

KEY POLICY DEVELOPMENTS IN EDUCATION, TRAINING AND EMPLOYMENT – SERBIA 2023

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EXECUTIVE SUMMARY

The Serbian parliament elected a new government in October 2022 after the elections held on 3 April 2022. The Ministry of Education, Science, and Technological Development (Serbia) is divided into two ministries: the Ministry of Education and the Ministry of Innovation and Technological Development of the Republic of Serbia.

After a substantial slowdown in 2022, Serbia's economic reform programme (ERP) forecasts that economic growth will gradually accelerate in 2023-2025. Impacted by the economic fallout of the Russian war of aggression against Ukraine, in particular on inflation through energy and food prices, real GDP growth slowed to 2.3 % in 2022, with private consumption and stock building as the main growth drivers. The programme projects that economic growth will remain moderate at 2.5 % in 2023 and gradually pick up to 3.5 % in 2024 and 4.0 % in 2025, thereby broadly returning to the pre-pandemic growth rates.¹

The Draft Programme of Economic Reforms 2023-2025 provides for a total of 22 reforms. The programme's structural reforms are aimed at removing obstacles to economic growth and development in the next 3-year period. Public finance management, green transition, digital transformation, business environment and reduction of the grey economy, research, development, and innovation are the priorities of the programme, followed by reforms in the field of economic integration, energy market, transport market, agriculture, industry and services, education and skills, employment and labour market, social protection and inclusion and healthcare. Within these areas, three key challenges have been singled out: increasing employment, especially among young people, women and vulnerable groups and social protection against poverty; creating a business environment more favourable for investments; and greening the energy sector and fully opening the energy market. To ensure the widest possible consensus in the selection and creation of priority structural reforms during the process of drafting the document, consultations with civil society organisations are foreseen and planned in a separate annex to the ERP 2023-2025 document.

In the context of EU integration, coherence with the EU goals and policy dialogue processes, Serbia, as of 2023, has opened 22 out of 35 negotiating chapters, the last four of which were opened in December 2021 as part of the cluster on the green agenda and sustainable connectivity. Serbia has closed two chapters: Chapter 25 on Science and Research and Chapter 26 on Education and Culture.

Serbia has participated in the EU Research and Innovation programmes since 2007. Since then, Serbia has made significant progress in national research and innovation policies. It is among the most successful countries in the region in Horizon 2020. Areas of success in Horizon 2020 include ICT and agricultural research, as well as scientific cooperation in energy. National efforts in supporting innovation have become successful and are complemented by the Smart Specialisation Strategy 2020-2027. This strategy emphasises the development of skills in relevant economic sectors. One of the key pillars of the strategy is the development of required skills through reforms in education and training. The strategy defines the economic sectors that deliver high-quality and highly skilled jobs and contribute to a more significant and faster growth of companies. The strategy connects faculties, rectorships, science and technology parks and VET schools through the collaboration of science and industry.

Serbia's key strategic documents are in line with the country's EU accession ambition, which is reflected in the latest Strategy for the Development of Education by 2030 (2030 Education Strategy), encompassing vocational education and training reforms. In the reporting period 2021-2023, the Government remained committed to and made progress in a number of areas, including further developing digital skills; advancing structures in support of lifelong learning; aligning qualifications with

¹ European Commission, Overview and Country Assessment 2023 Economic Reform Programmes of Albania, Montenegro, North Macedonia, Serbia, Turkey, Bosnia and Herzegovina and Kosovo*, Institutional Paper 252, May 2023, available at https://economy-finance.ec.europa.eu/system/files/2023-05/ip252_en.pdf, https://economy-finance.ec.europa.eu/system/files/2023-05/ip252_en.pdf

labour market needs; improving school-to-work transition through work-based learning; improving skills information and establishing the structures for piloting the Youth Guarantee. The above policy areas remain high on the agenda of the Serbian Government, which is reflected in its Economic Reform Programme for the period 2022-2024, as well as 2023-2025. The most recent of the guiding documents is the Action Plan 2024-2026 on the implementation of the 2030 Education Strategy.

The Ministry of Education has launched the preparation of the 2030 Education Development Strategy Action Plan for the period 2023-2026. The adoption of the Matura exam (for secondary school graduates) has been postponed again, and June 2024 has been maintained as the tentative official rollout period. The centre for examinations has been established.

Serbia adopted the new Strategy for the Development of Education by 2030, committing itself to education and training reforms with a view to joining the EU. The quality of vocational education and training (VET) is one of the main long-term focuses of the Education Strategy 2030. Attention will be dedicated to learning processes in vocational schools and to the dual training model, in which a significant part of practical teaching is carried out with employers. Improvements in VET will be harmonised with the European Framework for Quality Assurance in VET (EQAVET). Serbia has been part of the EQAVET network since 2019 and has established the National Reference Point of Serbia for the Quality of VET. Both the Education Strategy and the Economic Reform Programme of the Serbian Government aim to set up a system to monitor and evaluate the national dual training model to ensure its quality. Significant developments in the period 2020-2023 is the work done by the Serbian Qualifications Agency (SQA) and the Council for the National Qualification Framework of Serbia (NQFS), the cooperation with relevant international bodies and the referencing of the NQFS to the European Qualifications Framework, support for the Sector Skills Councils, as well as support to developing qualification standards.

The Employment Strategy 2021-2026 defines reform steps aimed at establishing an efficient labour market in line with accelerated technological development and the prioritisation of youth employment. In the first half of 2022, the key ministries in charge, jointly and supported by ETF, launched an inclusive process for reviewing the Career Guidance and Counselling system in Serbia with the aim of further developing and adapting it. Serbia has introduced the 'Youth Guarantee' in three regions (as a pilot). The development and adoption of a plan for the implementation of this programme should be finalised by the end of 2023.

In the reporting period 2021-2023, the government made progress in the areas of further developing digital skills, lifelong learning, and qualifications in line with labour market needs, improving school-to-work transition through work-based learning, improving skills information, and piloting the Youth Guarantee. The gradual introduction of the Youth Guarantee programme in the regions of Serbia is planned for the first half of 2024, according to a review of planned activities. The Economic Reform Programme also states that, as additional support to the economy in youth employment, from March 2023, tax relief will be available through which employers who enter an employment relationship with a new employee are exempt from paying 70 % tax and 100 % salary contributions for the newly employed person. The key policy areas are included in the Serbia Youth Guarantee drafted document.

In February 2022, Serbia adopted a 'strategy for creating a stimulating environment for the development of civil society' for the period 2022-2030, referring also to the establishment of a council for civil society cooperation.

Serbia has a well-developed statistical system. The Statistical Office of the Republic of Serbia is the main producer of primary data from the labour force survey and the survey on income and living conditions (SILC). The Institute of Public Health produces detailed statistics on public health and demographic trends. The quasi-governmental Social Inclusion and Poverty Reduction Unit processes and interprets data on poverty and inequality and develops indicators to monitor social policy. The monitoring of social policy in Serbia (including methodology and results) is critically discussed in academic and civil society circles.

1. KEY POLITICAL, DEMOGRAPHIC, ECONOMIC AND SOCIAL CHARACTERISTICS

Political developments

General elections were held in Serbia on 3 April 2022, electing the president and the members of the National Assembly. Serbia's new parliament convened some four months later. The Serbian government continues to declare European integration as its strategic goal and to enhance its ability to assume the obligations of EU membership by also working on alignment with the EU *acquis* in many areas.

The EU is Serbia's leading political and economic partner. The EU support and partnership for development make Serbia one of the largest recipients of EU financial support in the Western Balkans. Given the European perspective of Serbia (and of the Western Balkans), the EU has continued to treat the region as a privileged partner by associating Western Balkan countries with the EU's mechanisms and instruments. The EU programmes and support are focused on the key areas which should facilitate Serbia's preparation for membership of the European Union.

Demographics

The Statistical Office of the Republic of Serbia (SORS) estimates the population to be at 6.7601 million in the third quarter of 2023, considering natural changes and migration data. The population growth rate continues to be negative. Also, with increasing numbers of young and skilled people leaving the country and life expectancy over the period 2002-2019 increasing on average by about 0.2 years, the average population age rose from 40.2 to 43.5 years. The proportion of people aged 15-64 was 64.4 %, and those over 65 were 21.3 % (SORS, 2022). However, due to the COVID-19 pandemic, total life expectancy fell significantly from 75.7 years in 2019 to 72.7 years in 2021. SORS implemented the Census of Population, Households and Dwellings in October 2022. The results are expected to change the population data and the projections.

Although Serbia is one of two Western Balkan Six (WB6) economies attracting migrants from neighbouring economies, migration has continued to increase since 2010, with an emigration rate of 10 % in 2020. This can be explained by an unfavourable domestic labour market, primarily due to low wages, difficulties in producing needed skills, a challenging business climate and underdeveloped social and health infrastructure (OECD, 2022), particularly when compared to the attractiveness of the labour markets in the EU. Thus, workers from across the occupational spectrum continued to emigrate. The authorities acknowledged the need to provide incentives for the return of the Serbian diaspora and to attract foreign experts by implementing its economic migration strategy for 2021-2027.

The European Training Foundation (ETF), together with the Vienna Institute for International Economic Studies (WIIW), undertook a study in 2020 concluding that Serbia's biggest export 'product' is labour, with some 14 % of Serbian natives living abroad at any given time. Private remittances from abroad increase disposable income in the country by more than 8 %. Labour migration and depopulation remain defining features of Serbia's economy and society and topics that periodically dominate the public debate, implying shifts in the population structure and, consequently, customer needs (Mihail Arandarenko, ETF, 2021).

Key economic developments

After a substantial slowdown in 2022, Serbia's economic reform programme (ERP) forecasts that economic growth will gradually accelerate in 2023-2025. Impacted by the economic fallout of the Russian war of aggression against Ukraine, in particular on inflation through energy and food prices, real GDP growth slowed to 2.3 % in 2022, with private consumption and stock building as the main growth drivers. The programme projects that economic growth will remain moderate at 2.5 % in 2023 and gradually pick up to 3.5 % in 2024 and 4.0 % in 2025, thereby broadly returning to the pre-

pandemic growth rates. Serbia's business environment is improving, with regulatory and administrative burdens easing, but significant structural challenges continue to hamper the competitiveness and growth potential of the private sector and of the economy as a whole.²

The European Commission (EC) conducted an independent analysis of Serbia's economy and identified the key structural challenges to competitiveness and inclusive growth, drawing on Serbia's Economic Reform Programme and other sources. It identified three key challenges: (i) increasing employment of young people, women and vulnerable groups and social protection to combat poverty; (ii) creating a more favourable business environment for investment; and (iii) greening Serbia's energy sector and fully opening the energy market. Serbian institutions are benefiting from the EU's long-term budget (Multiannual Financial Framework) for rolling out and implementing their reform agenda as indicated in the Serbia Economic Reform Programme for the period 2021-2023.

