of people over 65 years of age has been the lowest in recent years, mainly due to the modest growth in the average pension; therefore, the income of this age group in Slovenia lags behind the income of people aged 18–64 more than the EU average. The median income growth of the highly educated in 2009–2019 is noticeably lower than that of the middle- and low-educated, which was influenced by the progressive public servants’ wages during the fiscal consolidation period (2013) and an increase in the share of tertiary educated young people employed at places requiring secondary or lower education (see Section 2). The lag of the median EDI of Slovenia in PPS for Austria, which is at the top in terms of income<sup>1</sup>, decreased in 2015–2019 and in 2019 amounted to 30%. The gap was higher among people over 65 (39%) and the middle-educated (33%).

Table: Median equivalised disposable income, Slovenia and EU average

		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Slovenia	Amount in EUR	10,893	11,864	11,736	11,999	12,122	11,852	11,909	12,332	12,327	12,713	13,244	14,067
	Real growth (%)	4.2	8.0	-3.1	0.1	-1.7	-4.1	0.1	4.4	0.2	1.5	2.2	4.4
EU	Amount in EUR	N/A	N/A	14,521	14,652	14,924	14,962	15,100	15,422	15,849	16,280	16,839	17,325
	Real growth (%)	N/A	N/A	N/A	-1.9	-0.7	-1.0	0.5	2.0	2.6	1.1	1.6	1.5

Source: Eurostat, 2021; calculation by IMAD.  
Note: N/A – data not available

Figure: Median equivalised disposable income



Source: Eurostat, 2021.  
Note: For Croatia, data from 2010 are used for 2008.

<sup>1</sup> The country with the highest incomes is Luxembourg, but for the sake of more appropriate comparability, we took the country with second highest incomes, i.e. Austria.

Life satisfaction

3.13

**In 2020, life satisfaction<sup>1</sup> in Slovenia was 2 percentage points lower than in 2019, but Slovenia remains above the EU average.** More than in Slovenia, life satisfaction decreased in Luxembourg, Austria, Finland and Malta. At the level of the EU average, the highest share of those satisfied, which was recorded in 2019, was also recorded in 2020, despite the COVID-19 epidemic. Slovenia dropped from ninth to eleventh place in the EU. Belgium was again ahead of Slovenia, as was Spain and, for the first time, the Czech Republic. All three countries with the highest levels of satisfaction in 2019 (Denmark, Sweden and the Netherlands), further improved their satisfaction in the summer of 2020.

**At the national level, in the summer of 2020 the shares of those satisfied with employment and economic situation<sup>2</sup> were lower than in the previous year, while the shares of those satisfied with their personal employment situation (65%) and financial situation of the household (74%) were the highest ever.** The share of respondents who expressed pessimistic expectations<sup>3</sup> increased in 2020. The optimism<sup>4</sup> indicator for the employment situation at the private level was the lowest of all six

indicators measuring expectations for the next 12 months, while at the state level, it was lower by more than half compared to the highest share in spring 2018. At the state level, in the summer of 2020, the shares of those satisfied with the employment and economic situation were lower than in the previous year by nine and eight percentage points respectively (EU both by 13 percentage points).

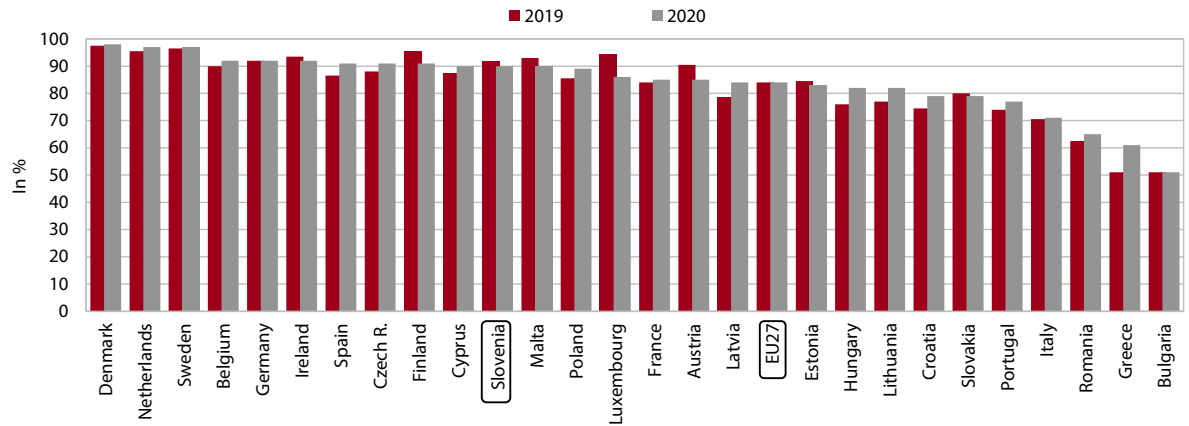
**When asked to identify two main issues<sup>5</sup> at the national level, Slovenian respondents again pointed to health (57%) as the most important problem, followed by the economic situation (33%).** This was followed by unemployment (21%), pensions (11%) and (with 9%) migration, public debt, inflation and rising living costs. At the personal level, the main concern of Slovenian respondents was health (28%), as in the previous year, followed by living conditions for the first time (20%) and by living costs with inflation and working conditions. This was followed by indicators that have been more frequently perceived as a problem at the personal level over the years: pensions, the financial situation of one's own household, the economic situation, unemployment and housing.

Table: Life satisfaction, Slovenia and EU average, in %

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Slovenia	90	89	88	89	87	86	85	83	85	82	83	84	89	92	91	92	90
EU	81	81	82	80	77	78	78	77	77	75	80	76	81	82	83	84	84

Source: Eurobarometer, 2020.  
Note: The annual data represents the average of two measurements, except for 2004 and 2020. Only one survey was conducted in 2020, this in July and August 2020.

Figure: Life satisfaction, EU Member States, 2019 and 2020 (%) and the difference between them (in p.p.)



Source: Eurobarometer, 2020

<sup>1</sup> The Eurobarometer measures life satisfaction with a question: "All things considered, how satisfied would you say you are with your life these days?" In our analysis, the category of satisfied people includes very satisfied and satisfied people.

<sup>2</sup> Expectations for the next 12 months and perceptions of the situation at the country level tend to be more dependent on the presentation of reality in the media than those at the personal level that reflect one's personal situation.

<sup>3</sup> Proportion of respondents who expect a deterioration in the next 12 months or are uncertain about both areas.

<sup>4</sup> Proportion of respondents who expect improvement in the next 12 months in the areas of life in general, situation in general, personal employment situation, financial situation of the household, economic situation in the country and employment situation in the country.

<sup>5</sup> Respondents were asked to identify two areas (of those listed) they perceive as their greatest concerns at the state level and at the personal level.

Social protection expenditure

3.14

**Slovenia lagged far behind the EU average in terms of social protection expenditure<sup>1</sup> as a share of GDP and in purchasing power standards (PPS) per capita.** Over the last ten years, these have been around five p.p. lower. In PPS per capita, Slovenia achieved 68.5% of average EU social protection expenditure in 2018; the level has been declining since the crisis in 2008 (74.5%) due to the adoption of austerity measures and the implementation of new social legislation.<sup>2</sup> In 2018, Slovenia approached the EU average only in the area of expenditure for the poorest (other forms of social exclusion), where it reached 98.6% of the average. It was close to the EU average in the area of sickness and health care (79.1%).

**The major part of social protection expenditure in Slovenia and in the EU is intended for pensions and sickness/healthcare.** In 2018, Slovenia spent six p.p. more funding (75%) for these purposes than the EU average,<sup>3</sup> as the expenditure on the sickness category has been increasing in recent years as a consequence

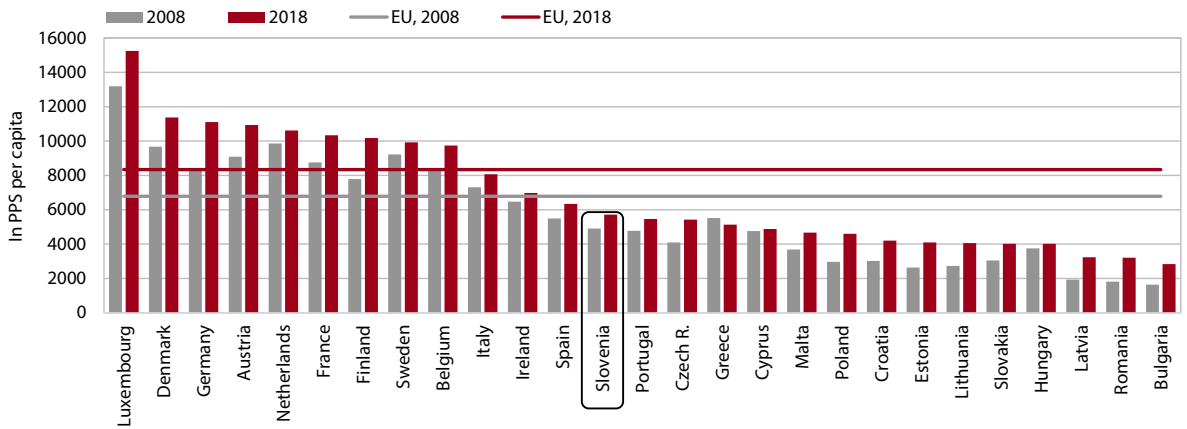
of higher expenditure on sickness benefits and on old age due to resumed pension indexations (since 2016), the introduction of a guaranteed pension in 2017, and also growth in the number of beneficiaries, which is otherwise moderate. The third largest transfer in EU and in Slovenia was intended for families and children. Slovenia has the widest gap with the EU average in the area of unemployment, mainly owing to the small share of unemployment benefit beneficiaries among the unemployed compared to other EU Member States. The share of expenditure on disability has been declining for a long period, mainly due to a lower number of beneficiaries of disability pensions. The relatively low expenditure on accommodation, however, is to a great extent attributable to the very high share of owner-occupied dwellings and the relatively poorly developed rental housing market. The only area for which more funds were allocated in Slovenia as a share of GDP compared to the EU was the area of other form of social exclusion, which includes benefits intended for the poorest.

Table: Social protection expenditure (in % of GDP)

	2000	2005	2008	2010	2012	2013	2014	2015	2016	2017	2018
Slovenia	23.8	22.7	21.0	24.4	24.7	24.6	23.9	23.8	23.2	22.6	22.0
EU	N/A	N/A	26.0	28.6	28.7	29.1	28.9	28.6	28.5	28.1	27.9

Source: Eurostat, 2021.  
Note: N/A – data not available.

Figure: Social protection expenditure, in purchasing power standards per capita, 2008 and 2018



Source: Eurostat, 2021.

<sup>1</sup> According to the ESSPROS methodology, expenditure covers the following categories: sickness/healthcare, disability, old age, death of the breadwinner, family/children, unemployment, accommodation, and other forms of social exclusion. See also IMAD (2021).  
<sup>2</sup> The ZUPJS (2010) redefined the criteria for obtaining social and family benefits in order to increase their targeting. The Fiscal Balance Act (ZUJF, 2012) limited or froze the payment of certain family benefits and parental benefits.  
<sup>3</sup> As a result, Slovenia allocated less funds than the EU for all other areas of social protection, measured as a share of GDP.

Housing deprivation rate

3.15

**Slovenia continues to have an above-average housing deprivation (HD) rate<sup>1</sup>, although it has been declining faster than the EU average.** Due to different measurement methods, the data for Slovenia are not completely comparable with those pertaining to the EU average.<sup>2</sup> The HD rate improved significantly in 2011–2019 (by 14.2 p.p.), but a fifth of the population (mostly in the Goriška and Pomurska regions) continues to live in poor housing conditions (EU: 12.7%). This is mainly due to the old and poorly maintained housing stock, as more than 80% of dwellings were built before 1990. In 2016–2020, only about 4,000 dwellings were built in total, the most in Osrednjeslovenska and Obalno-kraška and the least in the Zasavska region (SURS, 2021).

**In 2019, a third of the population below the at-risk-of-poverty threshold lived in poorly maintained dwellings (in the EU around a fifth).<sup>3</sup>** The potential for improving the quality of housing, reducing environmental impacts and reducing energy consumption of households lies in the renovation of the housing stock. Low-income households often live

in buildings in need of renovation, in some places with older members (e.g. the Goriška and Pomurska regions), which makes renovation difficult. In 2019, more than 30% of people below the at-risk-of-poverty threshold lived in dwellings exhibiting at least one element of deprivation.<sup>4</sup> One-fifth of households below the at-risk-of-poverty threshold were overburdened with housing costs, which is less than the EU average (35.4%).

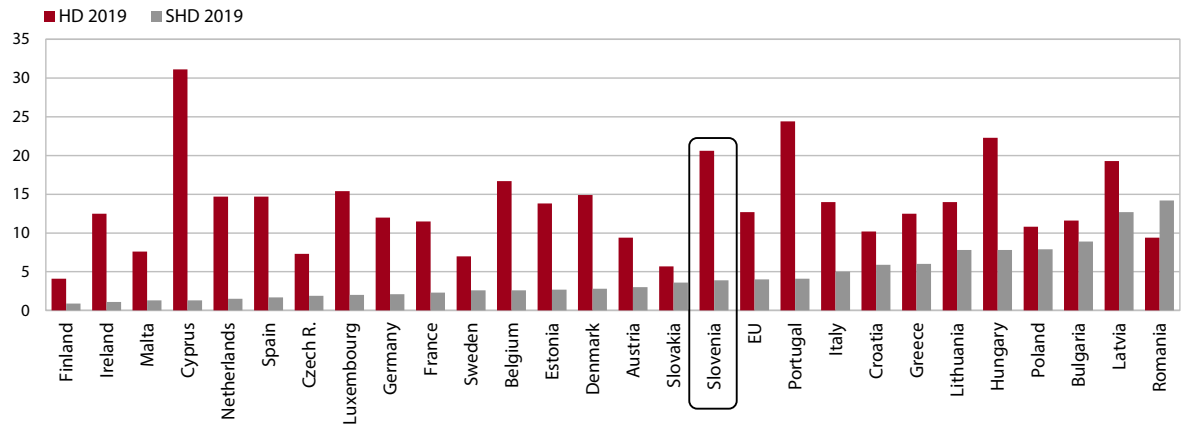
**In 2019, 3.9% of the population in Slovenia faced severe housing deprivation (SHD).** The overcrowding rate, which is taken into account in addition to at least one of the deprivation elements in measuring the severe housing deprivation, was below the EU average.<sup>5</sup> The SHD rate has been declining since 2011, but it is still twice as likely for people below the at-risk-of-poverty threshold. Research by international institutions has shown that during the COVID-19 epidemic, people deprived of housing are among the most at risk (in terms of health), so the importance of adequate housing is one of the key health factors (FEANTSA et al., 2020; OECD, 2020f; UN, 2020).

Table: Housing deprivation (HD) rate and severe housing deprivation (SHD) rate, in %

	2013		2014		2015		2016		2017		2018		2019	
	HD	SHD	HD	SHD	HD	SHD	HD	SHD	HD	SHD	HD	SHD	HD	SHD
Slovenia	27.0	6.5	29.9	6.5	26.9	5.6	23.8	4.5	22.0	4.4	22.7	4.8	20.6	3.9
EU	15.6	5.5	15.6	5.4	15.3	5.3	15.2	5.1	13.1	4.5	13.6	4.3	12.7	4.0

Source: Eurostat, 2021.

Figure: Housing deprivation (HD) rate and severe housing deprivation (SHD) rate, 2019



Source: Eurostat, 2021.

<sup>1</sup> HD is measured as the proportion of the population living in a dwelling in poor condition (roof leaking, damp walls/foundations/floors or loose window frames/floors) with the EU-SILC survey (SURS, 2021; Eurostat, 2021). Data do not include homeless people, Roma, who are insufficiently included, and other low-income groups often living in poorer housing conditions (see IMAD, 2021).

<sup>2</sup> Until 2007, like most EU Member States, SURS collected data for the HD with one question (see note above), and since 2008 with three: (i) leaking roof, (ii) damp walls/floors/foundations, (iii) loose window frames/floors. At least one positive answer means a poor condition of the apartment. The changes were introduced due to the underestimation of the phenomenon in Slovenia (SURS). The results differ greatly depending on the old and the new method of measurement: The HD was 17.5% in 2007 and 30.2% in 2008.

<sup>3</sup> The at-risk-of-poverty rate in Slovenia is lower than in the EU (see Indicator 3.9).

<sup>4</sup> Elements of deprivation are: (i) poor condition of the dwelling, (ii) no bathtub or shower in the dwelling, (iii) no flushing toilet for own use, and (iv) the dwelling is too dark.

<sup>5</sup> The SHD would be higher if the overcrowding rate was measured by area and not by number of rooms. The previous housing policy in Slovenia was focused on the construction of several smaller flats with a larger number of rooms, so Slovenia shows a relatively low level of housing overcrowding, but with a low area standard (Sendi, 2013).

Material and income deprivation

3.16

**In the last five years, the level of material deprivation<sup>1</sup> in Slovenia has halved and in 2019 it continued to be significantly lower than the EU average.** In 2010–2019, it decreased in all Member States except Greece, most notably in Latvia (by 30.2 p.p.) and also by more than 20 p.p. in Bulgaria, Hungary and Romania. In Slovenia, it decreased by 7.3 p.p., which is more than the EU average (6.5 p.p.). According to gender, the level of material deprivation in 2019 was six p.p. higher among women (EU: 0.5 p.p.). In terms of age, the most disadvantaged persons in Slovenia were those aged 65 and over (by 0.3 p.p. above the EU average); in the EU, the most pressing material disadvantage was among children under the age of 18 (12.7%; in Slovenia 6.4%). In 2014–2019, the gap between the Vzhodna Slovenija (11.1%) and Zahodna Slovenija (5.6%) cohesion regions widened further: the level of material deprivation remained high in the Pomurska, Koroška and Zasavska regions and decreased the most in Podravska region (by 12.1 p.p.). Provisional EU-SILC 2020 data (with income from 2019) show that the material situation of households has not

deteriorated due to the COVID-19 epidemic compared to most indicators, but that the level of serious material deprivation in 2020 increased by 0.4 p.p. or 8,000 persons (Inglič, Intihar and Stare, 2021; Eurostat, 2021).<sup>2</sup>

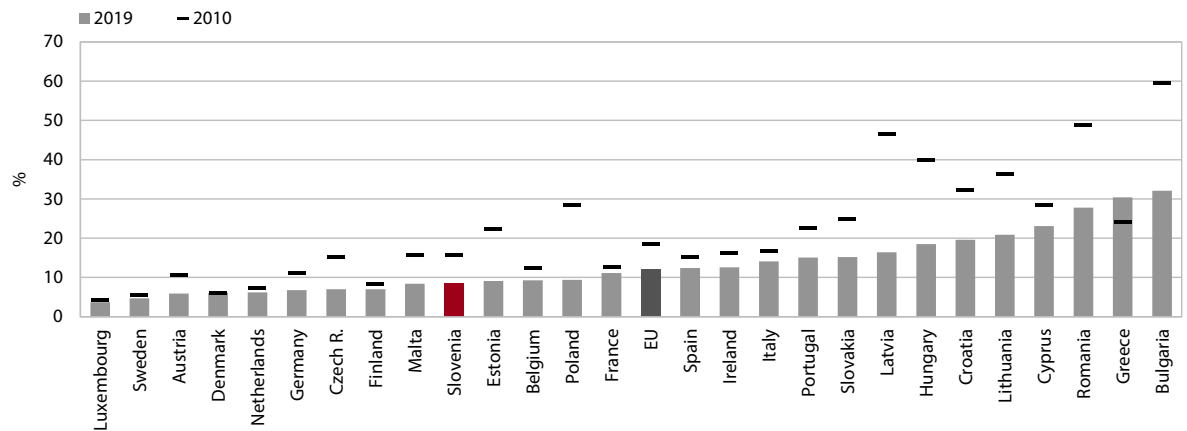
**The poorest households in Slovenia (the first quartile), as in the majority of EU Member States, were better prepared for unexpected expenditures in 2009–2011 than during the first wave of the COVID-19 epidemic.<sup>3</sup>** Based on longer time series and different databases, the OECD (2020d) and the ECB (2020) calculated that before the outbreak, the first quartile class of households in Slovenia had, on average, less current funds in their bank accounts than in other Member States and that households from the lower two quartiles during the first wave of the epidemic could withstand less than a month without additional measures.<sup>4</sup> Provisional EU-SILC 2020 data (with incomes from 2019) show that the share of households that had difficulty coping with their incomes in 2020 remained the same as in the previous year (at 20%) (Inglič, Intihar and Stare, 2021).