According to an assessment of the socioeconomic impact of the crisis (OECD, 2021), business operations were interrupted in over two-thirds of SMEs. Almost 20 % ceased their operations, while an additional 49 % lacked resources and operated at reduced capacity. However, while the pandemic exacerbated existing challenges for SMEs, such as access to finance and markets, it also opened up new opportunities. It can be noted that in 2020, 403 288 companies operated, generating 1 769 606 million dinars of added value and employing 965 461 workers. The entrepreneurial sector makes up 99.9 % of all companies, employs 65.1 % of workers, generates 66.4 % of turnover, creates 59.2 % of gross value added (GVA) and participates with 39.5 % in export and 54.7 % in import in the non-financial sector economy of Serbia. Compared to 2015, in 2020 the number of SMEs increased by 78 688 (24.2 %); the largest growth was achieved by entrepreneurs (28.1 %), and the smallest by micro-enterprises (12.5 %). The number of employees increased by 163 742 (20.4 %); the largest growth was recorded among small enterprises (29.3 %), and the smallest among micro enterprises (10.9 %). GVA increased by 46.4 % (large enterprises by 37.4 %), medium-sized (48.1 %) and microenterprises (43.8 %) recorded the highest GVA growth. Turnover increased by 22.5 % (large enterprises by 22.3 %); the largest increase in turnover was recorded by small enterprises (25.5 %) and the smallest by micro enterprises (13.4 %). Labour productivity increased by 19.9 % (large enterprises by 109 %) due to higher GDP growth than increase in employment; the highest real productivity growth was recorded by micro enterprises (29.7 %) and the smallest by small enterprises (14.1 %).³

The Serbian economy recovered well from a mild recession in 2020 (-0.9 %). In 2021, Serbia's real GDP growth rate reached 7.4 %, driven by private consumption thanks to a strong increase in salary levels and consumer loans. However, despite these positive trends, the country has shown uneven growth and managed to catch up only marginally with the average EU living standards. The gross value added by sector is as follows: agriculture 6.5 %, industry 25.3 % and services 51.5 %. The economic recovery in 2021 was broad-based, except for the agricultural sector, where output declined by 5.4 % in real terms. After a strong recovery from the pandemic, Serbia is now facing headwinds from the adverse global and regional environment, including Russia's war in Ukraine. Real GDP growth is projected to slow to about 2.1 % in 2022 (and to 2.7 % in 2023) because of weaker external demand from EU trading partners, along with higher energy prices, supply chain disruptions and the recent drought. Driven by rising food and global energy prices, headline inflation is expected at about 12 % on average in 2022. This is projected to slow in 2023 and return within the National Bank of Serbia's target band in 2024. Rising energy import costs, coupled with shortfalls in domestic electricity production and weakening external demand, are expected to widen the current account deficit to about 9 % of GDP, both in 2022 and in 2023. Despite the adverse global environment, financial sector stability has been maintained, and the exchange rate has remained stable (IMF, 2022).

² Serbia: https://economy-finance.ec.europa.eu/system/files/2023-05/ip252_en.pdf (page 193).

³ Serbia, Ministry of Economy, Sector for the Development of Small and Medium Enterprises and Entrepreneurship (2022), SME Policy Index: Western Balkans and Turkey 2022: Assessing the Implementation of the Small Business Act for Europe. *Report on Small and Medium Enterprises and Entrepreneurship for 2020*. Belgrade. <https://www.oecd-ilibrary.org/sites/e4ae95d5-en/index.html?itemId=/content/component/e4ae95d5-en>

National efforts in supporting innovation have been successful and are complemented by a Smart Specialisation Strategy (EC, Horizon 2020 key figures, 2020⁴). The Government of the Republic of Serbia adopted its Smart Specialisation Strategy for the period 2020-2027 in February 2020. This strategy emphasises the development of skills in relevant economic sectors. One of the key pillars of the strategy is the development of required skills through reforms in education and training. The strategy defines the economic sectors that deliver high-quality and highly skilled jobs that contribute to greater and faster growth of companies. The strategy connects faculties, rectorships, science and technology parks and VET schools through the collaboration of science and industry.

Key social issues

Serbia's legislative and institutional framework for upholding fundamental rights is broadly in place. Serbia has adopted new strategies for anti-discrimination and Roma inclusion, as well as action plans on gender equality and Roma inclusion. Action plans and related funding in other areas were due in July 2021 (violence against women) and April 2022 (anti-discrimination; de-institutionalisation) and are now overdue. More efforts are needed to comply with the Law on the planning system, which requires that action plans be adopted within three months of the adoption of the related strategies.

In 2020, 6.9 % of the population was living in absolute poverty (7 % in 2019). According to the latest survey on income and living conditions (SILC), the at-risk-of-poverty rate was 21.7 % in 2020 (EU-27: 17.1 %), and the at-risk-of-poverty or social exclusion rate was 29.8 % (EU-27: 21.9 %). As in previous years, there is more poverty in rural than urban areas. The at-risk-of-poverty rate shows that individuals up to 18 years of age were the most exposed to this risk (24.2 %), as well as individuals aged from 18 to 24 (23.6 %). For 2020, 46.1 % of the population self-identified as 'poor' (a slight decrease compared to 47.7 % in 2019), placing Serbia at the bottom of the list of European countries that conduct SILC surveys.

Inequality in income distribution is high at 33.3 % of the Gini⁵ coefficient according to income in 2020, which is above the EU-27 average (30.0 %). The richest 20 % of the population had an income 6.1 times higher (6.5 in 2019) than the poorest 20 % (5.24 in EU-27). Although untargeted transfers were conducted during the COVID-19 pandemic and prior to the 2022 elections, no measures were designed specifically for the protection of the most vulnerable.

According to the World Bank (2021), World Development Indicators (database)⁶, and the OECD's 'Multi-dimensional Review of the Western Balkans: Fostering social cohesion in Serbia'⁷, women's employment outcomes in Serbia do not lag significantly behind international benchmarks. However, women are still less likely than men to be engaged in paid work – with a gender employment gap of 15 percentage points (World Bank/WIIW, 2021). According to the same report, on average, men also earn about 11 % higher wages than women. The gender pay gap (in monthly average gross earnings) is wider for persons with a university degree (about 20 %) (SORS, 2018). Reducing the potential for discrimination would be an important first step. The approval – in May 2021 – of the new Law on Gender Equality has endowed Serbian law with more explicit mandates for equal remuneration for work of equal value and specifically defined and prohibited discrimination based on sex, sexual characteristics and gender (World Bank, 2019; Krstic, 2021).

Increasing the limited supply of childcare facilities and improving options for paternity leave would be important steps in creating conditions for equal labour market participation by men and women.

Public expenditure on social protection and budget transfers as a share of GDP has been gradually decreasing in recent years. It amounted to 14.8 % of GDP in 2020. Furthermore, the number of beneficiaries of poverty-targeted programmes decreased, while those of category-specific

⁴ [Serbia - Research and innovation - European Union, https://research-and-innovation.ec.europa.eu/serbia_en](https://research-and-innovation.ec.europa.eu/serbia_en)

⁵ The Gini coefficient, also known as the Gini index or Gini ratio, is a measure of statistical dispersion intended to represent the income inequality or the wealth inequality within a nation or a social group.

⁶ World Bank (2021), World Development Indicators (database), World Bank Group, Washington, DC, <https://databank.worldbank.org/source/world-development-indicators> (accessed on 24 June 2021)

⁷ <https://www.oecd-ilibrary.org/sites/e140fa87-en/index.html?itemId=/content/component/e140fa87-en>

programmes increased (0.5 % of GDP versus 1.52 %). Means-tested social assistance programmes, with strict eligibility criteria, do not sufficiently reach the poor. There are also significant regional variations in coverage, and a large share of children living in poverty are not covered by any benefit.

In September 2021, the Equality Commissioner issued a recommendation to the Ministry of Finance, requesting that persons without a residence registration or ID card should also benefit from support measures. No measures were in place to increase the coverage and adequacy of benefits for individuals and families under the Financial Social Assistance scheme (FSA) to reduce poverty.

The Law on Social Cards entered into force in March 2022. It aims to ensure fairer distribution of social assistance and reduce fraud through the establishment of a single social card register connecting various public databases and providing an overview of the social and material status of beneficiaries.

In February 2022, Serbia adopted a ‘strategy for creating a stimulating environment for the development of civil society’ for the period 2022-2030, referring also to the establishment of a council for civil society cooperation. The corresponding action plan, including specific activities and funding, has yet to be adopted to ensure effective implementation of the strategy. Further efforts are still needed to ensure systematic cooperation between the government and civil society.

The overall progress across many fields (use of digital tools in education, healthcare, and other e-government services) has been significant. However, COVID-19 revealed a divide among geographic areas (regions) as well as across urban/rural lines. Notwithstanding the achievements in the above-mentioned areas, more emphasis is needed on improving coordinated policy planning and coordination and ensuring sufficient human and financial resources for EU accession across all institutions.

2. EDUCATION AND TRAINING

2.1 Trends and challenges

Education strategy and legal framework for education

Serbia has made great progress in boosting domestic competencies over the last decades. Nearly all children participate in compulsory education. Serbia also has a very high proportion of students who go into upper-secondary vocational education and training (VET). Participation in adult learning, both formal and informal, is among the highest in the region. To sustain progress in building citizens' key competencies and unleashing their full potential, this chapter puts forward policy priorities for formal education and beyond. Children's critical foundational skills can be developed by providing better access to early childhood education and care (ECEC), especially in rural areas. While VET is the most popular education track in Serbia, it requires more equipment and better financing to leverage its full potential.

At all education levels, Serbia should further improve the quality of teaching by strengthening initial teacher education and offering more opportunities for continued professional development. Setting higher standards for entry into the profession and having clear performance and competency components for teacher compensation and career progression would also improve teaching quality. Finally, Serbia has attracted significant foreign direct investment, which can serve as a springboard for increased linkages for knowledge transfer.

In June 2021, the Government of the Republic of Serbia adopted the Strategy for the National Development of Education by 2030. This is a comprehensive strategy covering all education levels from ISCED 0 to ISCED 8 and adult education. Serbia's strategy focuses on education for sustainable development, digital education and entrepreneurial learning, building on partnerships between public and private actors. The general objectives include increasing the quality of teaching and learning, ensuring the fairness and accessibility of pre-university education and strengthening the role of educational institutions. Furthermore, the strategy aims at improving the accessibility, quality, relevance, and equity of higher education. It includes teacher education, career guidance and other horizontal aspects of the educational system. An action plan for 2021-2023 accompanies the Strategy. The initial action plan included indicators and target values, in line with the provisions of the Law on the Planning System; however, the estimate of financial resources was incomplete. The Ministry committed to developing and adopting a new action plan for the period 2023-2026, with more accurate financial estimates.

Serbia continues to participate in European frameworks (e.g., the new round of VET policy monitoring, the Osnabrück Declaration for Vocational Education and Training, the Torino process, EAFA, European Qualifications Framework, ENQA) and harmonise them with its national monitoring and reporting framework, by aligning it with the EU targets and policy exchange processes for 2030.

Serbia is committed to and has been continuously working on harmonising education system outcomes with labour market needs through the implementation of different measures. These include, notably, developing the new Qs and updating the existing ones,⁸ as well as developing the accompanying Qs-based VET educational profiles/curricula. This commitment is clearly laid out in the country's education strategy – SEDS 2030 and in each iteration of the Economic Reform Programme (ERP) ever since 2021, where further development of qualifications is recognised as one

⁸ According to Article 2 of the Law on NQFS, qualifications are formally acquired competencies. An individual acquires a qualification when the competent body determines they have achieved learning outcomes at a certain level and according to a given qualification standard, which is confirmed by a public document (diploma or certificate), while a qualification standard is defined as a document containing a description of learning goals and outcomes, as well as data used to determine qualifications level, classification and evaluation (Law on NQFS of the Republic of Serbia). Qualification standards are the basis for the development of educational programmes/curricula, including in VET. Nowadays, in Serbia, the majority of new and refreshed Qs pertain to VET qualifications, which are driven by the need to align VET curricula with the labour market skills demand.

of the country's priorities. Innovation of QSs was intensified after the adoption of the 2017 Law on Dual Education and the 2018 Law on the NQFS. The enrolment of students in educational profiles based on the qualification standards is constantly growing (87 % in the 2021/22 school year), with a projection that all students entering the school year 2023/24 will be taught within the VET secondary curricula based on the modernised QSs.

The work carried out during the development and updating of the QSs is followed by the process of continuous development and revisions of the VET curricula associated with different VET profiles. The Centre for Vocational and Adult Education Training of the Institute for Improvement of Education (IIE) prepares the new or revised version of the VET curricula that is relevant to the VET profiles concerned. This process triggers a number of other steps to be followed, including the provision of training to teachers teaching the revised VET curricula, preparation of the related training materials and preparation of teaching materials in support of the VET curricula delivery in secondary VET schools.

VET in Serbia is regulated by the Law on Fundamentals of Education System, the Law on Secondary Education (LSE), the Law on Dual Education (LDE), the Law on the Dual Model of Studies in Higher Education and the Law on the NQFS. Specific measures and activities in the field of VET are focused on increasing the relevance of curricula and strengthening cooperation between the world of labour and education; improving the work of Sector Skills Councils (SSCs) in the process of developing proposals for qualification standards; improving the quality of work-based learning and students' practice in schools; developing students' key competencies; further developing formal and non-formal adult education, including CVET; and establishing 12 regional training centres for training, reskilling and upskilling in line with labour market needs in order to support the development of dual education and lifelong learning.

Serbia participates in the ETF Torino Process 2022–24 – Policy Analysis and Progress Monitoring. This is a periodical review of policies and practices in vocational education and training (VET) in support of learners and their participation in society and the labour market⁹. The Torino Process monitoring covers three major areas of commitment to lifelong learning: access to learning, quality of learning and system organisation¹⁰. Quality and reliability of monitoring evidence: Serbia has the most internationally comparable results of all countries in the Torino Process sample. These results are also less susceptible to bias. However, the country tends to self-assess the performance of its VET system somewhat more positively compared to other countries involved in this round of the Torino Process monitoring. There is good progress in the modernisation of the VET curriculum based on qualification standards in secondary education. The number of old profiles still to be updated can be considered high, and there is a need to develop a plan for their further modernisation and alignment with the labour market.

Some of the key findings that might help the countries' institutions to reflect on the follow-up policies are presented below:

Access and attractiveness: In Serbia, a significant majority of youth opt for a vocational pathway. This, however, does not necessarily signal that VET is more attractive. Rather, it is indicative of disproportionately restrictive access to general education alternatives. Conversely, access to learning for adults, especially females, is an area of weaker performance, although policies seem relatively effective in facilitating access to learning opportunities in the framework of active labour market policies. Once enrolled, learners find themselves in an environment that supports their progression, graduation, and transition between various educational pathways, whether general or vocational. There is no notable discrimination in this respect based on the gender, socio-economic background, at-risk status or country of origin of learners.

⁹ ETF, Torino Process – Policy analysis and progress monitoring 2022–24, <https://www.etf.europa.eu/en/what-we-do/torino-process-policy-analysis-and-progress-monitoring>

¹⁰ The Torino Process is a multiannual review of vocational education and training (VET) in countries in East and South-East Europe (including Turkey), Central Asia, and the South and East Mediterranean region, which the ETF is carrying out in partnership with countries in these regions on a regular basis since 2010. For more information see <https://www.etf.europa.eu/en/what-we-do/torino-process-policy-analysis-and-progress-monitoring>

Quality and relevance: The quality and relevance of the skills provided through VET in Serbia vary by learner group. While the system provides young learners with quality that is slightly above the average for Torino Process countries, adults seem to fare better than young learners, with a higher likelihood of possessing essential basic skills and competencies for participation in information-rich societies. National authorities report strong links between learning and work, attributed to the integration of work-based learning into curricula and efficient career guidance. However, this has not fully translated into better employability metrics, suggesting a need for refining employability support. VET programmes are quite receptive to themes concerning the green transition, but much less so regarding the digital transition. Although the VET system generally provides consistent quality and relevance across age and gender, disadvantaged youth and migrants seem to receive a comparatively lower-quality education, indicating potential areas for improvement.

Excellence and innovation: System performance in promoting excellence and innovation varies between policy areas and priorities. Although the commitment to excellence in pedagogy and teacher development is more or less on par with the international average, it is less clear to what extent the best practices are reaching all learners. Furthermore, although there is dedication to supporting social inclusion and equity, a discrepancy remains between policy intentions and the actual benefits received by learners. As to innovation, VET providers and decision-makers show a keen openness to innovation, particularly in support of better access to learning for youth and adults. However, there are challenges in integrating these innovations into everyday operations in VET. This underscores the need for a cohesive strategy to ensure innovative practices lead to consistent, system-wide advantages for all learners.

System management and organisation: Serbia has more internationally comparable data than other countries, but there is room to strengthen the capacity for the use of that data. In the same vein, the VET system in Serbia has a broad set of quality assurance and accountability measures. However, the effectiveness of these measures for all the individuals and institutions involved in VET needs closer examination. The national authorities report that the private sector and other stakeholders in Serbia are actively involved in VET consultations and decision-making processes. There is also a strong emphasis on placing qualified staff in leadership positions – an area where many countries in the Torino Process report challenges, especially in maintaining a high standard of professionalism among school managers. While Serbia shows commitment to the adequate provision of staff and to financial investments in VET, enhancing the material base for VET providers is an area for consideration, indicating opportunities for more targeted fund allocation.

The development of qualification standards is continuing in line with the national Methodology for Qualification Standard Development at all levels (including higher education qualifications). The updating process is continuing on the remaining vocational qualification standards adopted by the end of 2019 as a precondition for State Matura and Final Exam implementation and to link them to the occupations determined by the ISCO08 occupational classification.

Full implementation of the Law on Dual Education was launched in the 2019/2020 school year, marking a significant step in the regulation of work-based learning in Serbia. However, the capacities of schools and companies to fulfil all the provisions of the Law on Dual Education requirements are still to be assessed. The changes to the Law on Secondary Education (2020) have limited the exposure to practical training in companies to 25 % for approx. 95 % of VET students (non-dual VET profiles).

The Government established the Office for Dual Education and Qualifications in November 2022, taking over the competence for dual education and the NQFS from the Ministry of Education.

The regulation of the accreditation of companies, the training and licensing of instructors and the creation of the Framework for Monitoring and Evaluation of the National Dual Education Model provide significant support for the implementation of dual education and assurance of the high quality of work-based learning. Within the development of the Monitoring and Evaluation Framework, the accent has been placed on the micro level of dual education that is implemented at the level of schools and companies and which was missing from the quality assurance system for all educational institutions within secondary vocational education.

Since the implementation of the previous strategy mostly failed to achieve its goals in the areas of adult education, RPL (Recognition of Prior Learning) and coverage increase, the accessibility and quality of adult education and training programmes are again among the priorities. Also, one of the priorities is the development of short-cycle study programmes at NQFS level 5 to support further harmonisation of the NQFS with European policies and facilitate the recognition of foreign qualifications. Following SED 2030, such programmes should prepare students to enter the labour market or become one of the ways to enter higher education¹¹.

To enhance skills, the Strategy on Scientific and Technological Development 2021-2030, Employment Strategy 2021-2026 and SED 2030 have been adopted; moreover, by adopting the Economic Reform Programme – ERP 2021/2023, the Serbian authorities have committed to implementing activities for the development of digital skills and support for lifelong learning; improving school-to-work transition through WBL; piloting the Youth Guarantee (YG) and improving skills information. In the chapter on Education and Skills, qualifications oriented to the needs of the labour market and the Monitoring and Evaluation Framework for Dual Education are explicitly mentioned among the reform priorities.

The main policy initiatives and reforms that have been initiated are the result of the multisector approach and are supported by international funding in addition to the national budget. There is an increase in budgeting to support quality, relevance, and efficiency of education. Serbia has committed to broader education and training reforms with a view to joining the EU.

Education expenditure

On average, Serbia allocates fewer resources to education than EU and OECD countries. Public expenditure for education as a percentage of GDP decreased from 4.3 % in 2010 to 3.8 % in 2015 and 3.6 % in 2019 (latest data available as of November 2023). The share of education in total public expenditure in 2019 was 8.6 % (latest data available).