Table: Material deprivation rate

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Slovenia	14.7	14.4	14.3	16.9	16.2	15.8	17.2	16.9	17.0	17.2	14.7	13.5	12.1	10.4	8.5
EU	N/A	N/A	N/A	N/A	N/A	18.5	19.2	20.2	19.8	19.0	17.4	16.2	14.8	13.4	12.0

Sources: Eurostat, 2021; EU-SILC-2019 data (income from 2018).  
Note: N/A – data not available.

Figure: Material deprivation rate



Sources: Eurostat, 2021; EU-SILC-2019 data (with income from 2018).

<sup>1</sup> According to EU-SILC survey methodology, material deprivation is reached with least three of the nine elements of deprivation, while severe material deprivation with at least four. The elements of disadvantage are inability: 1. to face unexpected expenses, 2. to take at least a one-week annual holiday away from home, 3. to afford proper food, 4. to pay for arrears (mortgage or rent, utility bills, or hire purchase instalments), 5. to keep the home adequately warm, 6. to have a washing machine, 7. to have a colour TV, 8. to have a telephone/mobile, 9. to have a passenger car.

<sup>2</sup> Due to the new circumstances caused by the epidemic, the EU-SILC 2020 survey is not fully comparable to previous surveys, as part of it was carried out before the epidemic (in the first two months of 2020) and it was completed later than usual (for more detail, see Inglič, Intihar and Stare, 2021). For general methodological obstacles to the EU-SILC, see also IMAD (2021).

<sup>3</sup> As in most of the world, the consequences of the global financial crisis (2008–2013) have placed a heavy burden on households in Slovenia. For more details, see IMAD (2021), Demertzis, Domínguez-Jiménez and Lusardi (2020), and Midões (2020).

<sup>4</sup> This was at least among the 22 EU Member States included in the research. Only Croatia and Latvia ranked worse.

Employment rate

3.17

**After several years of growth, the employment rate (20–64 years) in 2018 and 2019 reached the SDS target, but due to the COVID-19 epidemic it declined in 2020 and dropped below the target value.** Along with economic growth and increased demand for labour, demographic trends also contributed to the increase in employment activity until 2019. Further increase in employment in 2020 was halted, especially among young people (20–29 years), by the COVID-19 epidemic.<sup>1</sup> Young people, already severely affected during the global financial crisis (2008–2013), are more exposed to temporary employment and student work, which has been greatly reduced by the COVID-19 epidemic and its containment measures. The employment rate among older working-age adults (55–64 years) increased slightly in 2020, despite the crisis, but remains among the lowest in the EU and lags behind its average by 7.7 p.p.

**The COVID-19 epidemic has significantly reduced the employment rate of the low- and middle-educated.** After the low-educated were the most affected by the global financial crisis (a markedly larger decrease compared to the EU average), in 2014 and 2015 their

employment increased the most. With the COVID-19 crisis, the work activity of the less educated fell sharply again.<sup>2</sup> This was due, among other things, to the high proportion of employees with low education in the activities that were among the most affected by the restrictive measures.<sup>3</sup> The markedly deteriorating economic situation also reduced the employment rate of the middle-educated in the second quarter of 2020, while the rate of the highly educated fell by only 0.3 p.p. year-on-year and remains among the highest among EU Member States.

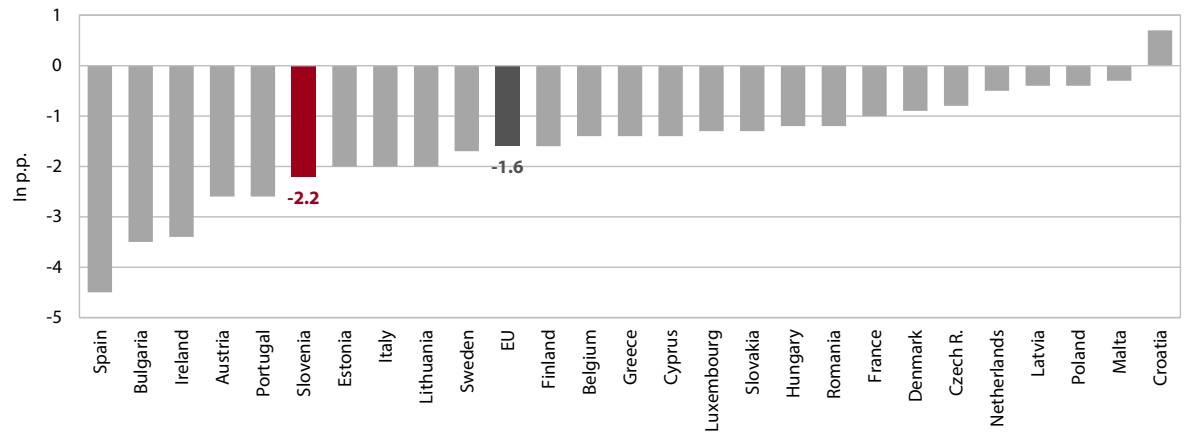
**Also in the regions, employment activity, following a significant excess over the pre-crisis level in 2019, fell back, mainly due to the COVID-19 epidemic, in 2020.** The largest year-on-year decline in the second quarter of 2020 was in the Obalno-kraška region (it lagged behind the Slovenian average by 7 index points), as in 2019 it generated 40% of total value added in accommodation and food service activities and tourism, the most among all regions. Employment also fell sharply in the Goriška and Pomurska regions, both with a high share of manufacturing in the structure of value added and low education among employees.

Table: Employment rate of the population aged 20–64, in %

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	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	>75.0
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	71.6	

Source: Eurostat, 2021.  
Note: N/A – data not available; data for individual years refer to the second quarter.

Figure: Year-on-year change in employment rates (20–64 years) in the second quarter of 2020, EU



Source: Eurostat, 2021.  
Note: data for Germany are not available.

<sup>1</sup> Year-on-year, youth employment in Slovenia fell more than in the EU average in the second quarter of 2020. In the age group 20–24, employment in Slovenia decreased by 15.6 p.p. (EU: 4.5 p.p.); in the age group 25–29, employment in Slovenia decreased by 4.6 p.p. (EU: 3.1 p.p.).  
<sup>2</sup> The second largest drop (after Bulgaria) in the employment rate of the less educated (-5.2 p.p.) was recorded in Slovenia in the second quarter of 2020.  
<sup>3</sup> For more details on the impact of COVID-19 on the labour market, see Kajzer (2020b).



In-work at-risk-of-poverty rate

3.18

**In Slovenia, the rate of in-work at-risk-of-poverty fell sharply in 2019 and was the lowest in 20 years.** The in-work at-risk-of-poverty rate for people over the age of 18 was 4.5% in 2019, which is similar to the years before the global financial crisis, thus achieving the SDS 2030 target. The in-work at-risk-of-poverty rate for women is lower in Slovenia than for men.<sup>1</sup> Like in other EU Member States, the at-risk-of-poverty rate in Slovenia is much higher among young people (up to 29 years of age) than among older people (55–64 years). The larger difference between the in-work at-risk-of-poverty of young people and older people in Slovenia compared to the EU average can be attributed mainly to the legalisation of length-of-service allowances and lower exposure of older people to precarious forms of work.

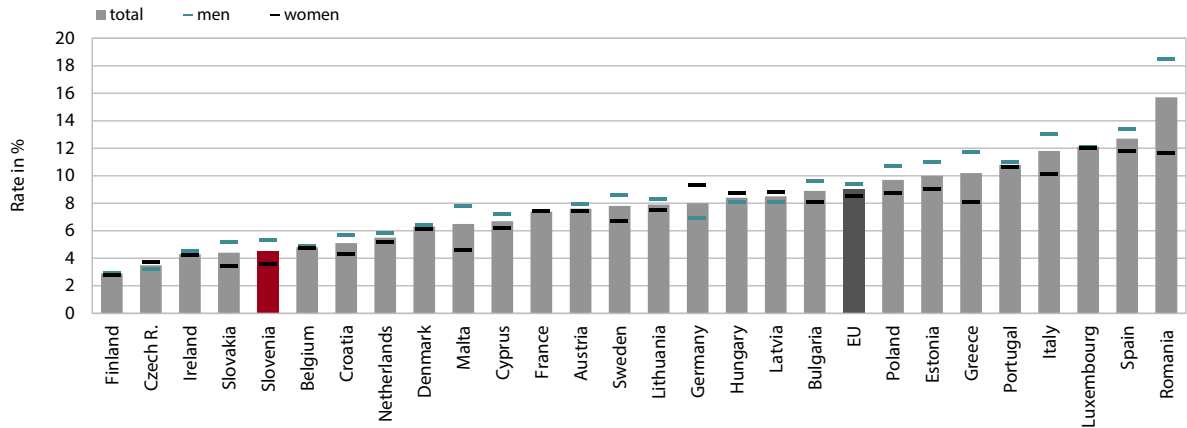
**The in-work at-risk-of-poverty decreased in 2017–2019<sup>2</sup> in all forms of employment, mostly among the self-employed.** The at-risk-of-poverty rate of temporary workers is higher than in the case of permanent employment contracts, but in 2017–2019 it decreased more than in the case of permanent employees.<sup>3</sup> Wage growth due to labour shortages is also likely to have contributed to reducing the at-risk-of-poverty rate among part-time employees, which fell sharply in 2017–2019, but it remains higher than for full-time employees.<sup>4</sup> The significant improvement in the situation of the self-employed in 2017–2019 was indicated by the at-risk-of-poverty rate of the self-employed, which almost halved and no longer exceeded the EU average.<sup>5</sup> With the COVID-19 epidemic in 2020, the positive trends were probably already interrupted in both Slovenia and the EU, as measures to retain jobs were not equally accessible to all groups of people in employment.

Table: At-risk-of-poverty rate of employed persons aged 18 years or more, in %

	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	SDS 2030 target
Slovenia	4.6	5.1	4.8	5.3	6.0	6.5	7.1	6.4	6.7	6.1	6.6	6.0	4.5	< 5
EU	N/A	N/A	N/A	8.5	9.0	8.9	9.1	9.6	9.7	9.9	9.6	9.3	9.0	

Source: Eurostat, 2021.  
Note: N/A – data not available.

Figure: At-risk-of-poverty rates of employed persons aged 18 years or more by gender, in %



Source: Eurostat, 2021.

<sup>1</sup> Among other things, a better educational structure of employed women compared to men contributes to this in Slovenia.  
<sup>2</sup> Data for 2016 and 2018 are used to calculate at-risk-of-poverty rates for 2017 and 2019.  
<sup>3</sup> The at-risk-of-poverty rate for temporary employees in 2019 was 6.3%, which is 3.6 p.p. less than in 2017. The at-risk-of-poverty rate for permanent employees was 2.7%, which is 0.9 p.p. less than in 2017.  
<sup>4</sup> The at-risk-of-poverty rate for full-time employees in 2019 was 4.2%, which is 1.6 p.p. less than in 2017, and the at-risk-of-poverty rate for part-time employees fell from 15.2% in 2017 to 7.8% in 2019.  
<sup>5</sup> The at-risk-of-poverty rate fell to 14%, which is 12.6 p.p. less than in 2017.

# Unemployment and long-term unemployment rates 3.19

**With the COVID-19 epidemic, the unemployment rate rose after a multi-year decline in the second quarter of 2020.** The decline until 2019 was associated with several years of high growth in economic activity and, consequently, stronger employment. In 2020, however, with the epidemic and containment measures, the unemployment rate increased, though significantly less than it would have without employment retention measures. In 2013–2019, the unemployment rates for men and women decreased with a similar dynamic,<sup>1</sup> but in 2020, unemployment increased more for women (by 1.2 p.p.; for men by 0.7 p.p.). After the global financial crisis, unemployment fell the most among the middle- and low-educated, which was in line with the structure of the economic activity recovery. With the COVID-19 crisis, however, it increased the most among the low-educated, as the epidemic disproportionately affected activities that employ the low-educated workforce. The focus of active labour market policy for young people and the increased volume of student work by 2019

contributed to a rapid decline in youth unemployment (15–24 years). The COVID-19 epidemic and the associated sharp decline in economic activity affected young people (15–24 years) the most in the labour market: in the second quarter of 2020, the youth unemployment rate in Slovenia increased by 9.1 p.p.,<sup>2</sup> mainly due to a significant decline in student work.

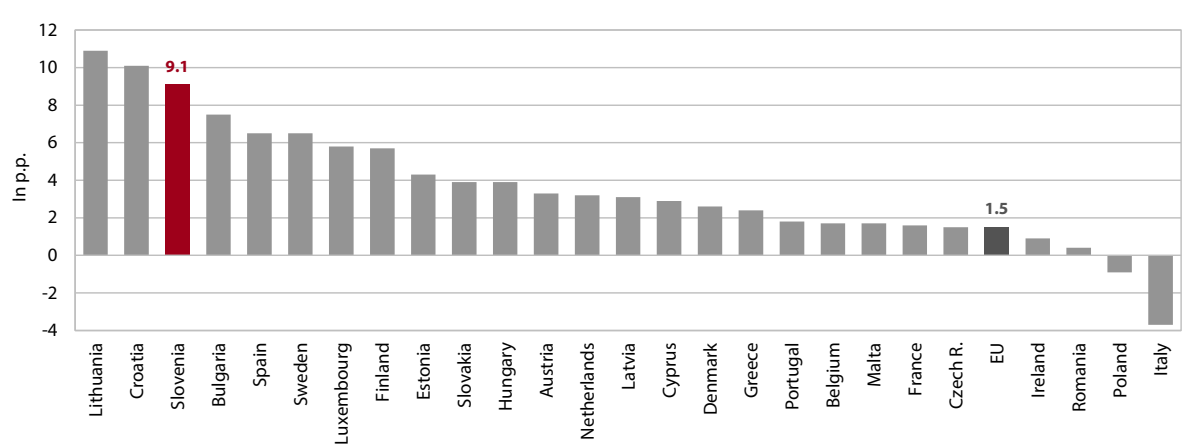
**The long-term unemployment rate was below the EU average until 2019, but it equalled it in the second quarter of 2020.** In 2009–2014, long-term unemployment increased significantly with modest labour demand.<sup>3</sup> During the period of economic growth, the situation initially improved only for the unemployed with shorter unemployment duration, but since 2015, in the context of labour shortage, the number of the long-term unemployed has also been declining. With the new crisis in 2020, the long-term unemployment rate in Slovenia has risen slightly, while the EU average fell markedly despite the epidemic.<sup>4</sup>

Table: Unemployment and long-term unemployment rates (15–74 years) in %

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Unemployment rate</b>													
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
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
<b>Long-term unemployment rate</b>													
Slovenia	1.9	1.7	3.2	3.5	3.9	5.1	5.3	4.7	4.3	3.3	2.3	1.8	2.0
EU	2.8	3.0	3.9	4.2	4.8	5.4	5.5	5.1	4.4	3.8	3.3	2.8	2.0

Source: Eurostat, 2021.  
Note: N/A – data not available; data for individual years refer to the second quarter.

Figure: Year-on-year change in youth unemployment rates (15–24 years) in the second quarter of 2020, EU



Source: Eurostat, 2021.  
Note: data for Germany not available.

<sup>1</sup> In 2019, the unemployment rate for women reached a record low level (4.7%).  
<sup>2</sup> The third highest year-on-year increase among EU Member States, but it remained below the EU average.  
<sup>3</sup> The increase was also influenced by the fact that Slovenia lags behind most other EU Member States in terms of both inclusion in active labour market policy programmes and funds earmarked for active labour market policies.  
<sup>4</sup> The reduction in the long-term unemployment rate in the EU is linked to the inactivity of those who lost their jobs before the pandemic and abandoned the search during lockdown (EC, 2020)).

Temporary and precarious employment

3.20

Following a reduction in 2018,<sup>1</sup> the share of precarious employment continued to decline sharply in 2019. In 2019 (latest data), the share in Slovenia was 2.6%, which is the lowest since 2000, while in the EU in the last ten years it ranged between 2.1 and 2.5%. The higher share in Slovenia can be related to the existence of student work and to more frequent use of precarious (i.e. short-term) employment in trade, transport and catering activities,<sup>2</sup> where the share of precarious employment is the highest among all activities. The decrease in the prevalence of precarious employment in recent years is mainly related to labour shortages, which has forced employers to enter into more indefinite contracts and reduce the volume of work through the student recruitment service. An analysis by the European Commission (2017) found that precarious employment, defined as low-wage temporary employment, is most common among women, young people and the low-skilled.

The prevalence of temporary employment in Slovenia has been on the decline since 2017, with the share falling below the EU average. In addition to demographic factors that reduce the supply of labour, in 2020 this was mainly due to the economic crisis related to the COVID-19 epidemic, which was most pronounced in the second quarter. During the first wave of the epidemic, employers first adjusted by not renewing temporary contracts (fixed-term employment contracts) and reducing the volume of student work, which in the second quarter of 2020 was as much as 50% lower than in the same period in 2019. The share of temporary employment in Slovenia in the second quarter of 2020 amounted to 9.3% and fell below the EU average in the second quarter of 2019. The share of temporary employment among young people (15–24 years) decreased to 51.9% in the second quarter of 2020, which is 9.9% p.p. less than in the same period in 2019 and meant the second largest reduction among EU Member States. Nevertheless, it remains among the highest among EU Member States.