The EU has been the largest donor in the sector in recent years, including through sector budget support. In addition to EU-funded projects, the Ministry of Education is currently managing loans provided by the World Bank (WB), European Investment Bank (EIB) and Council of Europe Development Bank (CEB) to finance education infrastructure. Coupled with investments from the general state budget and local municipalities, the total education budget exceeds the official figure of 3.3 % of GDP, according to the Ministry of Education (MoE).

The MoE is finalising the Education Plan for the period 2023-2026, which should be adopted by the inter-ministerial Education Council in January 2023. This will allow the timely planning of IPA resources to support the implementation of the Plan.

Access, participation, and early school leaving

In 2019, the gross enrolment rate reached 100 % in primary education and 94 % in secondary education. Serbia has also made progress in expanding access to pre-primary and higher education.

A network of state early childhood education and care (ECEC) institutions is provided by the local self-government units in accordance with the criteria established by the government, as specified in the Law on the Foundations of the Education System. In addition to these public institutions, there are also private ECEC institutions in Serbia. There is no legal guarantee of a place in a nursery or kindergarten until children attend the compulsory preschool preparatory programme. Attendance at such classes has been compulsory for all children since the 2006/2007 school year. It starts around one year prior to a child's enrolment in the first grade of primary school¹². In OECD (2022), it is argued that the still limited availability of ECEC facilities, especially in rural areas, hampers the acquisition of foundational skills and may affect later learning.

¹¹ [Serbia National Implementation Plans for the 2020 Council Recommendation on VET and Osnabrück Declaration: https://www.etf.europa.eu/en/news-and-events/events/osnabruck-declaration-and-recommendation-vet-follow-national-implementation](https://www.etf.europa.eu/en/news-and-events/events/osnabruck-declaration-and-recommendation-vet-follow-national-implementation)

¹² <https://eurydice.eacea.ec.europa.eu/national-education-systems/serbia/access>

While the student population continues to decrease, participation in compulsory education is now virtually universal. Serbia also has a remarkably high proportion of students (about 74 %) who go into upper secondary vocational education and training (VET), with the EU average standing at 48.7 % in 2020 (ibid). VET is the majority upper secondary programme in Serbia, serving 75 % of students in each cohort. VET in Serbia is provided through upper secondary VET schools, where students spend a total of three or four years (depending on their occupational profile). The Law on Dual Education was introduced in 2017 to add a dual VET programme to Serbia's upper secondary landscape. Before the Law on Dual Education was introduced (2017), upper secondary VET in Serbia comprised only VET schools delivering school-based VET. The Law on Dual Education was introduced in 2017 to add a dual VET programme to Serbia's upper-secondary landscape. After the introduction of the law, VET schools could deliver school-based VET under the previous law and/or dual VET under the new law, the latter regulating work-based learning¹³. More detailed information on the reform and changes can be found in the analysis by Caves, Katherine; Oswald-Egg, Maria Esther (2023): *An empirical case of education policy implementation in Serbian*¹⁴; Serbia also provides updates on the development of the system on the Eurydice website¹⁵.

Tertiary-level qualifications for people aged 30 to 34 are slowly increasing, with young tertiary graduates more likely to be over-skilled (i.e., to hold jobs requiring lower levels of formal qualifications). This figure has reached around 50 % in Serbia (ETF, 2022).

At the same time, not all individuals have the same opportunities to attend and obtain high-quality education. This especially affects persons living in rural areas and Roma communities. The lack of transport and weak learning resources – including poor teaching – are key obstacles. The early school leaving rate, which had decreased from 7.5 % in 2015 to 5.6 % in 2020, increased again to 6.3 % in 2021, but is still well below the EU average of 9.7 %.

While Serbia has the highest share, among the regional economies, of adults who participate in adult learning (4.8 % in 2021, up from 3.7 % in 2020), this remains well below the EU average level of 10.8 %, and many adults lack the skills necessary to thrive in the labour market. A large share of long-term unemployment demonstrates inadequate opportunities to upskill, re-skill or acquire new competencies based on labour market needs. Access to adult learning is particularly limited for low-skilled individuals (only 0.5 % of whom attended training) and the unemployed (4.4 % of whom attended training) (ETF, 2022c).

PISA results

According to the 2018 OECD Programme for International Student Assessment (PISA)¹⁶, there was still a large share of students in Serbia who continued to leave school without having mastered basic competencies. Notably, 15-year-old students in Serbia underperform in the areas of reading (38 %), maths (40 %) and science (38 %), although results in mathematics have improved in recent years (OECD, 2018). This signals a widening of gaps in education and inequalities. Data are not disaggregated by ethnicity (e.g., Roma) or for students with immigrant backgrounds (who make up over 6 % of the student population), while students with certain disabilities are excluded from the PISA sample. That is why no policy conclusions are drawn for these groups.

Serbia participated in PISA 2022¹⁷. The PISA 2022 results were released on 5 December 2023 and are available at [Serbia | Factsheets | OECD PISA 2022 results](#)

¹³ For more information see 'Dual education: New knowledge for the new age' by the Government of the Republic of Serbia, <https://www.srbija.gov.rs/tekst/en/129780/dual-education.php>

¹⁴ <https://www.econstor.eu/bitstream/10419/273534/1/1853208752.pdf>

¹⁵ <https://eurydice.eacea.ec.europa.eu/national-education-systems/serbia/overview>

¹⁶ 'Education GPS, OECD, 24/10/2023, 16:22:31 <http://gpseducation.oecd.org/>

¹⁷ [Serbia | Factsheets | OECD PISA 2022 results](#)

Young people not in employment, education or training (NEET)

The share of young people not in employment, education or training (NEET) remains high. School-to-work transitions remain, as in other economies of the region, more difficult than in the EU average. The share of young people not in employment, education or training (NEET) was 15.1 % in 2022 (down from 18.8 in 2021). Still in 2022, male NEETs were 13.6 %, female NEETs 16.8 %

The introduction of the Youth Guarantee aims to address these challenges but the preparatory work for the introduction of the measure is not yet finalised, and the Youth Guarantee Implementation Plan is pending adoption. Workers across all areas of employment are continuing to emigrate, and the impact of the circular migration initiative cannot yet be quantified. The low labour market participation of women remains a priority issue. In addition, the number of people at risk of poverty remains high, and the social benefits for the needy part of the population do not cover the cost of living. With Serbia's aim of aligning with the wider EU Youth Guarantee policy, addressing the NEET issue will require significant policy attention across Serbia (ETF, 2022).

2.2 Initial VET and adult learning

With over 70 % of secondary school students choosing this path, VET plays a significant role in Serbia's overall education system. It is also a sector that enjoys substantial support from international and bilateral donor organisations. While it is encouraging to see a large share of Serbian students enrol in VET programmes, many VET profiles are still outdated. Programmes are found to be marginally relevant to labour market needs due to the theoretical nature of VET curricula, with limited practical training. Many schools lack the infrastructure and resources necessary to provide students with the competencies needed to thrive in the labour market (OECD 2022, page 191). VET requires better financing and equipment to leverage its full potential. Another concern for the system is the quality of initial teacher education and offering more opportunities for their continued professional development.

Serbia's VET system lacks post-secondary and short-cycle courses at higher skill levels, which are, however, in demand by employers and individuals. People partly enrol in higher education programmes to compensate for the limited offer of higher VET.

Strategic and legal framework for initial VET and adult learning

Serbia's Strategy for the Development of Education by 2030 also covers VET. Here, as mentioned before, the emphasis is on digital skills, improving skills information, bringing qualifications in line with labour market needs, improving school-to-work transition through dual vocational training and apprenticeships, lifelong learning, and piloting the Youth Guarantee.

Not all the actions provided for in the Strategy's Action Plan for the period from 2021 to 2022 were implemented. The planned practice of graduation exams was not standardised for the planned period to introduce the state graduation exam with 12 grades. The introduction of final state graduation exams covers general and vocational education. It is expected to be implemented for the generation of students who will enrol in high school in the 2022/2023 academic year¹⁸.

After the last elections and the formation of the new government in 2022, the previous Ministry of Education, Science and Technological Development was divided into the Ministry of Education and the Ministry of Science, Technological Development and Innovation. The Ministry of Education is the key ministry in charge of VET.

The National Education Council participates in formulating the national policy and legal frameworks, as well as in adapting the general subjects and curricula of the VET curriculum. The Institute for the Improvement of Education plays a key role in drafting technical documents for VET implementation and is partially involved in the other key functions, in addition to the mobilisation of financial resources.

¹⁸ <https://eurydice.eacea.ec.europa.eu/national-education-systems/serbia/ongoing-reforms-and-policy-developments>

The Institute of Educational Quality and Evaluation contributes to defining educational standards for general education and conducts evaluations and research and development activities. Regional School Administrations monitor and evaluate schools, including VET schools, and participate in managing public-private partnerships for VET and in research & development. The Educational Research Association of Serbia brings together researchers in the field of education and training and is continually active in connecting with international organisations in the field of education and training and in promoting cooperation between researchers from Serbia and colleagues from other European countries. They regularly provide evidence to the government of Serbia to inform policymaking in the field of education¹⁹.

Social partners, including employers' national and sectoral organisations, are represented in bodies such as the VET Council. The Serbian Chamber of Commerce is highly active and participates in several processes and governance functions, at both national and regional level. In total, 12 sector skills councils were established by the end of 2021²⁰. At present, the sectoral and local aspects of VET governance have been sufficiently regulated and are functional. The 12 sector skills councils define qualification needs within each sector in secondary, vocational, higher and adult education. The sector skills councils and the Serbian Qualification Agency are supported by the European Bank for Reconstruction and Development in Serbia. The bank provides long-term financial and technical support to the Serbian Qualification Agency and sector skills councils to upgrade qualifications and competencies for the development of new qualification standards within each sector, in direct cooperation with the private sector.

VET is publicly funded but is also financed through cost-sharing schemes, including national/sectoral training funds, training tax incentives for companies and workers, and loans. Funds for education are allocated by the state based on a formula that considers the type of school, student numbers, salaries, etc. The Serbia Economic Reform Report 2022-2024 indicates that budget allocations remain below what is needed to accomplish the announced reform agenda. Local governments partly cover schools' running costs and staff development, which may mean that municipalities cannot fully cover these expenses. VET programmes tend to be more resource-intensive due to higher spending requirements on technology and learning equipment.

Qualifications, validation, and recognition

The Serbian Qualifications Agency (SQA)²¹ was established in September 2018, pursuant to Article 14(1) of the Law on the National Qualifications Framework of Serbia (NQFS). The Agency provides professional support and quality in implementing the NQFS. In the development of qualifications, a particular focus is placed on adult qualifications and the re-qualification of unemployed people. The SQA supports the work of the sector skills councils who develop qualifications or verify the quality of qualifications developed by other stakeholders. The Agency also provides up-to-date online information on career profiles and related standards and qualifications.

Foreign qualifications are recognised by the ENIC/NARIC Centre, which is housed within the Qualifications Agency. The NQFS Law distinguishes between the recognition of foreign school certificates and those from foreign higher education establishments. The Law stipulates the recognition procedures and criteria for access to further education. The foreign qualifications that obtain recognition are considered equivalent to the corresponding public certificates obtained in Serbia.

An NQFS register has been established and is available to citizens through the NQFS Portal²². It has a functional connection with the Unified Information System on Education and other databases, such as the Central Register of Compulsory Social Insurance and the National Employment Service. The

¹⁹ [Overview of laws and bylaws under the Ministry of Education, Science and Technological Development of the Republic of Serbia: \[http://www.mpn.gov.rs/dokumenta-i-propisi/zakonski-okvir/National Qualifications Framework in Serbia: <http://noks.mpn.gov.rs/en/>\]\(http://www.mpn.gov.rs/dokumenta-i-propisi/zakonski-okvir/National%20Qualifications%20Framework%20in%20Serbia\)](http://www.mpn.gov.rs/dokumenta-i-propisi/zakonski-okvir/National%20Qualifications%20Framework%20in%20Serbia)

²⁰ <http://noks.mpn.gov.rs/en/decisions-on-the-establishment-of-sector-skills-councils/>

²¹ <http://noks.mpn.gov.rs/en/about-the-agency/>

²² National Qualification Framework, [noks: <https://noks.azk.gov.rs/en.html>](https://noks.azk.gov.rs/en.html)

current register consists of several sub-registers, including a National Qualifications sub-register (which records data on qualifications, classified by level and type, in accordance with CLASSNQFS). It includes a Qualification Standard sub-register and a sub-register of Publicly Recognised Organisers of Adult Education Activities. The NQFS register will form an integral part of the Unified Information System of Education for the Republic of Serbia, which aims to facilitate the exchange of data between the sub-registers of the Ministry of Education. The bylaw on the NQFS register has been forwarded for publication in the Official Gazette Register²³.

As mentioned above, 12 sector skills councils were established between 2020 and 2022 to harmonise the supply and demand for knowledge, skills, and competencies. The EU and the European Bank for Reconstruction and Development (EBRD) joined efforts to support the sector skills councils. The first and most active sector councils belong to the ICT and agribusiness sectors, which are also those with the fastest job growth. Most of the qualifications for which the qualification standard has been developed are acquired through dual education, e.g. Electrician, Baker, Cook, Carpenter, Installer of telecommunication Networks, Metal fitting, turning, and machining Operator, Industrial Mechanic (NQFS 3), Aircraft Mechatronics Technician, Multimedia Technician, Logistics and Freight Forwarding Technician, Press Technician (NQFS 4). No specific qualification standards are being developed for dual education. The dual education/apprenticeships model of education is integrated into the educational policy as a model of curriculum implementation. It identifies the characteristics of four main forms of VET delivery in relation to the role of work-based learning and suggests ways in which countries could promote apprenticeships within the context of their educational, social, and economic frameworks.

Both the Education Strategy 2030 and Serbia's Economic Reform Programme for the period 2021-2024 list as priorities the further development of qualifications in line with labour market needs. So far, 174 qualification standards have been developed, of which 74 according to the new methodology. There are 120 educational profiles based on the qualification standard, 34 of which have been updated. The Serbian Qualifications Agency has launched the work to develop standards in higher education at the level of the sector skills councils and following the Serbian Government Education Strategy 2030. However, although envisaged strategically, the higher education sector is yet to be fully integrated with the NQF system, including the alignment of the development of qualification standards with the accreditation processes and the development of curricula in higher education.

Also, one of the priorities in SEDS 2030 is the development of short-cycle study programmes at NQFS level 5 to support further harmonisation of the NQFS with European policies and facilitate the recognition of foreign qualifications. Such programmes are to be built upon secondary education, should be practice-based, and should prepare students to enter the labour market or higher education. Validation of non-formal and informal learning (VNFIL) is an area where work has advanced in the past two years. During a pilot self-assessment, exam methodologies and instruments were designed based on learning outcomes of qualification standards. The piloting of recognition of prior learning (RPL) began in February 2021, but no significant progress was made in 2022. The first clients are receiving their certificates, but not full qualifications yet. This opportunity should be made accessible to the most vulnerable population without qualifications.

Quality and quality assurance

Improvements in VET will be harmonised with the European Framework for Quality Assurance in VET (EQAVET). Serbia has been part of the EQAVET network since 2019 and has established the National Reference Point of Serbia for the Quality of VET. Both the Education Strategy 2030 and the Economic Reform Programme 2022-2024 of the Serbian Government plan to set up a system to monitor and evaluate the national dual training model to ensure its quality.

Progress has been made in ensuring compliance with the quality assurance system in higher education. In this regard, Serbia has followed the recommendations of the European Association for

²³ [NQFS web presentation \(mpn.gov.rs\)](https://mpn.gov.rs), see [Quality assurance in higher education](#)

Quality Assurance in Higher Education (ENQA). Detailed developments within the reporting period are updated on the EURYDICE website²⁴.

Work-based learning arrangements

The Government established the Office for Dual Education and Qualifications in November 2022, taking over the competencies of dual education and the National Qualifications Framework in Serbia from the Ministry of Education.

The Law on Dual Education has been implemented since the 2019/2020 school year. At present, the national work-based learning model in VET has been further developed with a particular focus on setting up quality assurance and monitoring mechanisms. In the 2019/20 academic year there were 183 000 students enrolled in vocational upper secondary schools, 46 % of whom were female. VET students represent nearly 73 % of the total enrolment in upper secondary education. VET programmes are offered in 311 upper secondary schools; 104 schools offer dual profiles. Around 7 000 students follow one of the 37 dual profiles. 95 out of 201 profiles have recently been modernised and are based on new qualification standards²⁵.

The employment rate of VET graduates (aged 20-34) remains low at 53.6 %, significantly below the EU average of 76.8 % (2021). The introduction of final examinations in secondary education was envisaged in the 2020 strategy and 2030 strategy as a milestone initiative. However, it has been postponed to the 2022/2023 school year (for 3-year VET programmes) and to the 2023/2024 school year (for all secondary schools). There has also been a wide debate from parents on the preparations for introducing the examinations, which need to be accelerated to meet the roadmap.

The regulation of the accreditation of companies, training and licensing of instructors and creation of the Framework for Monitoring and Evaluation of the National Model of Dual Education provide significant support for the implementation of dual education and assurance of the high-quality of work-based learning. Within the development of the Framework for Monitoring and Evaluation, the focus has been placed on the micro level of dual education that is implemented at the level of schools and companies, and which was missing within the system for assuring the quality of work of all educational institutions within secondary vocational education.

The commitment to expanding the work-based learning scheme in Serbia has been strengthened. Attention has been paid to the introduction of dual education in areas such as digitised processes and knowledge acquisition in Industry 4.0. The advantages offered by dual education are licensed instructors, motivated teachers, and financial compensation as a reward for successful learning in the company. This is why the strategy of the Government of the Republic of Serbia encourages the establishment of successful companies, increasing opportunities for young people from dual education to prove that they can build a career in their country (Grujic, 2020).

The Law on the Dual Model of Studies in Higher Education (Official Gazette of the RS No 66/19) also introduces dual education in higher education. The Law responds to the demand by national and foreign companies operating in Serbia for adequate, highly educated staff with practical and applicable knowledge. The first accredited dual study programmes have been implemented since the school year 2021-2022 in various fields, such as IT, the textile industry, mechanical engineering and aviation. For an overview and updated information on the continuous developments, please refer to the link to the government's interactive website²⁶.

The various forms of WBL present challenges, particularly against the backdrop of pandemic-related health restrictions and the weak capacity of companies to engage in cooperation with schools and host young learners and workers. Widening the availability of on-the-job training and work experience is critical for the swift and sustainable integration of young graduates into employment.

²⁴ [Quality assurance in higher education | Eurydice \(europa.eu\)](https://www.eurydice.eu/).

²⁵ https://www.etf.europa.eu/sites/default/files/2020-09/wbl_factsheet_serbia_2020.pdf

²⁶ [Technological Development, available at: http://www.mpn.gov.rs/wp-content/uploads/2020/05/Nacionalni-model-dualnogobrazovanja-za-odobrenje-za-stampu1.pdf](http://www.mpn.gov.rs/wp-content/uploads/2020/05/Nacionalni-model-dualnogobrazovanja-za-odobrenje-za-stampu1.pdf).

Digital education and skills

Serbia's digital workforce makes it one of the top countries globally in the platform economy rankings, with 19 % of its young people working mostly in technology, graphics, internet design and media. Digitalisation and education reform remain the top two priorities for the Serbian government. The Serbian government sees digitalisation and education as the leading path towards turning Serbia into a knowledge-based economy with high-quality jobs. The proposed reform of education provision foresees the upgrading of the digital infrastructure for education and training, the development of the new education management information system (EMIS) and the establishment of an analytical unit for regular analyses.

On 27 February 2020, the Government adopted the Strategy for Digital Skills Development in the Republic of Serbia for the period 2020-2024. The overall objective of the strategy is to improve the digital knowledge and skills of all citizens, including members of vulnerable social groups, to enable the monitoring of the development of ICT technologies in all fields and to meet the needs of the economy and the labour market. The first action plan for the period 2021-2022 had been rolled out and will be followed by the second action plan for the period 2023-2024.

The key pillars are the following:

1. improving digital competencies in the education system (by providing the conditions for learning and acquiring such skills in the education system); upgrading curricula for the acquisition of digital competencies in pre-university education;
2. improving basic and advanced skills for all citizens, by providing the conditions for the development of different levels of digital skills by citizens; accrediting digital skills training programmes for citizens; raising citizens' awareness of the need to learn digital skills; improving digital skills for citizens at the local self-government level;
3. developing digital skills in relation to the needs of the labour market, meeting the needs of the labour market for digital skills at all levels and promoting opportunities in the ICT sector; improving cooperation between relevant institutions (public sector, private sector, civil society);
4. developing the digital skills of employees, including public administration employees, with a focus on skills that are related to the specifics of the workplace;
5. lifelong learning of ICT professionals: monitoring the needs of the economy and the ICT sector; monitoring the number of young people, especially women, educated and trained in ICT professions; increasing research capacity in the ICT field and, finally, improving the skills of ICT professionals and promoting lifelong learning.