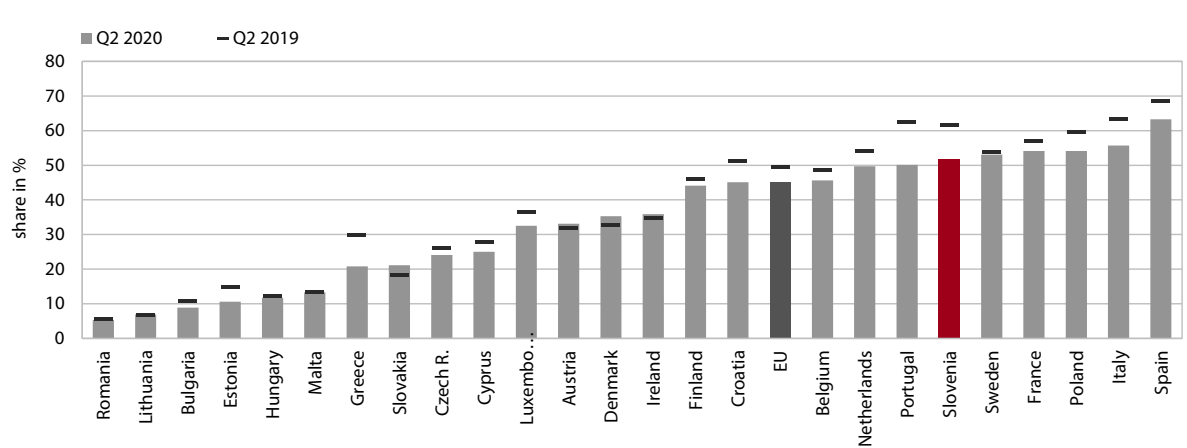
Table: Share of precarious and temporary employment in total employment (20–64 years), in %

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Share of precarious employment*													
Slovenia	3.9	4.1	4.3	4.8	4.4	3.9	4.1	4.6	4.2	4.5	3.7	2.6	N/A
EU***	2.3	2.1	2.3	2.4	2.4	2.3	2.4	2.5	2.5	2.4	2.4	2.3	N/A
Share of temporary employment**													
Slovenia	15.8	15.5	16.9	16.9	16.3	15.2	16.1	17.3	16.7	17.1	15.5	12.6	9.3
EU***	14.2	13.7	14.1	14.1	14.1	14.4	14.3	14.6	14.7	14.9	14.7	14.2	11.9

Source: Eurostat, 2021.

Notes: N/A – data not available. \* Annual data. \*\* Data refer to the second quarter of the year. \*\*\* The EU average after Brexit (EU-27) for temporary employment is more than one p.p. higher than the EU-28 average; for precarious employment the difference is around 0.3 p.p.

Figure: Share of young people (15–24 years) with temporary employment, in %



Source: Eurostat, 2021.

Note: \* data not available for Germany and Lithuania.

<sup>1</sup> While the International Labour Organisation defines precarious employment on the basis of seven criteria, Eurostat publishes the only regularly available data on precarious employment, where only those that are temporary and last less than three months are considered precarious. In this way, Eurostat covers only one dimension of precariousness.

<sup>2</sup> In Slovenia, in 2019 the share of precarious employment among employees in these activities was, at 4.6%, much higher than the EU average (2%).

Absence from work due to illness

3.21

In 2014–2019, absence from work due to illness<sup>1</sup> in Slovenia increased rapidly from year to year, but in 2020, according to data from the Health Insurance Institute of Slovenia (HIIS), it decreased slightly due to measures related to the COVID-19 epidemic. The rapid growth of absence from work in 2014–2019 can be linked to employment growth, later retirement, longer waiting times in healthcare and the ageing of the working population. Absence from work was significantly higher among women than among men, and the gap is widening every year, which can be partly explained by the increasing participation of children in kindergartens, full-time employment of women and poorly functioning system of long-term care to care for parents (informal caregivers being mostly women). According to National Institute for Public Health (NIJZ) data, in 2019, employed persons were on average absent from work for 17.7 calendar days, the share of absence from work due to illness<sup>2</sup> averaging 4.9%, which is the highest so far (NIJZ, 2021d). According to HIIS financial data, in 2020 the number of working days lost at the expense of employers decreased by 8.1% due to the COVID-19 epidemic, while at the expense of the HIIS it

increased by 4.6% or decreased by 1.2% on average: in the first half of 2020, there were fewer absences due to the cessation of public life and public transport and the closure of schools, kindergartens and many businesses; in the second wave, the number of lost working days increased sharply due to the number of COVID-19 patients and the isolation of positive individuals (HIIS, 2021a).

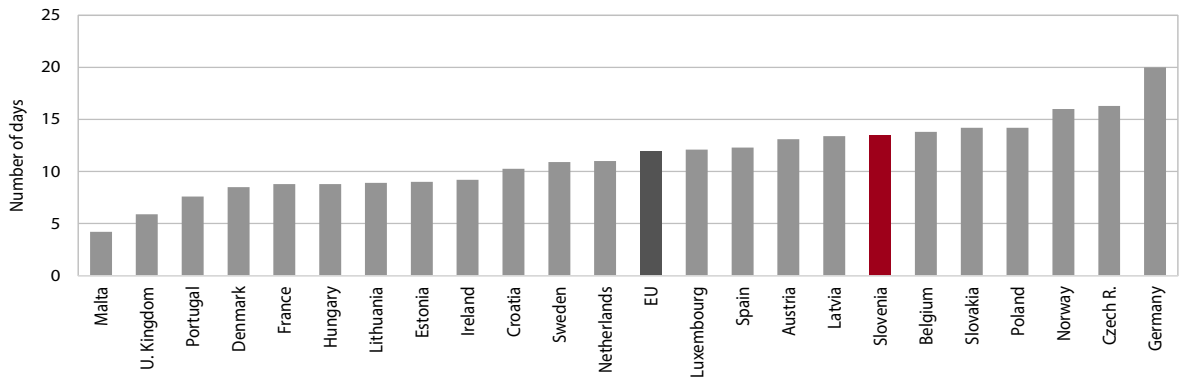
**In terms of working days lost, Slovenia exceeds the EU average.** In recent years, the number of working days lost per employed person due to illness, as reported to international databases (excluding the first day of absence and absence to care for a family member) has also increased. In 2018, the average number of compensated work days lost per year due to illness already totalled 13.5 in Slovenia, while in the 23 EU Member States for which comparable data are available it was 11.9. However, it should be noted that the international comparability of this indicator is limited due to methodological differences in data capture and differences in the health and social care systems and in eligibility criteria for sickness benefits.

Table: Absence from work due to illness

		2008	2013	2014	2015	2016	2017	2018	2019
Absence rate (percentage of calendar days lost per full-time worker), in %	Total	4.3	4.1	3.8	4.0	4.0	4.2	4.5	4.9
	Men	3.6	3.5	3.1	3.3	3.2	3.4	3.6	3.8
	Women	5.1	4.8	4.5	4.8	4.8	5.2	5.6	6.1
Number of calendar days lost per worker	Total	15.5	14.9	13.7	14.5	14.5	15.3	16.5	17.7
	Men	13.2	12.6	11.4	12.0	11.8	12.4	13.2	14.0
	Women	18.6	17.7	16.5	17.5	17.6	18.8	20.4	22.3
Number of working days lost per worker	Slovenia	11.5	11.6	11.3	12.0	12.2	13.1	13.5	N/A
	EU *	11.4	11.9	11.8	11.7	11.9	11.9	N/A	N/A

Sources: NIJZ, 2021d; WHO and HFA-DB, 2021. Notes: N/A – data not available. \* The data for the EU are WHO estimates for the EU-27.

Figure: Number of working days lost per employee, 2018 or last available year






Sources: OECD Stat, 2021 (for OECD member countries); WHO and HFA-DB, 2021 (for Croatia, Poland, Malta and the EU average). Note: For Portugal and EU average, the figure is for 2017; for Ireland, Sweden, Latvia, Poland and Norway it is for 2019. Norway and the United Kingdom are not included in the EU average.

<sup>1</sup> Temporary absence from work for justified medical reasons, also referred to as sick leave, is one of the indicators for monitoring the health status of the employed (NIJZ, 2016).  
<sup>2</sup> The percentage of calendar days of incapacity for work per full-time employee.



# 4 A well-preserved and healthy natural environment

## A low-carbon circular economy

- 4.1 Emission productivity 
- 4.2 Energy efficiency
- 4.3 Share of renewable energy sources 
- 4.4 Modal split of transport
- 4.5 Resource productivity 
- 4.6 Waste
- 4.7 Environmental taxes

## Sustainable and efficient natural resource management

- 4.8 Ecological footprint 
- 4.9 Utilised agricultural area 
- 4.10 Agricultural intensity
- 4.11 Intensity of tree felling
- 4.12 Quality of watercourses 
- 4.13 Ambient air quality
- 4.14 Functionally derelict areas





Emission productivity

4.1

**Emission productivity continued to rise even in the period of economic growth, although at around the same pace as in the EU, so that until 2018 the gap with the EU remained almost unchanged.** The growth of productivity measured by the ratio of GDP to greenhouse gas (GHG) emissions accelerated again after stalling during the global financial crisis in 2008–2014. It also rose more steeply in 2019, when economic growth was achieved with lower emissions again, according to preliminary estimates. However, the gap with the EU average did not narrow significantly in the last years analysed: in 2018, around 13% less GDP was generated per unit of GHG emissions than in the EU overall, which meant a 1 p.p. larger gap than in 2014.

**In 2019, GHG emissions declined slightly for the second consecutive year but remained higher than in 2014, when they were the lowest in the last two decades.** After dropping during the global financial

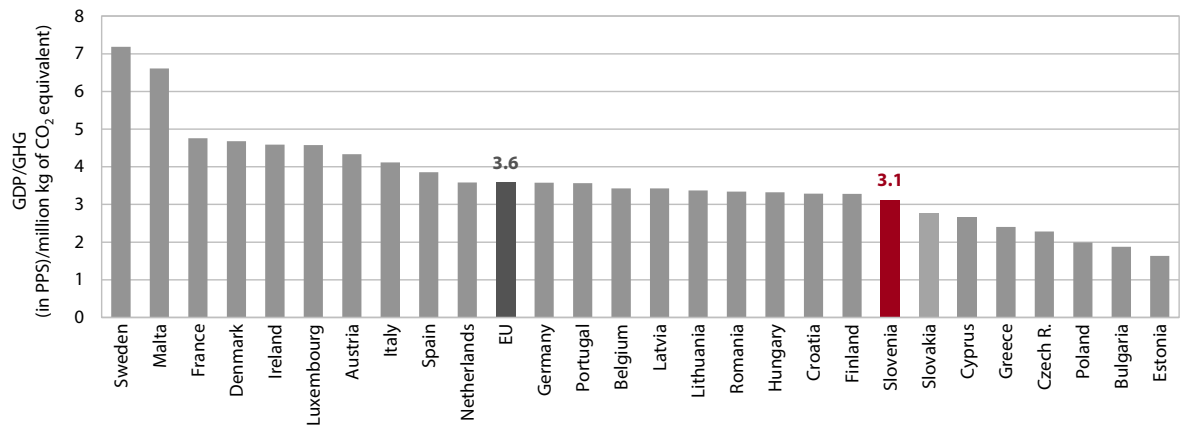
crisis, as expected, they had risen slightly and remained roughly unchanged until 2018. In 2019, they dropped somewhat more again, by 2.6% to 17.1 million tonnes of CO<sub>2</sub> equivalent, but this was 2.9% higher than in 2014. The most (around 60% of total emissions) derive from the transportation and energy sectors, and one tenth each from fuel consumption in industry and agriculture. Transport is the only activity where emissions were rising relatively rapidly in the long term, but after 2016 their growth came to a halt. GHG emissions in the EU as a whole declined faster. In 2005–2018, i.e. after the EU Emissions Trading Scheme had been launched, emissions from the ETS sectors, i.e. the sectors included in the Emissions Trading System (EU ETS), declined by around a quarter (in the EU whole somewhat more) and emissions from the non-ETS sectors by around 6% (in the EU by around 9%). In 2020, emissions fell further according to preliminary estimates, reflecting the containment measures related to the COVID-19 epidemic.

Table: Emission productivity in GHG emissions

		2000	2005	2008	2010	2013	2014	2015	2016	2017	2018	2019	SDS 2030 target
Emission productivity, in PPS/million kg of CO2 equivalent													
Slovenia		1.6	1.9	2.2	2.2	2.4	2.7	2.8	2.8	2.9	3.1	3.4	povpr. EU
EU		1.8	2.1	2.5	2.6	2.9	3.1	3.2	3.3	3.4	3.6	N/A	
Slovenia/EU, index		90.6	90.9	85.7	83.8	83.0	88.0	87.6	84.1	86.2	86.9		
GHG emissions, index, 1990 = 100 (for total GHG); or 2005 = 100 (for GHG ETS and non-ETS)													
Total	Slovenia	100.0	110.0	115.9	105.6	98.1	89.2	90.2	94.8	95.2	94.3	91.8	-
	EU	91.8	93.7	90.8	86.2	80.5	77.7	78.8	78.8	79.3	77.5	N/A	80.0
ETS	Slovenia		100.0	101.6	93.2	84.7	70.1	70.1	74.3	75.3	74.4	71.7	-
	EU		100.0	95.3	86.7	80.5	77.5	78.1	76.7	76.5	73.1	N/A	79.0
Ne-ETS	Slovenia		100.0	108.3	98.0	92.5	89.4	90.9	95.1	95.0	94.2	92.3	< 104.0
	EU		100.0	98.4	96.6	90.7	87.6	89.2	90.4	91.6	90.9	N/A	90.0

Source: Eurostat, 2021 and ARSO, 2021a ; calculations by IMAD. For 2019 preliminary data.  
Notes: 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, 2018



Source: Eurostat, 2021; calculations by IMAD.

Energy efficiency

4.2

While in the years after the global financial crisis, primary energy consumption declined mainly as a result of reduced coal consumption, its decline during the COVID-19 crisis reflected lower energy consumption in transport. Following a period of moderate economic activity, changes in thermal power generation<sup>1</sup> and lower demand for heating in some of the years, developments in the subsequent years were affected not only by rising energy consumption in transport, but also by certain other factors (such as annual river-level fluctuations and the schedule of regular overhauls in the Krško nuclear power plant<sup>2</sup>). In 2019, total primary energy consumption declined more strongly again, including under the impact of the slowing economic activity (with lower consumption of solid and liquid fuels). In 2020, it fell even more, given the containment measures taken during the epidemic. With consumption in transport falling by more than a tenth, primary energy consumption declined by more than 3% in 2020 according to our estimates. *Energy efficiency* movements were thus also relatively favourable in terms of meeting the Europe 2020 Strategy target (in both primary and final energy consumption)<sup>3</sup> due to lower activity in both above-mentioned crises (in 2009 and 2020).

Over the long term, energy productivity increased at roughly the same pace as in the EU as a whole. The growth of energy productivity (defined as the ratio of generated GDP<sup>4</sup> to total energy consumption) came to a halt only in the first years of the financial crisis. In 2011, it was thus almost a fifth lower than the EU average. In 2019, it increased more than in the EU amid higher growth in GDP. Slovenia's gap in this comparison thus decreased to around a tenth and was the smallest since 2000.

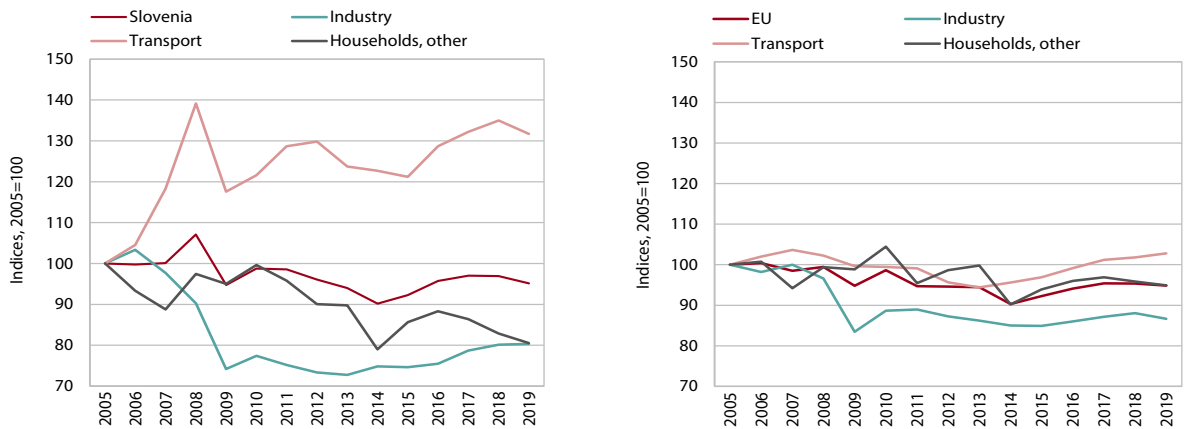
Since 2005, final energy consumption has also decreased at roughly the same pace as in the EU. Final energy consumption,<sup>5</sup> which declined particularly after 2008, has risen since 2014. In the industry sector it fell particularly due to the modernisation of aluminium production, but in recent years it has again been rising due to economic growth. In the transport sector, it rose owing to increased transit following EU enlargements<sup>6</sup> and then fluctuated for several years. Household energy consumption, on the other hand, has declined as a consequence of occasionally higher temperatures during the heating season, installation of heat cost allocators, more efficient heating appliances and the energy renovation of buildings. In 2019 and particularly in 2020, the main reason for lower final energy consumption was lower consumption in transport.

Table: Primary energy consumption, index, 2005 = 100

	2000	2005	2008	2010	2011	2013	2014	2015	2016	2017	2018	2019	Europe 2020 target
Slovenia	87.2	100.0	106.6	97.0	98.0	91.8	88.2	87.5	90.3	92.8	91.7	90.0	104.3
EU	93.3	100.0	99.4	97.4	94.4	92.5	88.9	90.4	91.1	92.5	91.9	90.3	86.6

Source: Eurostat, 2021; EC Energy Efficiency, Reporting Targets; calculations by IMAD.

Figure: Final energy consumption by sector of consumption, Slovenia (left) and the EU average (right)



Source: Eurostat, 2020; calculations by IMAD.

<sup>1</sup> The Šoštanj thermal power plant was technologically modernised (with TEŠ 6), while the Trbovlje thermal power plant was shut down.  
<sup>2</sup> Every third year there is no regular (monthly) overhaul, which means 10% more nuclear power generated (2 p.p. higher primary consumption).  
<sup>3</sup> One of the three environmental targets of EU Member States for 2020 is improving energy efficiency, i.e. reaching a 20% reduction in energy consumption with regard to consumption projected under the baseline scenario with no additional measures. Most EU Member States thus have to reduce their energy consumption by 2020, while some, including Slovenia, are only required to limit its growth.  
<sup>4</sup> In comparisons over time, we use GDP at fixed prices, while in comparisons between countries in individual years, GDP in purchasing power standards is used.  
<sup>5</sup> Final energy consumption is primary consumption of energy excluding energy used by energy transformation processes, by the energy sector itself, and losses.  
<sup>6</sup> See also Indicator 4.5. Energy consumption in road transport accounts for 39% of final energy consumption in Slovenia (in the EU, 29%).