Statistics on education and training

The Statistical Office of the Republic of Serbia (SORS) is a specialised organisation established in accordance with Article 26 of the Law on ministries (Official Gazette of the RS No 44/14, 14/15, 54/15 and 96/15).

SORS is the institutional source of data and analyses for Serbia's education and training system, labour market, etc. It shares its data and analyses with European Commission structures, the ETF and international organisations, including the UN, the International Monetary Fund, UNESCO, the World Bank, the World Health Organization, OECD, etc. For more information, see <https://www.stat.gov.rs/en-us/>.

They perform all the functions in presenting and analysing the status of the education management information system (EMIS) / VET Management Information System. The development of a Serbian Educational Management Information System (EMIS) is ongoing. The legal framework necessary for the development of EMIS and the integration of student data (by introducing the Unique Educational Number/UEN) should be further complemented with respect to other sectors (social welfare, healthcare, etc). This is relevant to monitor the employment of students after they have graduated,

and it is very important to link it with labour market statistics (employment rate, sectors, trends for the next five years). SORS data are available to a variety of target groups and for various uses.

It is necessary to further increase the transparency of EMIS development and functions, to ensure its utility. Stronger involvement of key external stakeholders, including social partners, the academic community, and civil society, should be ensured in relation to data collection, analysis, and reporting.

3. LABOUR MARKET AND EMPLOYMENT

3.1 Trends and challenges

Labour market characteristics

Before the pandemic, the accelerated economic growth (averaging 4.3 % in 2019), coupled with a shrinking population due to ageing and migration, had been inflating the activity and employment rates, while pushing down unemployment figures. The introduction of the Youth Guarantee aims to address the challenges of youth unemployment. Workers across all areas of employment are continuing to emigrate, and the impact of the circular migration initiative cannot yet be quantified. The low labour market participation of women remains a priority issue. In addition, the number of people at risk of poverty remains high, and the social benefits for the needy part of the population do not cover the cost of living.

The adverse position of women in the labour market is evidenced by a 47.9 % activity rate in 2022, well below the 63.6 % rate among male peers (SORS). There are also differences among the regions in Serbia. In the third quarter of 2023 (SORS, 2023), the activity rate of people aged 15 and over amounted to 55.5 %, with the activity rate of men and women standing at 63.6 % and 55.5 %, respectively²⁷.

Serbia can be characterised as a dual labour market, with a sizeable portion of the labour force, particularly young people, employed in insecure or outright informal, low-paying jobs that offer few career prospects and, thus, prompt people to look for better options abroad. The improvement in employment rates mentioned above was also paralleled by a rise in formal employment in recent years. However, new jobs often fall into the category described by the ILO as ‘precarious and vulnerable employment’. For example, the incidence of vulnerable employment remained the same in 2022 at 19.6 %.

Flexible forms of employment, such as service contracts, temporary and occasional employment contracts, vocational training or internship contracts, and employment contracts through student or youth cooperatives, are often misused by employers (i.e., they are used instead of standard labour contracts). As stated in the ex-post analysis of the National Employment Strategy 2011-2020²⁸, ‘legal regulations, already deficient, are interpreted too broadly and arbitrarily by employers; this practice is tolerated by state bodies and spreads to the public sector so that these forms of work are becoming more prevalent and the labour and social rights of those involved are becoming seriously violated’. The situation is further exacerbated by the absence of inspections which fail to ensure that unscrupulous employers comply with existing legislation, however potentially inadequate.

Annual employment growth remained positive in most sectors, with a particularly robust performance in the ICT sector at 11.5 % growth, the professional, scientific, and technical activities sector at 6.5 % and administrative and support services at 6.3 % (European Commission, 2022).

Overall, in 2019-2021, the total number of registered unemployed individuals remained slightly above 500 000. In 2022, there was a sharp decrease, and the total number dropped to 448 618. As a trend over the years, there are more females registered as unemployed than males. With regard to educational level, the lowest number of registered unemployed individuals during 2019-2022 are people in possession of a higher education of any level. In 2022, the highest number of unemployed individuals are those with low levels of education attainment (143 118 people), and the number has been steadily declining since 2019. The second largest group is people who have completed upper secondary education of 4 years (136 305 jobseekers in 2022).

²⁷ [See below Serbia: Statistical Annex 2023.](#)

²⁸ [Ex post analysis of the national employment strategy for the period 2011-2020.](#)

Serbia participated in 2022 in the European Skills and Jobs Survey (ESJS) conducted by the European Training Foundation in collaboration with CEDEFOP.

Based on the main skills gaps identified in the Serbia survey²⁹, ESJS data shows there is a large scope for re/upskilling, especially in digital skills training/digitalisation/social skills. While noting that Serbia performs relatively lower in certain areas, there is still a sizeable learning potential.

Remote work: An average level of post-pandemic remote work incidence (29 %) and good labour market resilience were observed in 2022. However, sizeable inequalities in post-pandemic remote work patterns still exist by educational level/occupation/economic sector (i.e., gaps between high-low educated/high-low skilled). Remote work tends to be most common among highly educated workers holding high-skilled jobs (e.g., three programmers out of four worked remotely in 2022). As not all jobs could be performed remotely, ESJS data shows a larger adverse impact for workers holding low- and medium-skilled jobs than for those in skilled occupations.

Digital upskilling: this does not seem to be systematically in place yet: only one out of nine employees (13 %) had to learn to use new digital technologies at work (WB5 lowest). Serbia is a low performer in new digital technologies introduced at work (WB5 lowest), and numbers seriously drop when it comes to learning how to use them (i.e., digital upskilling). ESJS data also show a relatively low level of digitalisation of jobs compared to EU27, this is a common pattern for all WBCs.

Skills mismatch: With one in four workers overqualified, Serbia displays a relatively high level among the surveyed countries (the EU average was 28 % in 2021); this is consistent with previous ETF findings³⁰. The skills mismatch incidence remains high overall (i.e., the jobs offered do not seem to match the over-supply of tertiary graduates) and seems to be becoming structural. The high, persistent incidence of skills mismatch seems to be recurrent in the ETF evidence (even though skills mismatch is measured differently in ESJS compared to prior ETF work based on LFS data). The ESJS numbers (2022) remain relatively high and consistent with the LFS estimates (2019), showing that about one in four workers is overqualified. ETF's prior findings show that half of those entering the labour force (youths aged 15-24) are already over-qualified (about 49 % in 2019, the highest rate in the Western Balkans), suggesting skills mismatch is likely becoming a structural issue and present in many types/forms. Prior ETF work also documented a high incidence of mismatch by field of study for women; this is a robust, statistically significant finding.

Skills gaps: Only one third of workers reported high unmet learning needs in 2022 (this is a proxy for skill gaps which could be instrumental for further uses for IPA/programming). The top three training needs are: social skills (for one third of workers), IT/digital skills, albeit relatively lower (one fourth of workers) and job-specific skills (one fifth of workers). It is necessary to go deeper and control for economic structure (e.g., SMEs typically train less/have smaller training needs).

Workplace training remains modest. Only one third of workers took part in digital skills training (WB5 lowest). A gap between training 'Intention/Need' (25 %) and 'Engagement' (34 %), could suggest the presence of obstacles (e.g., of a sectoral/institutional/personal nature). The IT training gap (Intention vs Engagement) is nine percentage points, quite large and unusual, and needs further investigation. Inequalities in (digital) training provision are sizeable; this is a major concern based on ESJS data³¹. About 40 % of skilled workers (e.g., managers/teachers/IT specialists) reported significant digital skill gaps/substantial unmet learning needs, contrasting sharply with workers holding elementary jobs/jobs with no or little digital intensity (i.e., often low-educated/low-skilled workers). Inequalities in (digital) skills training affect mainly workers holding low-skilled jobs (e.g., cleaners/food preparation) who lack awareness of the new realities in the world of work (e.g., nine in ten stated they did not need to further develop their computer/IT skills); these patterns suggest wide scope for re/upskilling.

²⁹ [Mircea Badescu \(ETF\) prepared this brief note.](#)

³⁰ [ETF \(forthcoming\), Skills mismatch determinants in the ETF partner countries. A cross-country analysis.](#)

³¹ [Inequalities in \(digital\) training provision is a major concern based on ESJS data/findings.](#)

Job insecurity is relatively low, with only one fifth of employees reporting high/moderate job insecurity due to the digital transition; for one fourth of workers, this is linked to the lack of digital skills (more details in the ETF's forthcoming paper)³².

Employment and labour market statistics

The Statistical Office of the Republic of Serbia (SORS) produces reliable labour market data through annual and quarterly labour force surveys (LFS) and makes available administrative data on registered jobseekers and vacancies. SORS has adequate capacity and procedures in place to cooperate and exchange with its European partners by providing timely data.

Until recently, SORS did not capture in its statistics various flexible forms of work, irrespective of whether they were rare (such as on-call work) or quite prominent in Serbia (such as platform work). In June 2021, SORS announced changes to the LFS methodology, aligning it with that of Eurostat. These changes are to be enforced starting in 2025. The LFS will include new questions related to so-called small jobs and jobs conducted casually (remote platform work, transport services offered through web applications, translation services, distribution of flyers, caring for children, the elderly, pets, etc.). Although these jobs fall outside the traditional concept of employment, the new methodology recognises their presence in the labour market.

Serbia participated in the European skills and jobs survey-ESJS originated by Cedefop and ETF in charge of the six ETF partner countries: Albania, Bosnia and Herzegovina, Kosovo, North Macedonia, Serbia, and Israel). This is the first skills survey conducted by ETF in its partner countries. ESJS encompasses three major EU monitoring frameworks: Skills Agenda, Digital Strategy and VET-OD. Its design incorporates the EU's growth, sustainability, and resilience ambitions, and it aspires to become a key tool for evidence-based policymaking³³.

3.2 Employment policy and institutional settings

Strategy and legal framework in the employment policy field

The Employment Strategy of the Republic of Serbia 2021-2026 was approved in August 2021. The Action Plan 2021–2023 for the Implementation of the Employment Strategy of the Republic of Serbia 2021–2026 (hereinafter: Action Plan) is a policy document adopted with the aim to operationalise and fulfil the overall goal and objectives of the Employment Strategy of the Republic of Serbia 2021–2026 (Official Gazette of RS No 18/21). The Strategy envisages the adoption of two action plans with a view to achieving its goal/objectives and implementing the planned measures. These are the Action Plan 2021–2023 and the Action Plan 2024–2026³⁴.

The strategy defines reform steps aimed at establishing an efficient labour market in line with accelerated technological developments. It aims at increasing labour demand, as well as high-quality jobs and relevant labour supply through better cooperation between the various sectors, including education, the economy, finance, social protection and local authorities. Specific measures are envisaged for the improvement of the labour market standing of women, young people, disabled persons, social aid beneficiaries, as well as the Roma population. Other vulnerable groups of unemployed people will also receive additional support with their job search to help them enter or return to the labour market.

Each year, the Serbian government drafts a National Employment Action Plan, which includes activities assigned to the National Employment Service (NES).

³² [ETF \(forthcoming\), Digitalisation and digital transition. Key findings from the European skills and jobs survey in selected ETF partner countries.](#)

³³ [More information on the survey is available here: European skills and jobs survey \(ESJS\) | CEDEFOP \(europa.eu\).](#)

³⁴ [Employment Strategy of the Republic of Serbia, 2021–2026, https://socijalnoukljucivanje.gov.rs/wp-content/uploads/2021/08/Strategija_zaposljavanja_u_Republici_Srbiji_2021-2026_engleski.pdf](https://socijalnoukljucivanje.gov.rs/wp-content/uploads/2021/08/Strategija_zaposljavanja_u_Republici_Srbiji_2021-2026_engleski.pdf)

Initiatives to boost employment

Serbia has taken steps to gradually introduce the Youth Guarantee (YG) scheme. YG is a flagship programme of the European Commission's Economic and Investment Plan 2021 to 2027 for the Western Balkan region. The YG aims at securing all young NEETs aged 15 to 29 decent quality offers of employment, traineeship, apprenticeship, or continuing education, within four months of becoming unemployed. Serbia is committed to designing and adopting a YG implementation plan and conducting pilot initiatives. Furthermore, the Serbian government has agreed to establish a Youth Guarantee Fund and has started to pilot it in some regions. The National Employment Service (NES) continued in 2022 the implementation of its labour market services and measures as per national plan for employment.

Interjob brokerage is used to connect supply and demand by matching jobseekers with employers who express the need for job brokerage. It aims to increase the number of vacancies that employers report to the job matching service and create adequate assessment of jobseekers' employability and capabilities, in order to identify the need to provide other services and active employment policy measures that are determined in the individual employment plan. Such services can be conducted both online and in presence. The access to job brokerage services recorded a strongly increasing trend from 2021 to 2022, more than doubling the number of participants and reaching 231 725 jobseekers. Both online and in-presence delivery of intermediation services were accessed by more jobseekers, mostly holding low and medium education qualifications, reflecting the overall education profile of registered jobseekers. The NES delivered almost 900 000 sessions for employment counselling and individual employment plans.

The total number of participants in professional guidance and career counselling services in 2022 was under 100 000, a lower number compared to the few previous years. The majority of the services were conducted online.

Females participate in labour market services two or three times more compared to males. By age, the difference in participation between individuals under and over 29 years of age is extremely small: in 2022, the numbers were almost the same. By educational attainment, for the past two years, numbers highlight that counselling services are being used approximately equally across all education levels (low, medium and high).

Looking at specific services, in 2022, the largest number of participants benefitted from information about opportunities for career development, both online and in presence. However, the difference between the two is very noticeable: 73 027 used online opportunities and only 6 338 offline ones. The trend has been similar for a couple of years now. Information about career development opportunities aims at preventing the wrong choice of education opportunities or occupations, strengthening the user's competence in making purposeful career decisions.

Counselling services on opportunities for career development and selection were used by around 10 000 people in 2022. Counselling has the goal of increasing competency in the choice of occupation/educational path for all interested individuals, encouraging their professional adaptation and career development. Selection refers to the psychological assessment procedure for employment selection and inclusion in APZ³⁵ measures (additional education and training programmes, training for the development of entrepreneurship). The goal is to match the candidates' professional potential with the workplace/training programme requirements.

The Serbian National Employment Service (NES) implements three larger sets of active labour market measures:

- a. Active Job Search Measures, combining short-term training to increase the ability for job searching, self-employment and labour market reintegration.
- b. Additional Education and Training, including various types of courses, professional practice and internships.

³⁵ According to the Annual National Report, APZ is the abbreviation for the Action Plan, the basic instrument for the implementation of the active employment policy.

- c. Subsidised Employment and Self-Employment; public work and incentives for employment and the development of entrepreneurship.

As regards the provision of active job search measures, in 2022, 105 497 unemployed people participated in such measures. These included training for active job search, self-efficacy training, job search clubs and job fairs, workshops for overcoming stress due to job loss and short training courses (2 days) to raise the level of information and competence for the potential development of entrepreneurial activities. With the exception of the latter measure (focused on entrepreneurship), more women than men participate in such measures, as well as jobseekers with a medium level of education. Since 2020, the number of participants has steadily but strongly increased from around 38 000 to over 100 000. Considering the overall constant decrease in the total number of unemployed people, this trend reveals better performance by the NES in delivering these activation measures to jobseekers.

Data on additional education and training shows that in 2022 the NES provided (re)training and other forms of skills development to 16 344 persons, a strong increase from 2019 when less than 10 000 jobseekers accessed these types of measures. Typology and participation levels are as follows: professional practice (3 068), internships for young people with higher education (566) and for unemployed people with secondary education (249), acquisition of practical knowledge (614) and training for the labour market (811). Training was also used at the employer's request – for the unemployed (588) and for employees (29). Other programmes include 'Functional basic education of adults', with 1 032 participants, and other types of programmes for skills development and work experience acquisition, which had higher participation, with 9 387 people in 2022.

The overall objectives of the category of LMM 'Additional education and training measures' are to (a) improve the quality of the workforce (i.e. raising the level competitiveness and employability of unemployed persons on the open labour market); (b) acquire practical knowledge and skills for work, by performing specific jobs for the employer; (c) raise the level of competence, competitiveness and employability of unemployed people by acquiring additional theoretical and practical knowledge and skills for performing tasks within the same or new profession, in accordance with the needs of the labour market and employers, as well as the determined needs of the person; (d) acquire additional knowledge and skills required for the performance of jobs and tasks with the aim of maintaining employment with the employer; (e) encourage the employment and social inclusion of hard-to-employ persons, i.e. persons without a basic education and qualifications; (f) encourage the employment of young people.

As regards the subsidised employment and self-employment measures, the total number of participants was 8 019 in 2022, out of which most were subsidies for the employment of jobseekers from difficult-to-employ groups (3 349 persons) and subsidies for self-employment (4 088 persons). A lower number of beneficiaries came from the group of jobseekers with disabilities. The National Employment Service has implemented these measures in order to encourage the employment of persons from the unemployment register, persons who are difficult to employ and, especially, persons with disabilities.

Public works is a measure aiming to support unemployed persons, including persons with disabilities, through the conclusion of contracts (public contracts) on temporary and occasional jobs. In 2022, 3 381 people benefited from this measure.

Lastly, 15 240 unemployed people participated in the development of entrepreneurship, which included either informative and advisory services in the area of entrepreneurship incentives and support for the establishment of small and medium-sized enterprises, entrepreneurship support, social entrepreneurship and cooperatives, or mentoring, specialist training and assistance to newly-established business entities and beneficiaries of the self-employment subsidy to survive and develop in the first years of business.

As regards ALMP expenditure, two main destinations of expenditures are reported for active labour market measures. The first, and much larger, is Support Programme III (Active Employment Policy). This includes: (1) programmes and measures for active employment policy; (2) programmes and

measures for professional rehabilitation and the grant for the encouragement of employment of persons with disabilities from the budget of the Republic of Serbia; (3) programmes and measures for active employment policy from local self-government funds; (4) other employment incentives; (5) support for the NES employment programme (IPA 2013); (6) other projects funded by donations.

The second expenditure relates to programmes and measures for active employment policy and includes: (1) active job search; (2) additional education and training; (3) employment subsidies; (4) public works; (5) financing for the APZ programme or measure. Both categories of expenditures have recorded increases over the period 2019-2022.

In 2022, there were 164 688 job vacancies reported to the NES – twice as many as in 2021. By economic activity, the most significant number of vacancies was reported in (i) economics, law and administration; (ii) trade, hotels & restaurants and tourism; and (iii) geodesy and civil engineering. The lowest number of vacancies was observed (i) in the fitness and sports sector, preceded by (ii) mathematics and other natural sciences, and (iii) in the social and humanistic field.

As regards the NES' performance in helping unemployed people move into employment, in 2022, 44.1 % of registered unemployed people moved from unemployment into employment. The percentage of females successfully moving to employment was slightly higher in 2021 and 2022; furthermore, the percentage of people under 30 years old is almost double (70.0 %) the percentage of people over 30 years old (37.8 %).

By level of educational attainment, the percentage of registered jobseekers/unemployed people who moved from unemployment into employment is lowest for people with low education (22.9 %) and highest for those with tertiary degrees (82.9 %).

The age and qualification structure of registered unemployment in Serbia underlines the need for tailored activation measures and employment-friendly social protection measures. Furthermore, upskilling or reskilling is necessary for first-time jobseekers and for older workers who are most exposed to skill depletion and inadequacy due to labour market and technological changes.

The Education to Employment (E2E) programme is an 8-year partnership project between the Swiss and Serbian governments. E2E brings together key stakeholders involved in youth employment from the Serbian government, the private sector and civil society and promotes their cooperation for the better positioning of youth in the labour market. The aim is to better match demand and supply through the modernisation of youth employment policies, the development of young people's competence in line with private sector demand and the promotion of work-based learning. Several Job Info centres have been opened in Serbia for young jobseekers³⁶.

Initiatives to increase the capacity of public employment services

The Ministry of Labour, Employment, Veterans and Social Affairs (MLEVSA) oversees employment policies, while the NES is its executive agency. Furthermore, private employment agencies operate on the market.

The NES is a well-established institution with a clear mandate that it executes effectively. Its monitoring system is well-developed. However, it could enhance the evaluation of its programmes, not least to adapt them to the evolving needs of the population and geographical areas.