Share of renewable energy sources

4.3

**The share of renewable energy sources (RES) in final energy consumption increased only modestly in the last fifteen-year period analysed.** It rose more strongly in 2009, amid a fall in final energy consumption during the global financial crisis and a concurrent increase in RES consumption. It was the highest in 2013–2015. Between the years it fluctuated with regard to RES consumption for heating (the impact of milder winters) and the use of hydropower (the impact of annual river flows). Total RES consumption in Slovenia rose the least among all EU Member States in 2005–2019, by 6% (in the EU, by 83% on average). Slovenia is one of the six EU Member States whose shares were the farthest from the 2020 target (which is 25%) in 2019. Its share was also quite far from the SDS 2030 target (which is 27%).<sup>1</sup> We estimate that in 2020 the share of RES increased by one to two percentage points amid lower consumption of liquid fuels and slightly higher use of RES.

**Slovenia has a high share of traditional and a low share of other renewable sources in total RES**

**consumption.** *Traditional RES* (solid biomass and hydropower) still account for well above 80% of total RES consumption in Slovenia, compared with well below 60% in the EU overall. The extensive use of biomass for heating is generally desirable, but if biomass is not properly managed, 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 widest in the use of wind farms and heat pumps.

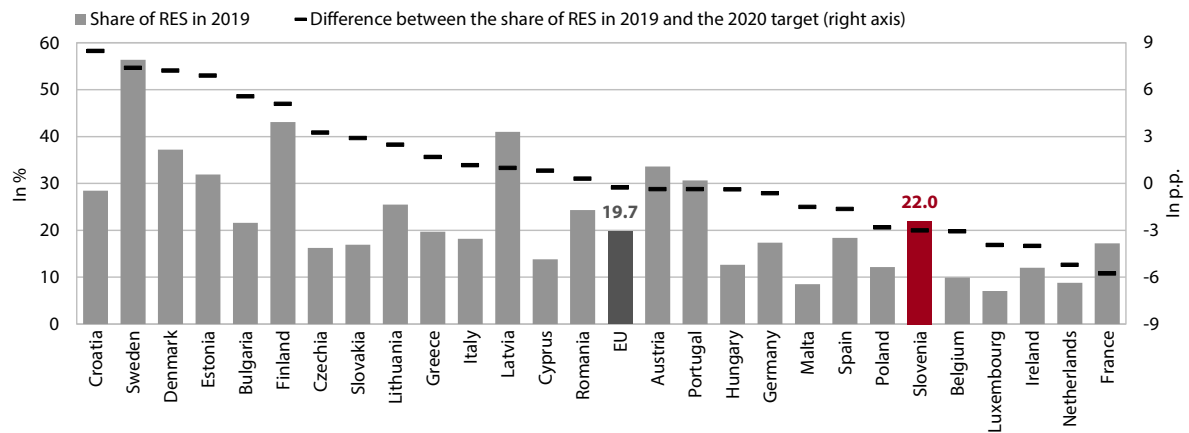
**Within the support scheme<sup>2</sup> for electricity generation from RES, support for solar power plants has predominated after 2010.** Support for solar power plants accounted for 64%, support for biomass power plants for 20% and support for biogas power plants for 11% of all support in 2020.<sup>3</sup> The rest was dedicated to hydropower plants. The total amount of support, which had declined in the previous two years, rose by 7% to EUR 103 million in 2020.

Table: Share of RES consumption in gross final energy consumption, in %

		2005	2008	2010	2013	2014	2015	2016	2017	2018	2019	Europe 2020 target	SDS 2030 target
RES, total	Slovenia	19.8	18.7	21.1	23.2	22.5	22.9	22.0	21.7	21.4	22.0	25.0	27.0
	EU	10.2	12.6	14.4	16.7	17.5	17.8	18.0	18.5	18.9	19.7	20.0	
In electricity	Slovenia	28.7	30.0	32.2	33.1	33.9	32.7	32.1	32.4	32.3	32.6		
	EU	16.4	18.5	21.3	26.9	28.7	29.7	30.2	31.1	32.2	34.1		
In transport	Slovenia	0.8	1.8	3.1	3.8	2.9	2.2	1.6	2.6	5.5	8.0	10.0	
	EU	2.0	4.1	5.5	6.1	6.6	6.8	7.2	7.5	8.3	8.9	10.0	
In heating	Slovenia	26.4	27.5	29.5	35.1	34.6	36.2	35.6	34.6	32.3	32.2		
	EU	12.4	15.3	17.0	19.1	20.0	20.3	20.5	20.9	21.2	22.1		

Source: Eurostat, 2021.

Figure: Share of RES in final energy consumption, 2019



Source: Eurostat, 2021; calculations by IMAD.

<sup>1</sup> 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%.

<sup>2</sup> 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.

<sup>3</sup> IMAD's estimate on the basis of Borzen's nine-month and annual reports.

Modal split of transport

4.4

Owing to Slovenia's transit location, road freight traffic is relatively dense, but as a lot of freight is also transported by rail, the share of road transport is lower than in the EU as a whole. Over a longer period, the share of road transport declined slightly, to less than two thirds (the EU average<sup>1</sup> is around three quarters). In 2005–2018, the volume of road freight transport increased by around 30%; the volume of freight transport by rail rose almost twice as much (in the EU by less than 8% in both transport modes). From the environmental perspective, a high growth of road transport is less desirable. 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 (predominantly from Hungary, Croatia and Romania). The increased transit is a consequence of EU enlargements and the opening of competition between hauliers on the common transport market, but it is also related to Slovenia's small size and its transit location. The volume of total freight transport per inhabitant is very high in Slovenia, being higher only in five other EU Member States. Within that, transport by road is a fifth higher and transport by rail 2.5 times higher than the EU average. With the modernisation of the Divača-Koper railway line, railway transport will strengthen further, as it

is to a large extent linked to the transshipment of goods in the Port of Koper. We estimate that in 2019 the share of road freight transport increased slightly, while in 2020 it remained approximately the same.

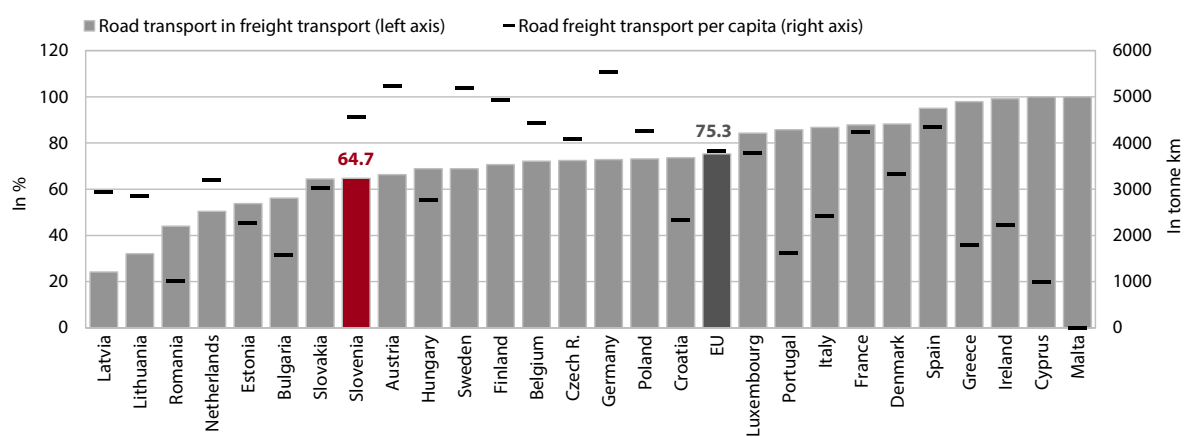
**Transport by passenger car is the predominant mode of passenger transport in all EU Member States, but in Slovenia its share is among the highest.** This can in part be attributed to the diversity of its landscape and its dispersed settlements,<sup>2</sup> which – in spite of subsidies – limit a greater 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).<sup>3</sup> 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 (in Slovenia 18%, in the EU 12%). In 2020, Slovenia faced major restrictions on public passenger transport due to the epidemic. Car travel was also limited owing to the closure of municipalities and quarantines. The already low share of public passenger transport in total transport is thus likely to have fallen further.

Table: Road transport in freight transport and car transport in passenger transport\*, in %

		2005	2008	2010	2011	2013	2014	2015	2016	2017	2018
Freight	Slovenia	68.9	70.3	72.0	68.2	65.2	64.0	65.0	66.1	64.5	64.7
	EU	74.4	74.3	76.1	74.6	73.9	73.9	74.2	74.4	75.2	75.3
Passenger	Slovenia	85.6	86.4	86.8	86.3	86.3	86.1	86.3	86.5	86.4	85.6
	EU	82.6	82.2	83.1	81.9	82.2	82.5	82.7	82.9	82.9	82.6

Source: Eurostat, 2021. 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, 2018



Source: Eurostat, 2021.

<sup>1</sup> Road transport performance is calculated according to the territoriality principle (including transport performance that takes place on the territory of the country) and is therefore comparable to rail and inland waterway transport.  
<sup>2</sup> Slovenia has a relatively low share of the population living in cities and a relatively large share of the population living in rural areas (20% and 44% respectively; in the EU, 38% and 28%; source: Eurostat, for 2019).  
<sup>3</sup> Eurostat, 2019.

Resource productivity

4.5

**Resource productivity and material consumption per capita are approximately on par with the EU average.** *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 until 2009). The consumption of non-metallic minerals,<sup>1</sup> 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 (to an only few percent lag behind the EU average). In 2020, construction activity was not significantly affected by measures to contain the epidemic. A somewhat larger decline was recorded only

for liquid fuel consumption, so that no major change in material productivity is to be expected.

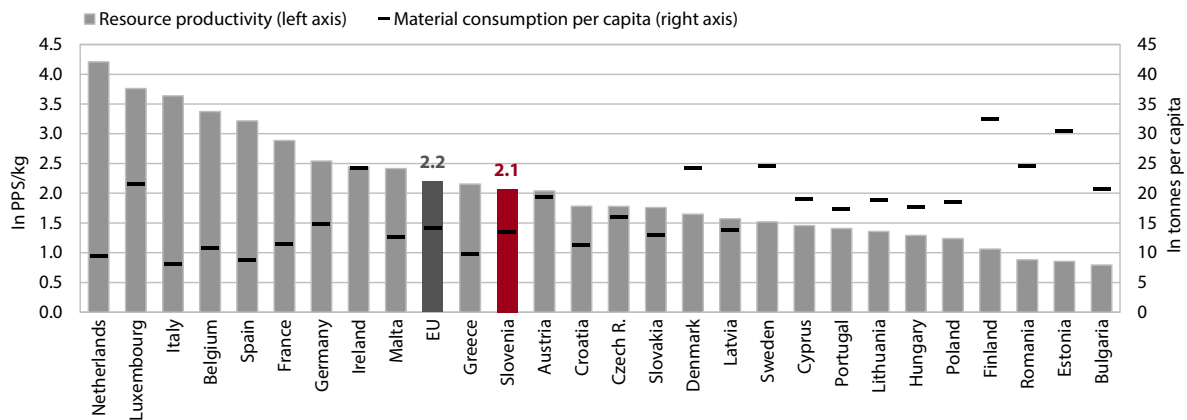
**Slovenia's self-sufficiency in materials is slightly above the EU average.** Slovenia is well supplied with some resources. In the breakdown of domestic extracted resources, more than half is sand, gravel, limestone and gypsum. Other important domestic resources are agricultural products, lignite and wood. *Net imports* account for around 13% of total material consumption. In 2019, the bulk of net imports were petroleum products, gas, metal ores 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 in 2019 they were already lower, the lowest in the last five-year period. High net exports of raw material otherwise decrease domestic material consumption in the calculation, but from the point of view of efficient use of domestic resources, they mean untapped potential for creating higher value added in the domestic manufacturing industry.<sup>2</sup>

Table: Resource productivity, in PPS/kg

	2000	2005	2008	2010	2012	2013	2014	2015	2016	2017	2018	2019	SDS 2030 target
Slovenia	0.92	1.10	1.13	1.33	1.76	1.80	1.73	1.79	1.89	1.95	1.87	2.07	3.5
EU	1.19	1.34	1.49	1.73	1.84	1.91	1.93	2.01	2.06	2.09	2.12	2.20	
Slovenia / EU, index	77.4	82.2	76.0	77.1	95.7	94.3	89.6	89.2	91.6	93.5	88.1	94.0	

Source: Eurostat, 2021 and SURS, 2021; 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, 2019



Source: Eurostat, 2021.

<sup>1</sup> 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 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 industry and only 7% in manufacturing.  
<sup>2</sup> See also the indicator Intensity of tree felling.

Waste

4.6

The quantity of generated waste, having declined during the global financial crisis, has again been rising following it. Around 8.4 million tonnes of waste was created in 2019, which is roughly the same as one year earlier, but 88% more than in 2012 when their quantity was the lowest in the analysed period (since 2000).<sup>1</sup> Around nine tenths of waste was generated in *production and service activities*. After 2012, the amount of waste increased due to a significant rise in mineral, i.e. construction, waste, which accounts for the majority of waste due to its high specific weight (the quantity of this waste almost tripled in the period analysed). *Municipal waste* has increased by 43% since 2012, its quantity per person already exceeding the EU average. Especially problematic for the environment is hazardous waste. This is however also increasing in the long term and accounts for around 2% of the total weight of waste.

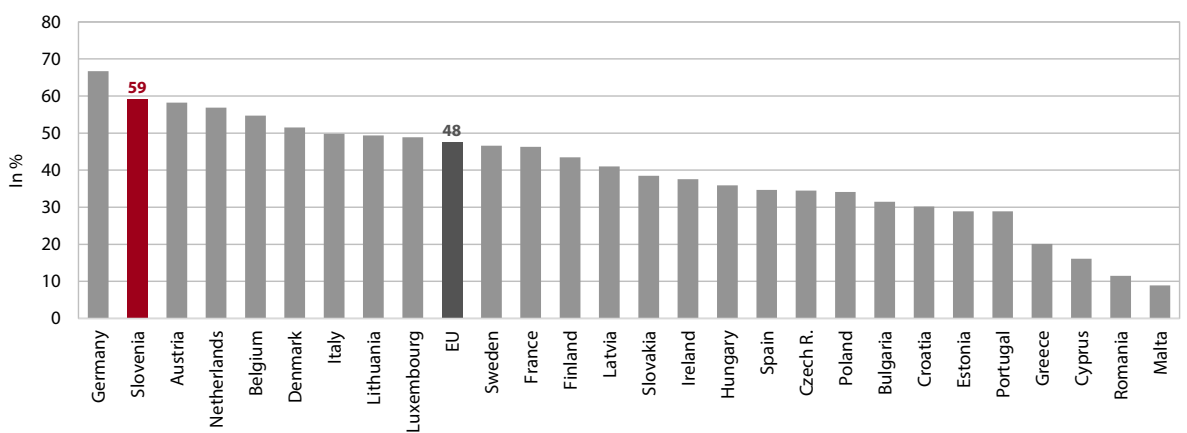
With more waste recovered, the share of landfilled waste has been successfully reduced, but storing the increasing amount of waste in landfills remains a significant problem. In total, around 9.4 million tonnes of waste was recovered in 2019. In the total amount of recovered waste, which is also increasing with rising quantities of generated waste, recycling (a very desirable form of recovery from an environmental perspective) is increasing more slowly, while backfilling is increasing faster. *Landfilling*, the least favoured option in the waste-management hierarchy, has been successfully reduced in recent years. Within that, landfilling also decreased in municipal waste, around three quarters of which was already collected separately, while recycling increased significantly. The main problem is the growing amount of packaging waste, which needs to be addressed by more radical measures, including the promotion of reduced use of packaging materials.

Table: Waste generation and treatment

	2000	2004	2006	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Waste generation excluding mineral waste, kg per capita													
Slovenia	N/A	2,163	1,982	2,018	1,991	1,706	1,692	1,604	1,684	1,481	1,553	1,545	1,506
EU	N/A	1,800	1,810	1,720	N/A	1,720	N/A	1,735	N/A	1,763	N/A	1,818	N/A
Of which: Municipal waste generation, kg per capita													
Slovenia	513	417	431	422	352	362	414	433	451	465	478	495	509
EU	513	500	513	503	499	488	478	478	480	490	491	492	502
Waste recycled, total, excluding mineral waste, the share of total waste treated, %													
Slovenia	N/A	N/A	N/A	63.0	71.3	73.2	77.8	77.3	77.9	79.8	83.9	87.5	84.5
EU	N/A	N/A	N/A	54.0	N/A	54.0	N/A	55.0	N/A	56.0	N/A	N/A	N/A
Of which: municipal waste recycled, the share of total municipal waste generated, %													
Slovenia	6.0	20.4	15.4	22.4	35.6	41.9	34.8	36.0	54.1	55.6	57.8	58.9	59.2
EU	27.3	31.8	33.2	38.0	38.9	40.9	41.5	43.4	44.9	46.5	47.1	47.3	47.6

Source: Eurostat, 2021 and SURS, 2021.  
Note: The exclusion of mineral waste improves 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 – not available.

Figure: Share of municipal waste recycled, 2019



Source: Eurostat, 2021.  
Note: Data for Italy, Ireland, the Czech Republic, Bulgaria and Cyprus are for 2018.

<sup>1</sup> In 2012, total waste decreased by around one quarter. The decline was, in addition to a reduction in construction waste, also due to methodological changes (some waste categories being reclassified as by-products).

Environmental taxes

4.7

**After rapid growth in previous years, revenues from environmentally related taxes have remained roughly unchanged in nominal terms since 2017.** In 2019, nominal revenues were slightly lower year on year for the first time since 2011 (-0.3%) due to a decline in revenues from energy taxes and taxes on pollution.<sup>1</sup> Long-term revenue growth before 2018 was underpinned mainly by growth in *fuel consumption in transport* and *excise duties on motor fuels*,<sup>2</sup> which moderated significantly in 2018–2019. The moderation of growth is linked to lower excise duties on unleaded petrol and diesel, introduced in May 2018 to neutralise the pressure from high crude oil prices, and the slowdown in economic growth. In 2020, excise duties declined slightly further,<sup>3</sup> particularly on petrol, while excise duties on diesel approached 2019 levels towards the end of the year after a decline in the first half. According to preliminary state budget data, in 2020 the decline in revenue from excise duties deepened due to both lower excised duties and lower

traffic (freight and passenger) as a consequence of the containment measures related to the epidemic.

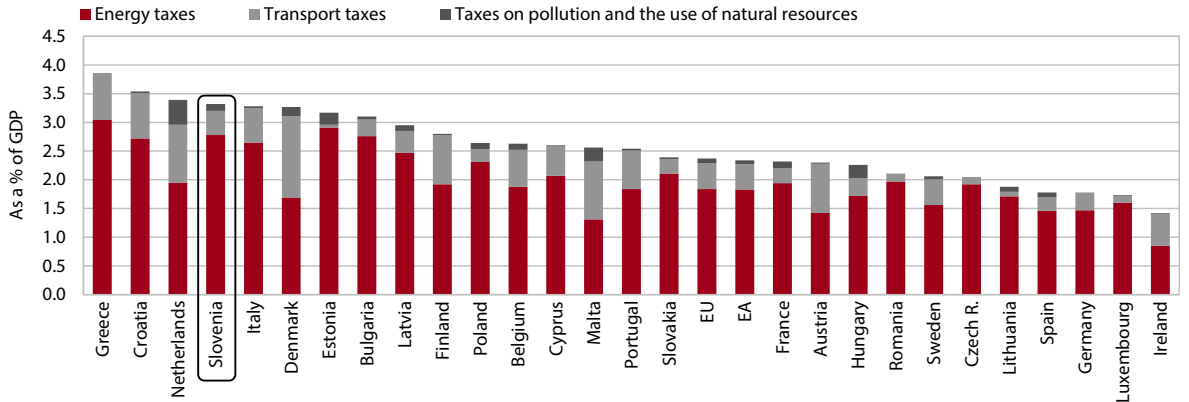
**Revenue from environmental taxes as a share of GDP are among the highest in the EU, despite the decline.** In 2005–2016, they increased relative to GDP due to a rise in taxes on energy, then fell notably in the following three years, in 2019 to 3.3% of GDP. Compared with the EU average, their share in GDP was significantly higher. However, since 2013, when the gap was the widest, it has been narrowing and was less than 1 p.p. in 2019. The gap arises from energy taxes, which accounted for 84% of all environmental taxes in Slovenia in 2019. The high figure in Slovenia is a consequence of relatively high purchases and consumption of energy, which is related not only to extensive transit traffic and the strong transport sector in Slovenia, but also to dispersed settlement and the insufficiently developed public transport infrastructure.

Table: Revenue from environmental taxes

	2000	2005	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
In nominal terms, in EUR million													
Slovenia	666	929	1.260	1.310	1.276	1.389	1.428	1.453	1.509	1.563	1.602	1.609	1.604
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	3.69	3.42	3.32
EU	2.57	2.54	2.36	2.36	2.41	2.45	2.47	2.47	2.45	2.47	2.42	2.40	2.37
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	9.82	9.06	8.80
EU	6.24	6.38	6.01	6.05	6.09	6.04	6.02	6.02	5.99	6.04	5.9	5.84	5.76

Source: Eurostat, 2021.

Figure: Revenue from environmental taxes, 2019



Source: Eurostat, 2021.

<sup>1</sup> Environmental taxes include energy taxes, transport taxes and taxes on pollution and the use of natural resources.  
<sup>2</sup> Among EU Member States, the contribution of fuel consumption in road transport to energy intensity was higher only in Luxembourg, Malta and Cyprus. The tax rates on motor fuels are typically higher than in other energy sources. Revenue thus also depends on the structure of the tax base, in addition to its size.  
<sup>3</sup> The exception was May, when crude oil prices plunged and excise duties were raised significantly, so that prices remained around 1 euro per litre.



Ecological footprint

4.8

Slovenia's ecological footprint, a composite indicator of environmental development, remained unchanged in 2015–2017 and close to the EU average, which indicates a significant environmental burden.<sup>1</sup> It is expressed in global hectares (gha), a standardised unit of biologically productive area. A biologically productive area is the fertile area needed to satisfy human needs for food and a particular lifestyle and to absorb or dispose of the waste generated in the process. The largest component of the ecological footprint is (i) the carbon footprint, as a result of high carbon dioxide and other GHG emissions, followed by (ii) the biological footprint, i.e. the footprint of cropland, 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 global financial crisis, then – unlike the EU average – increased slightly. In 2015–2017 it amounted to 4.9 gha/person (4.90 in 2017 and 4.87 in 2015 and 2016). In 2017, the last year of the calculation, it was 3% higher than the EU average and also higher than in most neighbouring countries. This indicates economic development with a relatively high level of natural resource use and environmental pollution, meaning that Slovenia is not on track to achieve the SDS target.

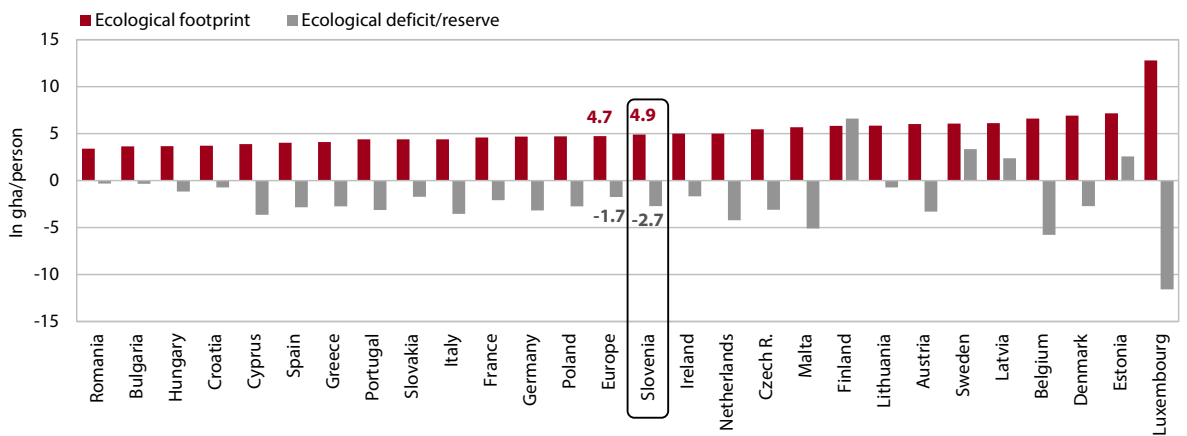
With its relatively high ecological footprint, the ecological deficit, i.e. the negative difference between the ecological footprint and biological capacity, was also high. Biological capacity or biocapacity refers to the biologically productive areas that are capable of self-regeneration.<sup>2</sup> Like the ecological footprint, they are 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 cropland and fishing grounds, is relatively modest compared to the EU average. The results of the latest calculations show that Slovenia's ecological footprint is more than twice as high as the capacity of its nature to regenerate. Most EU Member States have an ecological deficit – only some Northern countries with sustainable economies and relatively extensive fishing grounds have an ecological reserve. The ecological deficit in Slovenia is higher than the EU average and the global average.

Table: Ecological footprint in gha/person

	2000	2005	2008	2010	2012	2013	2014	2015	2016	2017	SDS 2030 target
Slovenia	4.8	5.4	5.7	5.1	4.7	4.6	4.6	4.9	4.9	4.9	3.8
Europe	5.1	5.3	5.5	5.1	4.9	4.9	4.9	4.7	4.6	4.7	
World	2.5	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.7	2.8	
Slovenia/Europe, index	93.9	101.7	104.7	99.4	96.1	94.2	96.0	104.3	105.4	103.4	

Source: York University Ecological Footprint Initiative & Global Footprint Network, 2021.  
Note: According to the latest calculations, the ecological footprint value for Slovenia for 2016 was revised downwards from 5.1 to 4.9 gha/person.

Figure: Ecological footprint and the ecological deficit/reserve, 2017



Source: York University Ecological Footprint Initiative & Global Footprint Network, 2021.

<sup>1</sup> The ecological footprint is measured by the Global Footprint Network. The results of its calculations are available for around 150 countries for individual years of 1961–2017.  
<sup>2</sup> 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 in Slovenia accounts for a significantly lower share of total land than in the EU as a whole, but after a long-term decline, this relatively modest share has stabilised.** In 2019, utilised agricultural area (UAA)<sup>1</sup> covered around 480,000 hectares. Mainly due to the abandonment of agriculture and overgrowth of land by trees and shrubs, but also its conversion to built-up land, this is 15% less than when Slovenia became independent, but the same as in 2012.

**In light of ensuring conditions for local food production, the modest share of arable land is particularly worrying.** In terms of *arable land* per person, which is the most important type of land from a food security point of view, Slovenia is one of the last four countries in the EU. In 2019, arable land per person amounted to around 8.4 ares (the EU average: 22.2 ares) or 174,000 hectares in total. Only around 3% of this land was dedicated to growing vegetables, as a large share of fields is used to grow fodder crops. These are also

produced on *permanent grassland*, which covered the most, or around six tenths of utilised arable land. Around 6% of agricultural area was accounted for by permanent cropland, where vineyards and orchards predominated.

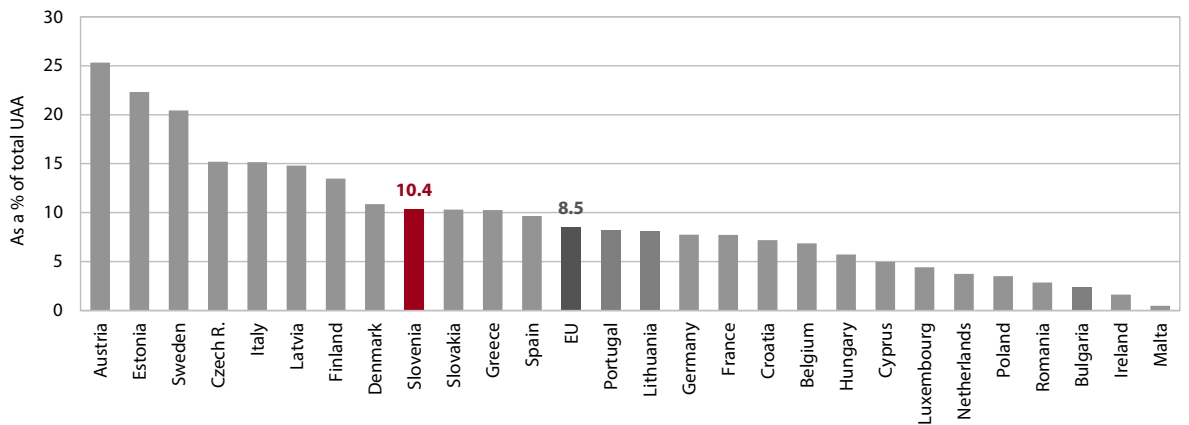
**Organic farming, the most desirable form of agricultural production from an environmental perspective, is more widespread in Slovenia than in the EU as a whole and is increasing.** One tenth of all agricultural holdings were included in controlled organic farming in 2019. Also here, permanent meadows and pastures dedicated to the production of fodder account for the largest share, the shares of other types of land being relatively small. This is, however, not in line with demand, which is greatest for ecologically produced fresh fruit and vegetables and vegetarian processed foods. There is still considerable scope for further development of organic farming in Slovenia, given the natural conditions, i.e. the high share of farms in mountainous and other remote areas where intensive conventional farming is not possible.

Table: Utilised agricultural area (UAA), total and under organic farming

	2005	2008	2010	2012	2013	2014	2015	2016	2017	2018	2019	SDS 2030 target
UAA, share in total area, in %												
Slovenia	25.1	24.3	23.8	23.7	23.6	23.8	23.5	23.6	23.7	23.6	23.7	>24.0
EU	N/A	40.0	39.4	38.9	38.9	39.0	39.2	39.1	39.1	39.2	39.2	
UAA, share under organic farming, in %												
Slovenia	4.6	6.1	6.4	7.3	8.1	8.6	8.9	9.1	9.6	10.0	10.4	
EU	N/A	N/A	N/A	5.9	5.9	6.1	6.6	7.1	7.5	8.0	8.5	

Source: Eurostat, 2021; calculations by IMAD.  
Note: N/A – not available.

Figure: Share of agricultural areas under organic farming, 2019



Source: Eurostat, 2021.

<sup>1</sup> Utilised agricultural area is the total area taken up by arable land, permanent grassland, permanent crops and kitchen gardens used by a holding. Arable land is any area ploughed at least every five years and used to grow crops, vegetables, flowers or ornamental plants. Arable land also includes fallow land and land sown in the second half of the year, areas under clover and lucerne, grassland ploughed after five years and hop fields. Land under permanent crops includes intensive and extensive orchards, olive plantations, vineyards, nurseries, and vine and root-stock nurseries. Permanent grassland is land used for grazing or mown for hay that has not been ploughed for at least five years.

Agricultural intensity

4.10

**Given its moderate average crop and animal production, Slovenia is not among the countries with high farming intensity.** The development of Slovenian agriculture has for some time been marked by dualism: besides increased agricultural intensification, which is related to a decline in the number of agricultural holdings and thus greater concentration of crop and animal production, Slovenia is also seeing an increase in organic farming, which takes place in harmony with nature and is the most desirable from an environmental perspective. A comparison with the EU average in *crop production* does not paint a uniform picture, which is evident from the average yields for Slovenia's two most important crops, wheat and maize: for wheat the yield per hectare tends to be lower than the EU average while for maize it is usually higher. Under the impact of weather conditions, the yields of all crops fluctuate significantly from year to year, but in the long term they are rising with improvements in technology. As long as they are not too high, this means an improvement in the exploitation of natural resources. The environmental burden of *livestock production*, as measured by the number of animals per unit of agricultural area, is not among the lowest given the natural conditions, but the average milk yield per animal is below the EU average. From the point of view

of the burden on animals, this is favourable, but from the point of view of the environmental impact per unit of production, it could be somewhat higher.

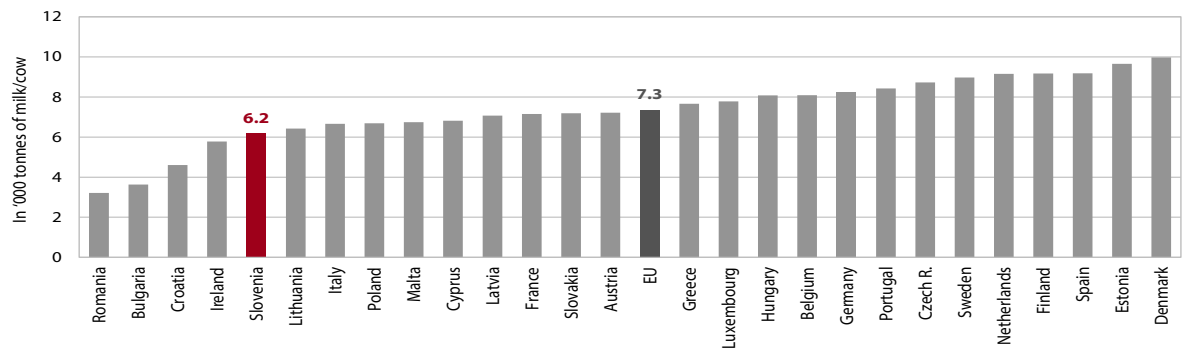
**As to the consumption of main agricultural inputs, the decline in the consumption of mineral fertilisers achieved in the previous decade stopped, while the consumption of pesticides has increased again in the last few years.** Following a decline in the *consumption of main macronutrients* from mineral fertilisers (nitrogen, phosphorus and potassium, i.e. NPK fertilisers) per unit of utilised agricultural area until the end of the previous decade, no major progress has been made in subsequent years amid significant annual fluctuations. The use of *pesticides*, measured in terms of the total quantity of active ingredients sold, has also been falling in the long term.<sup>1</sup> Pesticide sales, however, depend on weather conditions and the consequent outbreaks of plant diseases and pests, but since 2013 they have been rising – in 2018, they were at approximately the same level as a decade earlier. The consumption of both agricultural inputs is above the EU average, but it is difficult to measure particularly for pesticides, because it is the sum of active ingredients with different toxicity levels.

Table: Average yields of the main crops and consumption of NPK fertilisers and pesticides

		2005	2010	2012	2013	2014	2015	2016	2017	2018	2019	2020
Average yields of wheat, maize and milk, in tonnes/ha or tonnes/cow												
Wheat	Slovenia	4.7	4.8	5.4	4.4	5.2	5.1	5.2	5.0	4.4	5.2	5.8
	EU	N/A	N/A	N/A	N/A	N/A	N/A	5.2	5.7	5.2	5.8	N/A
Maize for grain	Slovenia	8.3	8.5	7.1	5.4	9.2	9.0	9.5	7.1	9.5	9.3	10.4
	EU	N/A	7.1	6.0	6.8	8.1	6.4	7.3	7.8	8.4	7.9	7.0
Milk yield	Slovenia	5.5	5.5	5.6	5.4	5.7	5.6	6.0	6.0	6.1	6.2	N/A
	EU	N/A	N/A	N/A	6.5	6.7	6.8	6.9	7.0	7.2	7.3	N/A
Fertilisers and pesticides, Slovenia, growth, 2005 = 100												
NPK fertilisers, consumption per unit of utilised agricultural area		100.0	89.3	83.1	85.1	87.0	89.6	86.4	85.1	86.4	83.7	N/A
Pesticides sales, in tonnes of active ingredients		100.0	80.2	72.9	64.9	71.4	74.0	81.8	76.9	82.9	N/A	N/A

Source: Eurostat, 2021; calculations by IMAD. Note: N/A – not available.

Figure: Milk yield, 2019



Source: Eurostat, 2021; calculations by IMAD.

<sup>1</sup> Around two thirds of pesticides are estimated to be used in agriculture. The rest is applied on non-agricultural land such as railway tracks, roads, parks and other green areas, and golf courses and other sports fields.

Intensity of tree felling

4.11

In 2014–2019, the intensity of tree felling increased as a result of sanitary felling after major natural disasters. The severe tree damage caused by the glaze ice in 2014 was, as expected, exacerbated by a rapid spread of the spruce bark beetle in subsequent years, while in 2017 and 2018 forests were additionally damaged by strong windthrow. In the six-year period following the glaze ice, approximately half more wood mass was cut per year than one year earlier. The relatively low recorded annual tree felling thus came close to the maximum felling level allowed.<sup>1</sup> *Tree felling intensity*, expressed as the ratio of annual felling to annual wood increment, rose to around 60% in 2019, thus coming somewhat closer to the goal determined in the action plan (Action Plan to Increase the Competitiveness of the Forest–Wood Chain in Slovenia by 2020) with a view to ensuring sustainable development (75%). However, the structure of cut wood changed significantly. Felling for tree-tending purposes, which normally accounts for the largest share, declined, while the scope of sanitary felling<sup>2</sup> increased, to around two thirds of total felling.

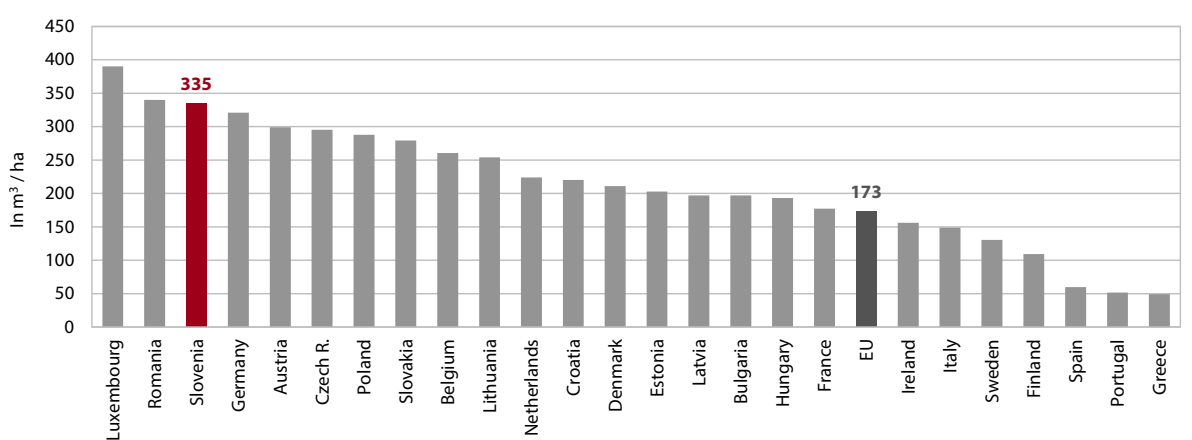
Increased removal has been reflected in increased raw wood production, but the possibilities for further development of the forest-wood chain (given the high share of land covered by forest and a high and rising wood supply) remain poorly exploited. After the glaze ice damage, *production* has increased for all wood categories, particularly pulpwood, but also sawlogs and veneer logs, i.e. the highest-quality wood, which generates the highest value added. However, *external trade in unprocessed wood* has increased more than total production. With annual imports dropping by around a tenth, total exports have increased by around 70% annually in the period after the ice damage, exports of coniferous logs alone by 120%.<sup>3</sup> The high exports of this high-quality raw material, however, represent a lost opportunity for Slovenia to increase employment and achieve higher value added in other sectors up the forest–wood chain.

Table: Forests and their economic yield, Slovenia

	2000	2005	2010	2012	2013	2014	2015	2016	2017	2018	2019
Forest area (thousand ha)	1134.2	1169.2	1185.2	1184.5	1183.4	1181.9	1182.0	1182.3	1180.3	1177.2	1176.8
Growing stock (in million m³)	262.8	300.8	331.0	337.8	342.4	346.1	348.2	350.4	352.9	355.3	356.7
Annual wood increment (in million m³)	6.9	7.6	8.1	8.4	8.5	8.6	8.6	8.7	8.7	8.8	8.8
Removals (in million m³)	2.6	3.3	3.4	3.9	3.9	6.3	6.0	6.1	5.0	6.1	5.3
Roundwood production (in million m³)	2.3	2.7	2.9	3.4	3.5	5.3	5.2	5.5	4.6	4.1	4.7
Intensity of tree felling	38.0	43.0	41.6	46.4	46.2	74.0	70.1	70.4	57.3	68.9	59.9

Source: ZGS, 2020; SURS, 2021; calculations by IMAD.  
Note: 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 the period after the glaze ice, the yield was 83% to 92% of felled wood.

Figure: Growing stock per unit of forest area, 2020



Source: Eurostat, 2021; calculations by IMAD.  
Note: Data for Belgium and Portugal are for 2015; data for Cyprus and Malta are not available.

<sup>1</sup> 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 irrespective of ownership. In recent years, the recorded tree felling has accounted for nine tenths of that allowed under forest management plans.  
<sup>2</sup> Sanitary felling is the felling of sick, damaged or drying trees that have been damaged by biotic (pest and disease outbreaks, wildlife) or abiotic disturbances (wind, snow, glaze ice, drought, landslide, polluted air) to such an extent that there they have no silvicultural future (SiDG, 2021).  
<sup>3</sup> Exports of coniferous logs constitute the bulk of total exports of logs. For exports of non-coniferous logs, separate data for the period after 2016 are not available; these exports are included in the total exports of non-coniferous industrial roundwood, which has increased by 30% annually in this period.

Quality of watercourses

4.12

The quality of Slovenian watercourses is high, but the further improvement as determined in the SDS came to a halt after 2016. River quality, as measured by biochemical oxygen demand, which was close to the EU average at the beginning of the previous decade, has improved significantly since 2005. For several years it has been among the highest among the 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 are below the EU average.<sup>1</sup> 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 wastewaters in previous years.

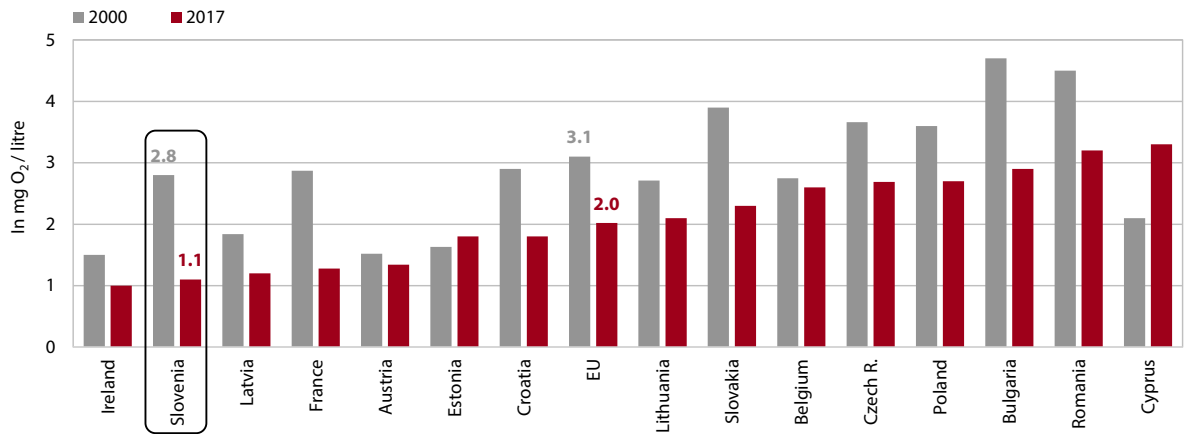
Four fifths of abstracted water is from surface water sources and used primarily in industry; around one fifth of wastewater is treated before discharge. In Slovenia, which is fairly rich in water resources owing to its diverse natural conditions and has a relatively high amount of freshwater resources available per capita, 944 million m<sup>3</sup> of water in total was *abstracted* in 2019, 4% less than five years before. Most of it was abstracted from surface waters and used in industry. Only one fifth was abstracted from groundwater resources and intended primarily for the public water supply system. A total of 997 million m<sup>3</sup> of wastewater was *discharged* into the environment.<sup>2</sup> After 2015, the share of water treated before discharge doubled, to around one fifth. The remaining majority of waste water remained untreated, but it was mostly polluted only by heat, mainly as it was used as a coolant in hydropower plants.

Table: Water quality indicators

	2000	2005	2008	2010	2012	2013	2014	2015	2016	2017	2018	2019	SDS 2030 target
Biochemical oxygen demand in rivers*, in mg O <sub>2</sub> /l													
Slovenia	2.8	2.5	1.1	1.3	1.5	1.2	1.2	1.1	1.0	1.1	1.1	1.1	< 1
EU	3.1	2.4	2.2	2.1	2.1	2.0	1.9	2.0	1.9	2.0	N/A	N/A	
Nitrates in groundwater, in mg NO <sub>3</sub> /l													
Slovenia	N/A	15.2	13.0	11.8	11.3	11.7	11.7	11.8	11.4	12.1	11.9	11.6	
EU	19.6	19.7	19.7	19.7	19.2	19.7	19.6	19.8	19.6	19.1	N/A	N/A	
Phosphates in rivers, in mg PO <sub>4</sub> /l													
Slovenia	0.06	0.05	0.03	0.04	0.06	0.05	0.04	0.06	0.04	0.04	0.03	0.04	
EU	0.16	0.12	0.12	0.10	0.10	0.09	0.09	0.09	0.09	0.09	N/A	N/A	

Source: Eurostat, 2021 and SURS, 2021.  
Notes: \* The values for Slovenia according to SURS are higher than according to Eurostat due to a greater number of sampling places. N/A – not available.

Figure: Biochemical oxygen demand in rivers



Source: Eurostat, 2021; SURS, 2021.  
Note: Data for other EU Member States not available.

<sup>1</sup> 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<sub>2</sub>/l, while moderately and heavily polluted rivers show values ranging from 2 to 8 mg O<sub>2</sub> 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<sub>3</sub>/l. The high levels of phosphates in rivers can cause eutrophication, i.e. excessive growth of microphytes and algae, which deteriorates water quality (Eurostat, 2021).

<sup>2</sup> Wastewater is not only water that is released back to the environment after use, but also runoff rainwater that flows back to the environment through the sewerage system or is captured and then discharged directly to rivers, streams or soil.

Ambient air quality

4.13

**Poor quality of ambient air in Slovenia is highly related to excessive particulate matter (PM) pollution,<sup>1</sup> which is mainly a consequence of inappropriate burning of wood biomass and poor ventilation of some areas.** The majority of particle (PM<sub>10</sub>) pollution, around 60%, is due to emissions from *small combustion sources*, to a great extent owing to households' outdated wood biomass furnaces and the often unfavourable weather conditions in poorly ventilated basins and valleys of the continental part of Slovenia. With pronounced temperature inversions, even a relatively low emission density can cause excessive air pollution. As there are no such problems in the warm season, data on the average annual values show a better picture than data on the number of days with exceeded the daily limit value, which are typical of the cold months of the year. Another major source of particle emissions is *energy use in industrial processes and fuel combustion in industry*, followed by road transport emissions. In recent years, the general average exposure of the urban population to particle

pollution has been declining, partly as a result of milder winters, but exposure to the smallest particles is still significantly higher than the EU average.

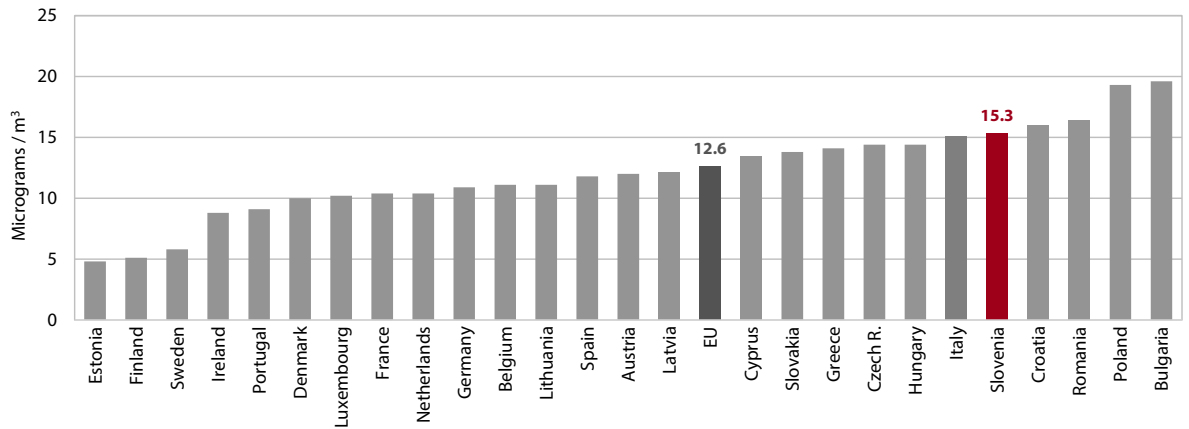
**Another problem is the locally high presence of ground-level ozone.** As the formation of ozone requires sufficient sunlight, the excessive concentrations of ozone – in contrast to particulate matter – mainly occur during the summer months. They are primarily the result of road traffic, the main source of ground-level ozone precursors. 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, 2021b). As ozone concentrations are strongly dependent on weather conditions, the multi-annual series of data does not indicate a clear trend, but according to the most recent data, the exposure of the urban population to ozone was higher than the EU average.

Table: Urban population exposure to particulate matter and ozone, in micrograms per m<sup>3</sup>

	2000	2005	2008	2010	2012	2013	2014	2015	2016	2017	2018	2019
<b>PM<sub>10</sub></b>												
Slovenia	N/A	36.8	29.1	28.2	25.4	24.9	22.5	27.7	25.6	24.8	24.1	20.4
EU	32.2	29.4	27.4	27.2	25.9	25.1	23.3	24.1	22.0	22.6	22.5	20.5
<b>PM<sub>2.5</sub></b>												
Slovenia	N/A	N/A	23.9	21.8	20.4	20.1	17.5	21.6	21.6	19.7	18.3	15.3
EU	14.5	16.2	18.1	18.9	17.5	16.4	15.7	15.8	14.6	14.9	14.5	12.6
<b>Ozone, Slovenia</b>												
No. of days with exceeded values		46	33	24	40	41	31	28	24	32	26	31

Source: Eurostat 2021 and ARSO, 2021.  
Note: Average annual particulate matter concentrations in urban background locations. The annual concentration limit recommended by the World Health Organization 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 set for the protection of human health 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); data for measuring points in urban backgrounds are shown. N/A – data not available.

Figure: Urban population exposure to PM<sub>2.5</sub>, 2019



Source: Eurostat, 2021. Note: data for Malta not available.

<sup>1</sup> The most frequently measured particles are those sized 10 µm or less (PM10) and 2.5 µm or less (PM2.5). These are the most damaging for health, causing increased morbidity and mortality due to respiratory and cardiovascular diseases.

## Functionally derelict areas

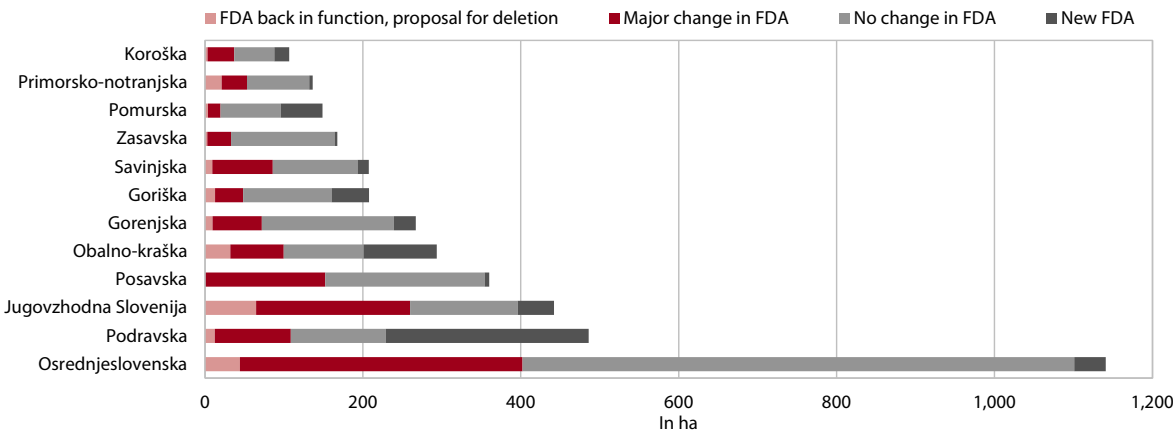
## 4.14

**Since 2017, the total functionally derelict area (FDA) has increased, but a revival of some areas has also been observed.** Overall 1,167 FDAs (with a total area of 3,747 ha) were identified in the survey,<sup>1</sup> their average size amounting to 3.2 ha. Between the surveys in 2017 and 2020, the number of FDAs increased by 86 and their total area by 324 ha, which means an increase of 8% and 9%, respectively. The majority are sites degraded by former industrial and commercial activities. These are also relatively large (around 5 ha). The changes after 2017 include newly created FDAs (mostly FDAs of infrastructures and service activities) and revived areas deleted from FDA records. The majority of the latter were FDAs degraded by industrial and craft activities.

**In the analysed period of 2017–2020, 8% of FDAs were regenerated successfully; however, as a consequence of the COVID-19 epidemic, new ones are expected to be created in the areas of more affected activities.** The following developments were identified by the survey: (i) some FDAs experienced no changes, (ii) some experienced major changes, (iii) new FDAs were created, (iv) some FDAs were back in operation. On more than half of FDAs, *no changes* occurred in the time between the surveys, mainly because of ownership problems, lack of owners' interest for change, financial problems or the refusal to locate an unsuitable project to the site. The number of such FDAs was the largest in the Primorsko-notranjska and

the smallest in the Obalno-kraška region. *Major changes* (on around a quarter of FDAs) occurred for two reasons – a beginning of regeneration processes and a revival of some FDAs, particularly on abandoned construction sites and some areas of industrial and service activities. Elsewhere, major changes meant further degradation or change in ownership and development plans, usually as a result of stranded investments, lengthy bankruptcy proceedings or illegal land use changes. In the structure of changes, the most changes in FDAs were in the Posavska and the least in the Pomurska region. Overall, 193 *new FDAs*<sup>2</sup> were identified after 2017 (around 15% of all). They were mostly FDAs of infrastructure, service activities and transitional use. The number of new FDAs was the largest in the Obalno-kraška and the smallest in the Primorsko-notranjska and Zasavska regions. Around 8% of FDAs were *rehabilitated successfully* and a new function of the area was established (they were mostly FDAs of former industrial activities). The number of successful regenerations was the largest in the Savinjska and Podravska regions (more than a tenth of all). However, in activities related to the revitalisation and establishment of new activities in functionally derelict areas, which were successfully underway before the COVID-19 epidemic, changes can already be seen. In the areas of the more affected sectors (e.g. services, tourism and recreation), we expect the abandonment of activity; where legal and financial conditions allow, the return of degraded areas to operation will accelerate.

**Figure: Structure of changes on functionally degraded areas by region, 2017–2020, in %**



Source: Lampič, 2020.

<sup>1</sup> September 2020 (Lampič, 2020).

<sup>2</sup> Some were identified additionally, as they were not recorded in the first survey.




## 5 A high level of cooperation, competence and governance efficiency



### Efficient governance and high-quality public services

- 5.1 Trust in institutions 
- 5.2 Executive capacity 

### A trustworthy legal system

- 5.3 The Rule of Law Index 
- 5.4 The expected time needed to resolve litigious civil and commercial cases 
- 5.5 The Corruption Perception Index

### A safe and globally responsible Slovenia

- 5.6 The Global Peace Index 
- 5.7 Share of households reporting problems with crime, vandalism or violence in the local area 
- 5.8 Expenditure on official development assistance



Trust in institutions

5.1

**After several years of improvement, trust in most institutions decreased in 2020.**<sup>1</sup> It was the highest and above the EU average in 2006, but has dropped significantly since then. Trust in most institutions was the lowest at the end of the global financial crisis, while it improved in 2013–2019. Trust in political parties increased slightly only in 2017. Compared to the previous year, trust in the government, parliament and political parties decreased in 2020, which can be attributed to the deterioration of macroeconomic indicators due to the spread of the COVID-19 epidemic and, consequently, to the increased dissatisfaction of respondents with the economic and general situation in Slovenia.<sup>2</sup> Satisfaction with democracy also declined. In Slovenia, the share of those who believe that the restrictions on human rights and freedoms introduced to contain the epidemic were unjustified was

among the highest in the EU (30%).<sup>3</sup> However, trust in local authorities has increased and this is still the institution people trust the most, while political parties are the least trusted institution. Trust in all institutions remained below the EU average in 2020 as well.

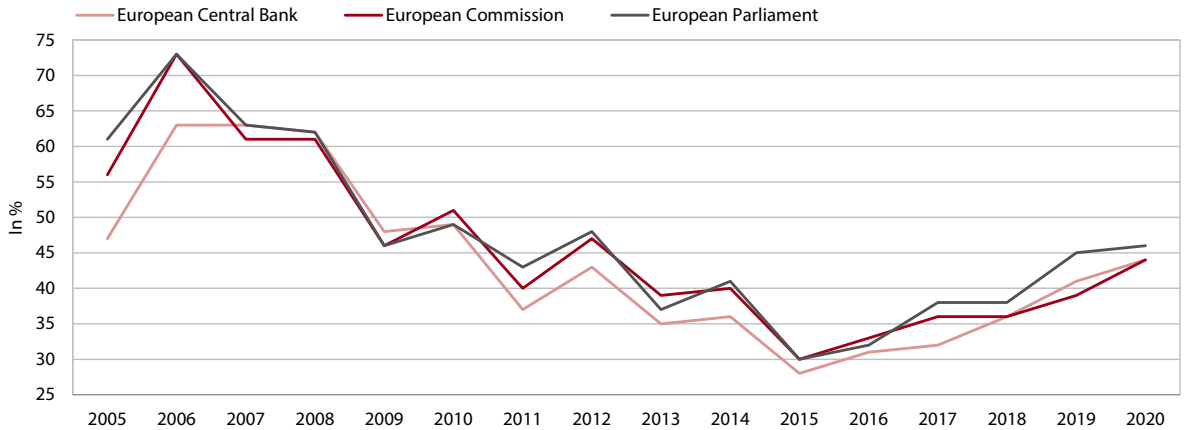
**Trust in the EU and its institutions has increased since 2015.** It was the highest in 2006 and the lowest in 2015, and has been rising again since then. In 2020, trust in the EU increased slightly compared to the previous year, as did trust in European institutions. In Slovenia, 47% of respondents trusted the EU, which is more than the EU average; 46% of respondents trusted the European Parliament and slightly fewer trusted the European Commission and the European Central Bank (44%), with all these shares also being around the EU average.

Table: Trust in institutions, in %

		2006	2008	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	SDS 2030 target
Parliament	Slovenia	42	34	23	10	12	6	9	11	14	17	22	26	22	At least half of the population trust public institutions (the average of the last three years)
	EU	33	34	31	27	28	25	30	28	32	35	35	36	36	
Government	Slovenia	43	36	27	12	15	10	13	16	17	17	23	31	25	
	EU	30	34	29	24	27	23	29	27	31	36	35	35	40	
Local authorities	Slovenia	N/A	39	39	36	34	29	31	27	38	43	40	46	50	
	EU	N/A	50	47	45	43	44	43	42	47	51	54	54	57	
Political parties	Slovenia	20	17	11	7	9	6	6	6	6	8	10	14	12	
	EU	17	20	18	14	15	14	14	15	16	18	18	20	23	
EU	Slovenia	70	60	47	38	39	37	40	30	37	38	37	46	47	
	EU	45	47	42	34	33	31	37	32	36	41	42	45	43	

Source: Eurobarometer, 2020a and 2020c. Note: The figures for individual years are the latest available data for that year (autumn measurements, 2020: summer measurements). For the EU, the figures for 2006 are for the EU-25, the figures from 2008 to 2012 are for the EU-27, the figures from 2013 to 2018 are for the EU-28, and the figures for 2019 and 2020 are for the EU-27; N/A – data not available.

Figure: Trust in EU institutions, Slovenia



Source: Eurobarometer, 2020a and 2020c.  
Note: The figures for individual years are the latest available data for that year (autumn measurements, 2020: summer measurements).

<sup>1</sup> 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”.  
<sup>2</sup> The share of those assessing the economic and employment situation in the country as bad also increased. There has also been a sharp rise in the share of those who asses that the economic and employment situation, as well as the general situation in the country, will deteriorate over the next twelve months.  
<sup>3</sup> It was higher only in Romania (38%) and Bulgaria (37%).

Executive capacity

5.2

**The executive capacity indicator, which measures the strategic governance of public institutions, is gradually improving in Slovenia, but remains low compared to other EU Member States.** The executive capacity indicator is a sustainable governance indicator 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.<sup>1</sup> Since 2017, the indicator value and Slovenia's rank among the EU Member States have improved, but Slovenia continues to lag significantly behind the EU average in all indicator dimensions.

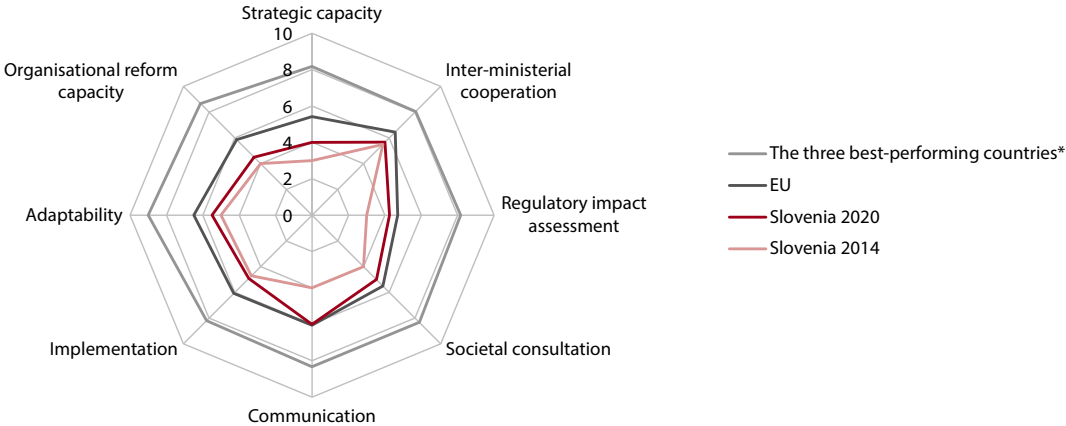
**A low executive capacity score points to the relatively low values of the government and institutional performance indicators.** In the SGI survey (Bertelsmann, 2020)<sup>2</sup>, the main weaknesses identified were in effective strategic planning and organisational reforms, where only limited progress has been made in recent years. The implementation of policy measures at various levels of government (both central and local) is also assessed as significantly worse than in other EU Member States. One of the issues is political interference in recruiting in the state administration, even at expert levels. Despite the progress made over the past year, Slovenia also lags behind other countries in producing a comprehensive assessment of the impact of proposed regulations (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	SDS 2030 target
Slovenia*	4.46	4.64	4.81	4.77	4.81	4.91	4.97	EU average in 2030
EU	6.02	6.04	6.04	6.04	6.05	5.95	5.94	

Source: Bertelsmann, 2020; 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.

**Figure: Executive capacity indicator by dimension, 2020**



Source: Bertelsmann, 2020; calculations by UMAR.  
Note: The top three countries are Sweden, Finland and Denmark.  
A higher score is better, with the highest score being 10.

<sup>1</sup> The main limitation of sustainable governance indicators (SGIs) is the small size of the sample of experts included in the survey in individual countries.  
<sup>2</sup> 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 according to data for 2019 on the Rule of Law Index; its ranking has not changed significantly since 2012.** 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, Slovenia lags behind the SDS target. Its ranking points to weaknesses in adherence to the rule of law. Slovenia scores best in the category of order and safety, where

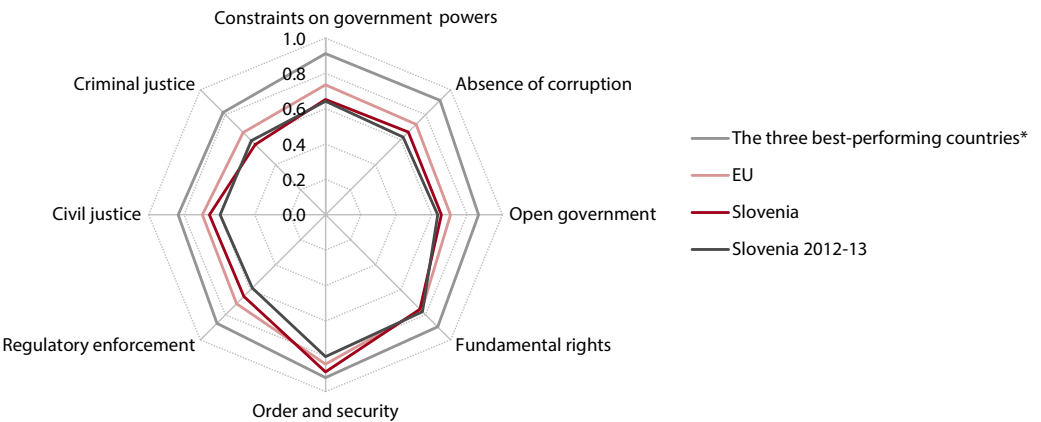
it is close to the top-ranking Scandinavian countries. The only other category where it also ranks close to the EU average is fundamental rights, where it scores well on the right to life and security and labour rights indicators. On the other hand, it lags well behind the EU average in criminal justice, with indicators in this area reflecting mistrust in the justice system, particularly its independence. The weaknesses in adherence to the rule of law are also indicated by the low indicator values in the areas of constraints on government powers (e.g. the sanctions for official misconduct indicator) and the absence of corruption (e.g. the risk of corruption in the executive branch and in the legislature).

Table: Rule of Law Index, Slovenia and the EU

	2012–13	2014	2015	2016	2017	2018	2019	SDS 2030 target
Ranking among 20 EU Member States								
Slovenia	15	15	15	15	15	14	14	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	
EU*	0.72	0.72	0.72	0.73	0.73	0.73	0.73	

Source: WJP, 2020.  
Note: Scores range from 0 to 10, with higher being better; data for the overall index are available from 2012 onwards; \* data available only for 20 EU Member States.

Figure: Rule of Law Index by sub-component, 2019



Source: WJP, 2020.  
Note: Scores range from 0 to 1, with higher being better; data are for 20 EU Member States; the three best-performing countries are Denmark, Finland and Sweden.

The expected time needed to resolve litigious civil and commercial cases

5.4

The expected time needed to resolve litigious civil and commercial cases<sup>1</sup> shortened significantly in 2008–2018, but remains longer than in the EU. In 2008–2014, Slovenia shortened the expected time needed to resolve litigious civil and commercial cases 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 slightly (to 283 days in 2018), mainly due to new competences given to the courts and the higher number of major cases. The gap with the EU has also widened, with court proceedings related to money laundering taking the longest compared to other countries.<sup>2</sup> Meanwhile, the expected length of second- and third-instance proceedings – where Slovenia performs better than the EU average – has shortened. 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 actual disposition time for major cases<sup>3</sup> has not changed significantly over the past five

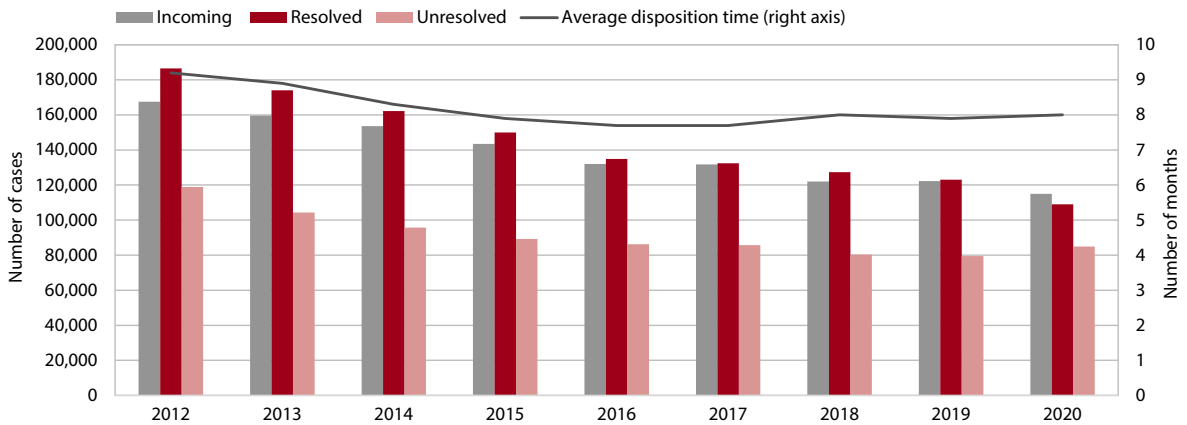
years, and in 2020 the COVID-19 epidemic had a significant impact on the functioning of the courts. Up to 2016, the time needed to resolve a major case was rapidly decreasing, largely as a consequence of a smaller incoming caseload and greater efficiency on the part of the courts, but this amount of time has not changed significantly since 2016. This can be attributed to the increasing number of more complex proceedings and new competences given to the courts by legislative amendments. The clearance rate for major cases<sup>4</sup> exceeded 100% in 2016–2019, meaning that the courts resolved more cases than came in. With the COVID-19 epidemic, the number of all cases received (including major cases) decreased, as did the number of cases resolved. The courts were unable to resolve all cases brought before them due to the operating restrictions, thus resolving 5% fewer major cases than came in (there were 0.2% fewer cases overall). The share of pending major cases in the total number of unresolved cases has thus increased (by 46.9% in 2016 and 60.9 % in 2020). The average time needed to resolve a case has shortened significantly over the past five years, to 1.1 months in 2020.

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	SDS 2030 target
Slovenia	460	315	318	301	270	277	280	292	283	200 days
EU	299	288	278	300	253	244	252	242	250	

Source: EC, 2020c.

Figure: Major cases at courts, Slovenia



Source: Supreme Court, 2021.

<sup>1</sup> 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.

<sup>2</sup> Court proceedings related to money laundering take longer only in Malta.

<sup>3</sup> 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: [http://www.mp.gov.si/si/obrazci\\_evidence\\_mnenja\\_storitve/uporabni\\_seznam\\_imeniki\\_in\\_evidence/sodna\\_statistika/](http://www.mp.gov.si/si/obrazci_evidence_mnenja_storitve/uporabni_seznam_imeniki_in_evidence/sodna_statistika/).

<sup>4</sup> The clearance rate is the ratio of the number of resolved cases to the number of incoming cases in the last 12 months, expressed as a %.

The Corruption Perception Index

5.5

The perception of corruption has not changed significantly in the last nine years and remains higher than the EU average.<sup>1</sup> The Corruption Perception Index (CPI) is based on the rate of public sector corruption as perceived by businesspeople, experts and analysts. Slovenia has made no significant progress in the corruption perception ranking since 2012, receiving the same score (60 out of the highest possible score of 100) for the third year in a row. This means that it continues to lag behind the EU average, but still ranks better than most countries that joined the EU after 2003. According to Eurobarometer (Eurobarometer 2020b), 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. The Commission for the

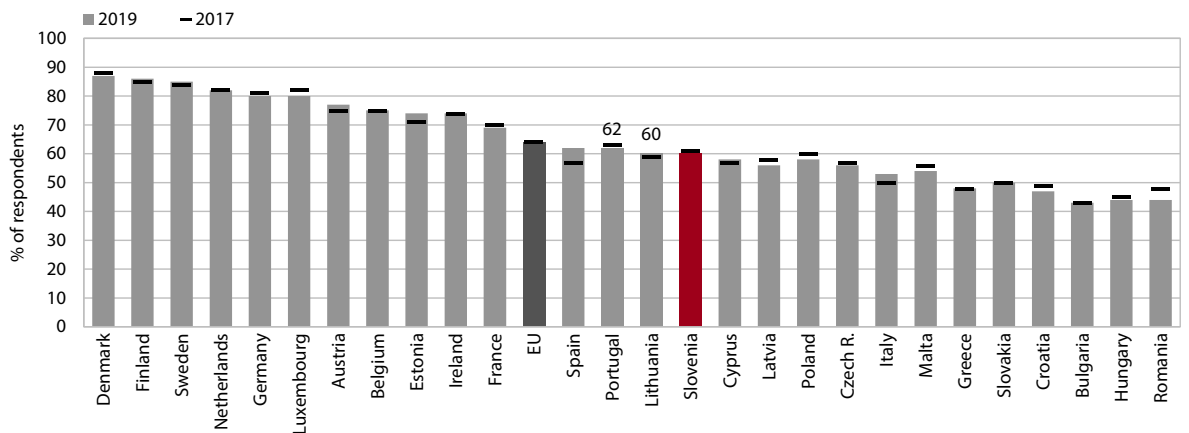
Prevention of Corruption meanwhile finds that the greatest amount of corruption in the public sector is perceived to exist in public procurement (around 15% of all incidences reported), in administrative procedures, in circumstances that represent a conflict of interest, in procedures regarding the disposal of physical assets owned by the government or municipalities, and in health care and pharmacy. The year 2020 was strongly marked by the COVID-19 epidemic and the ensuing crisis, which exposed a number of corruption risks, particularly in relation to the purchase of medical equipment. In 2020, some systemic changes were adopted in Slovenia (the adoption of an amendment to the Integrity and Prevention of Corruption Act), which are intended to provide tools enabling more efficient work of the Commission for the Prevention of Corruption and to delimit the power to prosecute criminal offences (ZIntPK-C, 2020).

Table: The Corruption Perception Index

	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Slovenia	61 (15)	67 (11)	66 (10)	64 (12)	59 (15)	61 (15)	57 (16)	58 (16)	60 (15)	61 (14)	61 (13)	60 (13)	60 (14)	60 (14)
EU	62.4	63.6	59.9	61.5	62.6	62.6	62.8	63.7	65.0	64.0	65.0	64.1	63.9	63.7

Source: Transparency International, 2021.  
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, 2021.  
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.

<sup>1</sup> Most of the sources used to compile the Corruption Perception Index are based on research and surveys from 2019 and the first half of 2020, so the impact of the health crisis on the perception of corruption has not yet been fully taken into account. Systemic changes in Slovenia could be reflected in the change in the index value next year.



The Global Peace Index

5.6

According to the Global Peace Index<sup>1</sup>, Slovenia ranked among the most peaceful countries in the world again in 2020. In 2016–2019, it was one of the ten most peaceful countries in the world, and in 2020 it ranked 11<sup>th</sup> out of 163 countries in the world and 5<sup>th</sup> among the EU Member States. While Slovenia is once again among the ten best performing countries in the area of militarisation (4<sup>th</sup>) and ranks 12<sup>th</sup> in the area of societal safety and security, it scores lower in the area of domestic and international conflict (52<sup>nd</sup>), which is mainly due to the still slightly worse assessment of relations with neighbouring countries and the intensity of organised internal conflicts. While Slovenia has made progress in the area of domestic and international conflict (up eight places) compared with the previous year, its ranking has deteriorated (by four places) especially in the area of societal safety and security. In this area, it has also scored slightly lower over the past decade with regard to the indicators of the number of internal security officers and police per 100,000 people, the level

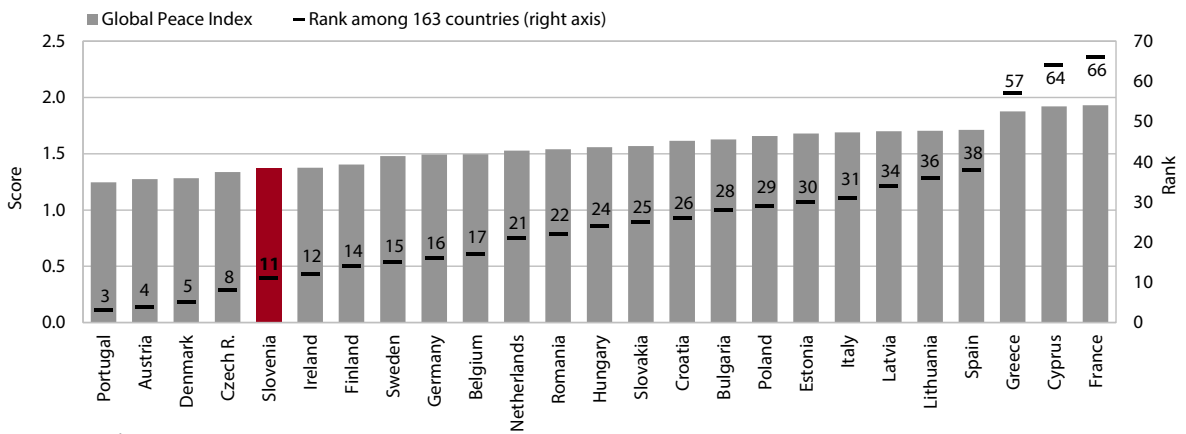
of perceived criminality in society, and the likelihood of violent demonstrations. Compared with other countries, Slovenia nevertheless ranks relatively high in these areas too, but these scores indicate certain shortcomings that do not significantly affect the assessment of peace in the country. According to the Global Peace Index for 2020, Europe remains the most peaceful region in the world and is home to six of the ten most peaceful countries in the world (four of which are EU Member States). The Middle East and North Africa remain the least peaceful regions. Iceland remains the most peaceful country in the world, and Afghanistan the least. The Global Peace Index has deteriorated over the past decade, mainly due to the intensification of conflicts in the Middle East, terrorism, rising regional tensions in Eastern Europe and Northeast Asia, migration trends, and heightened political tensions in Europe and the United States, while new tensions and uncertainties have already been arising from the COVID-19 pandemic (IEP, 2020b).

Table: Global Peace Index, Slovenia

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	SDS 2030 target  To be ranked among the top 10 countries in the world and the top 5 in the EU.
Rank among 163 countries												
Global Peace Index	7	6	10	11	14	13	9	8	10	9	11	
Score												
Global Peace Index	1.376	1.373	1.452	1.415	1.411	1.402	1.370	1.373	1.357	1.347	1.369	
Militarisation	1.2	1.2	1.4	1.4	1.4	1.4	1.3	1.2	1.3	1.2	1.2	
Societal security and safety	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.5	
Domestic and international conflict	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.4	

Source: IEP, 2020a.  
Note: Scores range from 1 to 5, with a lower score being better.

Figure: Global Peace Index 2020, EU Member States



Source: IEP, 2020b.  
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.

<sup>1</sup> 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 (7 indicators), societal safety and security (10 indicators), and ongoing domestic and international conflict (6 indicators). The calculation of the Index for 2020 includes data from 2015 to March 2020.

Share of households reporting problems with crime, vandalism or violence in the local area

5.7

The share of households<sup>1</sup> reporting problems with crime, vandalism or violence in the local area did not change in 2019 compared to the previous two years and is in line with the SDS target. It was 8% and remained below the EU average, but Slovenia's ranking among EU Member States deteriorated for the fourth year in a row.<sup>2</sup> This shows that some other European countries have been more successful in reducing crime at the local level. The incidence of crime is affected by socio-economic factors, and crime is also more common in urban environments. In 2019, Jugovzhodna Slovenija stood out on this indicator. In this region, the share of households reporting problems with crime, vandalism or violence in the local area doubled over a ten-year period. The Posavska region also recorded a high and growing share of such households. Over a ten-year period, the share of such households fell the most in the Osrednjeslovenska region (by 10 percentage points), but remained above average in 2019 (12%). 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).

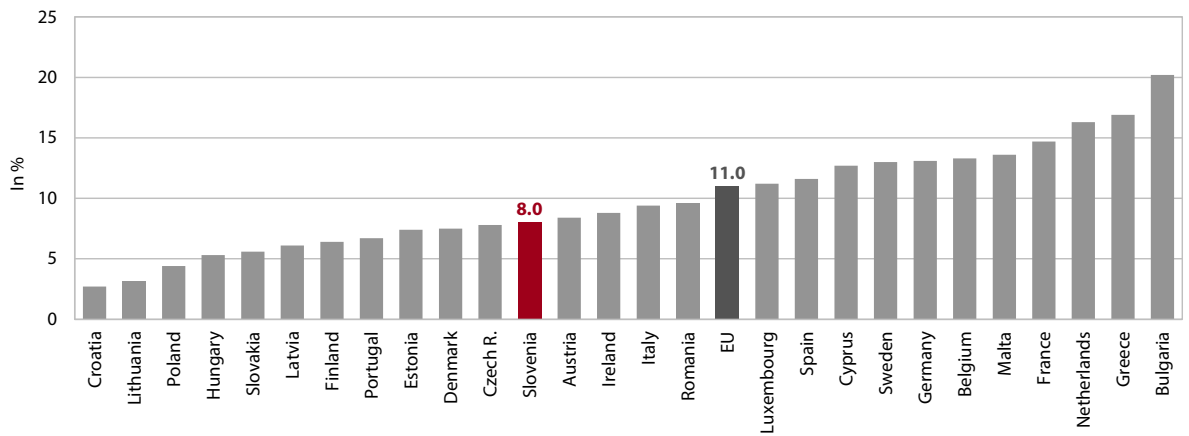
The quality of life is also affected by the feeling of being threatened in the immediate environment, but the share of individuals feeling unsafe remains low in Slovenia. In 2017, the majority of Slovenian respondents (97%) considered their immediate neighbourhood to be a secure place to live in (Eurobarometer, 2017). According to a Slovenian Public Opinion Poll conducted during the first wave of the COVID-19 epidemic, 95% of respondents in Slovenia felt safe when walking alone in their neighbourhood at night, which is slightly more than in previous years<sup>3</sup> and may also be partly due to the restrictive measures to contain the spread of the virus.

Table: Reported crime, vandalism or violence in the local area, in %

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	SDS 2030 target
Slovenia	9.3	8.6	8.1	9.1	10.1	9.2	8.5	8.0	7.9	8.0	< 10
EU	13.1	13.2	12.8	14.1	13.6	13.2	12.5	11.5	11.5	11.0	

Source: Eurostat, 2021a.

Figure: Reported crime, vandalism or violence in the local area, 2019



Source: Eurostat, 2021a.

<sup>1</sup> The sampling unit described in the Survey of Living Conditions (EU-SILC) is private households or individuals living in such households (the share of households reporting crime, violence or vandalism in the neighbourhood where they live).  
<sup>2</sup> In 2015, Slovenia ranked 7th among EU Member States, and 12th in 2019. It was ranked the highest (4th) in 2012.  
<sup>3</sup> In 2010–2018, the share of respondents who felt safe walking alone in their neighbourhood at night ranged between 92% and 94% (CJMMK, 2018).

Expenditure on official development assistance

5.8

**In 2019, expenditure on official development assistance remained significantly lower than international commitments.** Official development assistance is defined as aid provided by advanced countries in support of sustainable development in developing countries.<sup>1</sup> In 2019, Slovenia allocated EUR 77.44 million for development assistance, 9% more than in 2018, thus maintaining the share of GNI dedicated for this purpose, which remained significantly below the EU average.<sup>2</sup> Expenditure on official development assistance (0.16% 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.

**Funds for paying the tuition fees of and scholarships for citizens from partner countries studying in Slovenia, as well as assistance focused on specific projects, made the greatest contribution to the increase in funds for official development assistance**

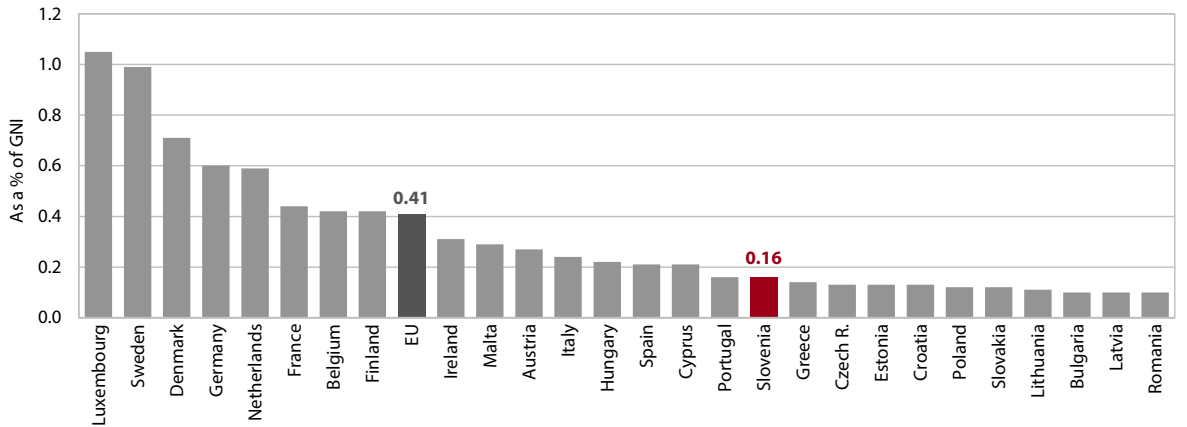
**in 2019.**<sup>3</sup> In recent years, the level of aid has been strongly influenced by migration trends, especially in relation to the situation in the Middle East, which, with the exception of 2017, is reflected in the increased costs of caring for refugees and migrants in Slovenia. These decreased slightly in 2019, as did the dedicated contributions for specific programmes of international organisations, but both types of assistance still remain relatively high in terms of funding. Development assistance is the sum of multilateral assistance (funding provided for the regular development activities of international organisations) and bilateral assistance.<sup>4</sup> In 2019, Slovenia again dedicated most of its bilateral aid<sup>5</sup> to Western Balkan countries, 68% in total, which is the same as in 2018 and more than the average over the last five years (63%). Most of this aid was allocated to quality education projects (funds for paying tuition fees and scholarships). In 2019, expenditure on multilateral assistance also increased, of which the largest share (83%) was dedicated to EU development cooperation programmes.

Table: Official development assistance as a % of GNI

	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Slovenia	0.11	0.13	0.15	0.13	0.13	0.13	0.13	0.12	0.15	0.19	0.16	0.16	0.16
EU	0.41	0.40	0.40	0.41	0.42	0.40	0.38	0.38	0.42	0.49	0.46	0.43	0.41

Source: Eurostat, 2021b. Note: The United Kingdom is one of the largest individual donors of official development assistance, and with Brexit, official development assistance decreased on average in the EU.

Figure: Official development assistance as a % of GNI in the EU Member States in 2019



Source: Eurostat, 2021b.

<sup>1</sup> In 2018, the legal and strategic framework for international development cooperation was renewed. In April 2018, Slovenia adopted a new International Development Cooperation and Humanitarian Aid of the Republic of Slovenia Act; in November, the Decree on the Implementation of the International Development Cooperation and Humanitarian Aid of the Republic of Slovenia; and in December, the Strategy of International Development Cooperation and Humanitarian Assistance of the Republic of Slovenia until the Year 2030.

<sup>2</sup> In most EU Member States, the share of GNI for official development assistance declined in 2019 or remained unchanged. Compared with other countries that joined the EU after 2002, Slovenia fell from second to fourth place, behind Malta (which has the largest share of GNI for official development assistance in this group of countries) and Cyprus and Hungary, which increased their share of GNI for official development assistance most significantly (MZZ, 2020b).

<sup>3</sup> Funds for paying tuition fees increased by more than two million euros and funds for projects by more than half a million euros. Funds for paying scholarships also increased significantly.

<sup>4</sup> For bilateral assistance, EUR 27.76 million was allocated in 2019. Bilateral assistance is the sum of disposable bilateral assistance (EUR 24.53 million) and administrative costs (EUR 3.23 million) (MZZ, 2020b).

<sup>5</sup> The priority development regions being (i) the Western Balkans (Bosnia and Herzegovina, North Macedonia, Serbia, Montenegro, Kosovo, and Albania), (ii) the European neighbourhood, and (iii) Sub-Saharan Africa.

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Abbreviations

AJPES	Agency of the Republic of Slovenia for Public Legal Records and Related Services
ARSO	Slovenian Environment Agency
ARRS	Slovenian Research Agency
AVP	Slovenian Traffic Safety Agency
BAMC	Bank Assets Management Company
BS	Bank of Slovenia
CAF	Common Assessment Framework
CAP	Common Agricultural Policy
Cedefop	European Centre for the Development of Vocational Training
CEPEJ	European Commission for the Efficiency of Justice
CER	Center for Energy Efficient Solutions
CH4	methane
CJMMK	Public Opinion and Mass Communications Research Centre
CLARIN	Slovenian national consortium in the European research infrastructure network
CMEPIUS	Centre of the Republic of Slovenia for Mobility and European Educational and Training Programmes
CO <sub>2</sub>	carbon dioxide
CPC	Commission for the Prevention of Corruption
CPI	Consumer Price Index
CPI	Professional Education Centre of the Republic of Slovenia
CŠOD	Centre for School and Outdoor Education
DARS	Motorway Company of the Republic of Slovenia
DESI	Digital Innovation Hub Slovenia
DG SANTE	The Directorate-General for Health and Food Safety
DIH	Digital Innovation Hub Slovenia
DRSI	Slovenian Infrastructure Agency
DVK	National Electoral 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
EDI	equivalised disposable income
EEAS	European External Action Service
EFB	European Fiscal Board
EFQM	European Foundation for Quality Management
EHIS	European Health Interview Survey
EII	European Innovation Index

<b>EJQI</b>	European Job Quality Index
<b>EIPA</b>	European Institute for Public Administration
<b>EMMS</b>	Uniform methodology for measuring administrative costs
<b>EMU</b>	Economic and Monetary Union
<b>EPO</b>	European Patent Office
<b>ESC</b>	Economic and Social Council
<b>ESI</b>	economic sentiment indicator
<b>ESPON</b>	European Spatial Planning Observation Network
<b>ET 2020</b>	Education and Training 2020
<b>ETS</b>	Emissions Trading System
<b>EU</b>	European Union
<b>EUA</b>	European University Association
<b>EUIPO</b>	European Union Intellectual Property Office
<b>EUR</b>	euro
<b>EUROAC</b>	The Academic Profession in Europe: Responses to Societal Challenges
<b>EUROSTAT</b>	The Statistical Office of the European Union
<b>EUSAIR</b>	European Union Strategy for the Adriatic and Ionian Region
<b>FDA</b>	functionally degraded areas
<b>FDI</b>	foreign direct investment
<b>FEANTSA</b>	European Federation of National Organisations Working with the Homeless
<b>FRA</b>	European Union Agency for Fundamental Rights
<b>FURS</b>	Financial Administration of the Republic of Slovenia
<b>GDP</b>	gross domestic product
<b>GDPR</b>	General Data Protection Regulation
<b>GEM</b>	Global Entrepreneurship Monitor
<b>GERD</b>	gross domestic expenditure on R&D
<b>GFN</b>	Global Footprint Network
<b>Gg</b>	gigagram (1000 tonnes)
<b>GHG</b>	greenhouse gases
<b>GNP</b>	gross national product
<b>GRECO</b>	The Group of States against Corruption
<b>ha</b>	hectare
<b>HBS</b>	Household Budget Survey
<b>HBSC</b>	health behaviour in school-aged children
<b>HD</b>	housing deprivation
<b>IAEs</b>	innovation-active enterprises
<b>ICT</b>	information and communication technology
<b>ICTWSS</b>	Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts
<b>IDEA</b>	International Institute for Democracy and Electoral Assistance
<b>IER</b>	Institute for Economic Research
<b>IIBA</b>	The International Institute of Business Analysis
<b>IMAD</b>	Institute of Macroeconomic Analysis and Development



IMD	Institute for Management Development
IMF	International Monetary Fund
ISCO	International Standard Classification of Occupations
ITR	implicit tax rate (on labour, capital, consumption and energy)
JSI	Jožef Stefan Institute
KIS	Agricultural Institute of Slovenia
KONS	Platform for Contemporary Investigative Art
LE	life expectancy
LFS	Labour Force Survey
LTC	long-term care
MDDSZ	Ministry of Labour, Family and Social Affairs
MF	Ministry of Finance
MGRT	Ministry of Economic Development and Technology
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
MOP	Ministry of the Environment and Spatial Planning
MP	Ministry of Justice
MRA	Master Restructuring Agreement
MTO	medium-term objective
MZI	Ministry of Infrastructure
MZZ	Ministry of Foreign Affairs
N <sub>2</sub> O	nitrous oxide
NATO	North Atlantic Treaty Organization
NECP	National Energy and Climate Plan
NIJZ	National Institute of Public Health
NKMB	Nova kreditna banka Maribor
NLB	Nova Ljubljanska banka
NLO	Nobody Left Outside
NPK fertilisers	mineral fertilisers containing nitrogen, phosphorus and potassium
NUTS classification	Nomenclature of Territorial Units for Statistics
OECD	Organisation for Economic Cooperation and Development
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
pp	percentage point
PIAAC	the OECD Programme for the International Assessment of Adult Competences
PISA	Programme for International Student Assessment

<b>PKP</b>	anti-corona package
<b>PM</b>	particulate matter
<b>PMR</b>	product market regulation
<b>PPP</b>	purchasing power parity
<b>PPS</b>	purchasing power standard
<b>R&amp;D</b>	research and development activity
<b>REER ULC</b>	real effective exchange rate based on unit labour cost
<b>RES</b>	renewable energy sources
<b>RGZC</b>	Celje Regional Chamber of Commerce
<b>RH</b>	retirement home
<b>RIA</b>	Regulatory Impact Assessment
<b>RISS</b>	Research and Innovation Strategy of Slovenia
<b>ROE</b>	return on equity
<b>RRP</b>	Recovery and Resilience Plan
<b>RS</b>	Republic of Slovenia
<b>RUK</b>	Network of Centres for Research Arts and Culture
<b>RULC</b>	real unit labour costs
<b>S4</b>	Slovenia's Smart Specialisation Strategy
<b>SDS</b>	Slovenia's Development Strategy
<b>SEF</b>	the Slovene Enterprise Fund
<b>SFC</b>	Slovenian Film Centre
<b>SHA</b>	System of Health Accounts
<b>SHARE</b>	Survey of Health, Ageing and Retirement in Europe
<b>SHD</b>	severe housing deprivation
<b>SIAE</b>	Slovenian Institute for Adult Education
<b>SID</b>	Slovenian Export Corporation
<b>SIDG</b>	Slovenski državni gozdovi d. o. o., the national forest management company
<b>SILC</b>	Survey on income and living conditions
<b>SIO</b>	innovative environment entities
<b>SI-PASS</b>	single point for verifying the identity of various entities (citizens, business entities, public officials) and the electronic signature of applications and other documents
<b>SIPO</b>	Slovenian Intellectual Property Office
<b>SKD</b>	Standard Classification of Activities
<b>SMARS</b>	Surveying and Mapping Authority of the Republic of Slovenia
<b>SMEs</b>	small and medium-sized enterprises
<b>SPIRIT</b>	Public Agency for Entrepreneurship, Internationalisation, Foreign Investments and Technology
<b>SPOT</b>	the Slovenian Business Point
<b>SRIPs</b>	Strategic Research and Innovation Partnerships
<b>SSH</b>	Slovenian Sovereign Holding
<b>SVRK</b>	Government Office for Development and European Cohesion Policy
<b>SURS</b>	Statistical Office of the Republic of Slovenia
<b>ŠOS</b>	Slovenian Students' Union

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-kilometres
UAA	utilised agricultural area
UKC	University Medical Centre
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organisation
URSZR	Administration of the Republic of Slovenia for Civil Protection and Relief
USD	US Dollar
UTŽ	Slovenian Third Age University
VAT	value added tax
WEF	World Economic Forum
WIPO	World Intellectual Property Organization
ZPIZ	Pension and Disability Insurance Institute of Slovenia
ZRSZ	Employment Service of Slovenia
ZRSŠ	National Education Institute of Slovenia
ZSSS	Association of Free Trade Unions of Slovenia
ZZZS	Health Insurance Institute of Slovenia

**Abbreviations of the Standard Classification of Activities (SKD):** **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, and **T** – Activities of households.

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