A significant challenge ahead is the full rollout, monitoring and evaluation of the Youth Guarantee in Serbia. The ministries in charge of employment and education affairs and the NES are key institutions for delivery, and adequate staffing and budgeting should be prioritised, as well as further development of partnerships for implementation with municipalities, youth organisations, trade unions and employers' organisations.

³⁶ <https://znanjemdoposla.rs/en/post/e2e-opened-additional-three-job-info-centres-in-serbia-for-young-persons>

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SERBIA: STATISTICAL ANNEX

The Annex includes annual data from 2010, 2015, 2019, 2020, 2021 and 2022 or the last available year.

	Indicator	2010	2015	2019	2020	2021	2022	
1	Total Population (in thousands) ⁽¹⁾	7291.4	7095.4	6945.2	6899.1	6834.3	6760.1	
2	Relative size of youth population (age group 15-24 and denominator age 15-64, %) ^{(1) C}	17.7	16.4	16.2	16.0	15.7	15.4	
3	GDP growth rate (%)	0.7	1.8	4.3	-0.9	7.5	2.3	
4	Gross value added by sector (%)	Agriculture	6.6	6.7	6.0	6.3	6.3	6.8
		Industry	25.3	25.8	25.6	24.9	25.0	23.1
		Services	51.7	50.9	51.2	51.9	51.4	52.4
5	Public expenditure on education (as % of GDP)	4.3	3.8	3.6	M.D.	M.D.	M.D.	
6	Public expenditure on education (as % of total public expenditure)	10.1	8.9	8.6	M.D.	M.D.	M.D.	
7	Adult literacy (%) ^C	98.0 ⁽⁵⁾	M.D.	99.5	M.D.	M.D.	M.D.	
8	Educational attainment of total population (aged 15-74) (%)	Low ⁽²⁾	33.8	26.7	24.7	24.1	24.0 ⁽⁹⁾	23.3
		Medium ⁽³⁾	51.9	54.8	55.1	55.5	55.2 ⁽⁹⁾	55.9
		High ⁽⁴⁾	14.3	18.5	20.2	20.5	20.8 ⁽⁹⁾	20.8
9	Early leavers from education and training (aged 18-24) (%)	Total	8.3	7.5	6.6	5.6	6.3 ⁽⁹⁾	5.0
		Male	9.2	7.7	6.5	5.4	7.4 ⁽⁹⁾	5.9
		Female	7.3	7.2	6.7	5.8	5.2 ⁽⁹⁾	4.1
10	NET enrolment rates in secondary education (ISCED level 2-3) (%)	M.D.	93.8	91.6	89.9	90.2	M.D.	
11	Share of VET students in upper secondary education (ISCED level 3) (%)	76.1	75.1	73.8	73.5	73.2	M.D.	
12	Low achievement in reading, mathematics and science – PISA (%)	Reading	32.8 ⁽⁶⁾	N.A.	37.7 ⁽⁷⁾	N.A.	N.A.	N.A.
		Mathematics	40.6 ⁽⁶⁾	N.A.	39.7 ⁽⁷⁾	N.A.	N.A.	N.A.
		Science	34.4 ⁽⁶⁾	N.A.	38.3 ⁽⁷⁾	N.A.	N.A.	N.A.
13	Activity rate (aged 15+) (%)	Total	47.0	51.7	54.6	54.0	54.7 ⁽⁹⁾	55.5
		Male	55.7	60.4	62.7	62.0	62.9 ⁽⁹⁾	63.6
		Female	39.0	43.6	47.1	46.5	47.0 ⁽⁹⁾	47.9
14	Inactivity rate (aged 15+) (%) ^C	Total	53.0	48.3	45.4	46.0	45.3 ⁽⁹⁾	44.5
		Male	44.3	39.6	37.3	38.0	37.1 ⁽⁹⁾	36.4
		Female	61.0	56.4	52.9	53.5	53.0 ⁽⁹⁾	52.1
15	Employment rate (aged 15+) (%)	Total	38.0	42.6	49.0	49.1	48.6 ⁽⁹⁾	50.3
		Male	45.5	50.3	56.6	56.6	56.5 ⁽⁹⁾	57.9
		Female	31.1	35.4	41.9	42.1	41.3 ⁽⁹⁾	43.2

	Indicator	2010	2015	2019	2020	2021	2022	
16	Employment rate by educational attainment (aged 15-74) (%)	Low ⁽²⁾	27.3	29.6	34.8	34.0	30.4 ⁽⁹⁾	30.7
		Medium ⁽³⁾	46.1	49.3	55.9	56.6	56.8 ⁽⁹⁾	58.2
		High ⁽⁴⁾	60.8	63.2	70.5	69.6	71.5 ⁽⁹⁾	74.6
17	Employment by sector (%) ^{(8)C}	Agriculture	22.3	19.4	15.6	14.6	15.0 ⁽⁹⁾	14.8
		Industry	25.6	24.5	27.4	28.0	29.7 ⁽⁹⁾	29.9
		Services	51.9	56.1	56.9	57.5	55.3 ⁽⁹⁾	55.3
18	Incidence of self-employment (%) ^C	32.4	30.2	27.7	27.0	23.0 ⁽⁹⁾	23.0	
19	Incidence of vulnerable employment (%) ^C	28.6	26.3	24.3	23.9	19.6 ⁽⁹⁾	19.6	
20	Unemployment rate (aged 15-74) (%)	Total	19.3	17.8	10.5	9.1	11.1 ⁽⁹⁾	9.4
		Male	18.5	16.9	10.0	8.8	10.2 ⁽⁹⁾	9.1
		Female	20.4	18.8	11.2	9.5	12.1 ⁽⁹⁾	9.9
21	Unemployment rate by educational attainment (aged 15-74) (%)	Low ⁽²⁾	16.3	15.6	11.2	9.1	13.6 ⁽⁹⁾	12.0
		Medium ⁽³⁾	22.5	19.4	11.2	9.6	11.6 ⁽⁹⁾	10.3
		High ⁽⁴⁾	13.1	15.3	8.4	8.0	8.6 ⁽⁹⁾	6.3
22	Unemployment rate (aged 15-24) (%)	Total	46.3	43.2	27.5	26.6	26.4 ⁽⁹⁾	24.4
		Male	45.4	40.1	26.1	25.0	24.6 ⁽⁹⁾	23.2
		Female	47.6	48.4	29.9	29.5	29.5 ⁽⁹⁾	26.2
23	Proportion of people aged 15-24 not in employment, education or training (NEETs) (%)	Total	20.4	20.1	15.3	15.9	16.4 ⁽⁹⁾	13.0
		Male	21.7	20.3	14.9	17.0	16.9 ⁽⁹⁾	13.4
		Female	19.0	19.8	15.8	14.8	15.9 ⁽⁹⁾	12.6
24	Participation in training/lifelong learning (% aged 25-64)	Total	4.0	4.8	4.3	3.7	4.8 ⁽⁹⁾	5.9
		Male	3.9	4.5	3.8	3.3	4.2 ⁽⁹⁾	4.4
		Female	4.2	5.1	4.8	4.0	5.4 ⁽⁹⁾	5.9
25	Human Development Index	0.767	0.794	0.811	0.804	0.802	M.D.	

Last update: 19/07/2023

Sources:

Indicators 1, 2, 3, 4, 5, 6, 7: The World Bank, World Development Indicators database

Indicators 7, 10, 11: UNESCO, Institute for Statistics

Indicators 8, 9, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24: Eurostat

Indicator 12: OECD PISA 2018 Results (Volume I) Annex B1

Indicator 25: UNDP

Notes:

(1) Estimation.

(2) Low - ISCED 0-2

(3) Medium - ISCED 3-4

(4) High - ISCED 5-8

(5) Applies to 2011

(6) Applies to 2009

(7) Applies to 2018

⁽⁸⁾ Totals do not add up to 100 due to economic activities not allocated by sector. Services (TOTAL and FEMALE) do not include activities of extraterritorial organisations and bodies. Services (MALE) do not include activities of extraterritorial organisations and bodies

⁽⁹⁾ 2021: break in time series

Legend:

C= ETF calculations

N.A. = Not Applicable

M.D. = Missing Data

SERBIA: STATISTICAL ANNEX 2- Labour Market Policies – Indicators

2023 update

This fiche includes an overview of the main trends in the implementation of Active Labour Market policies and key indicators pertaining to Public Employment Service (PES). It provides a summary of data through tables and visual representations, along with definitions and outlines of existing trends.

The key indicators are the number of registered unemployed persons by sex, age and education; participants in counselling activities; participants in labour market measures; expenditure on labour market policies; transition from unemployment to employment; number of job vacancies by major occupational groups and economic activities. Where applicable and available, datasets are disaggregated by sex, age and level of education.

The document was prepared using ETF-collected data from public sources (websites of PES, ministries of labour, statistical offices and/or shared by relevant country institutions).

Number of registered unemployed persons

Definition: registered unemployed persons are all persons who are registered with the Public Employment Services and do not have a job, excluding other categories of persons wanting to change jobs (e.g. employees) or who are not actively looking for a job (inactive). Data refer to registered unemployed persons at the end of the year (reference period); it is an accumulated number, meaning the sum of the number of unemployed persons as of 1 January and the number of registered persons for each month.

As per the applicable definition in Serbia, an unemployed person is a person aged between 15 and the age eligible for retirement (or 65 at most), capable and immediately ready to work, who has not entered into an employment contract or exercised the right to work in any other way, who is on the unemployment register and who is actively looking for a job.

	2019	2020	2021	2022
Unemployed persons (total)	529 508	509 179	512 844	448 618
Male	242 636	227 960	227 521	197 204
Female	286 872	281 219	285 323	251 414
under 30 years	109 573	105 819	105 959	88 241
30 + years	419 934	403 360	406 885	360 378
Low level of education includes: 1) without education; 2) 1-3 grades of primary education; 3) 4-7 grades of primary education; 4) primary education (8 years).	160 455	155 584	158 892	143 118
Lower secondary education lasting 1-2 years;	17 569	16 056	15 619	13 468
Lower secondary education lasting 3 years;	113 948	106 924	106 392	91 742
Upper secondary education lasting 4 years;	156 778	152 053	155 146	136 305
Specialisation after secondary education, school for highly qualified workers;	3 471	3 188	2 999	2 494

	2019	2020	2021	2022
High applied education school (2-3 years)	15 421	14 153	13 495	11 284
High applied education school (3 years); first level of faculty	12 523	12 643	12 705	10 772
Faculty, academy, integrated studies (medicine, pharmacy, stomatology and veterinary science)	48 556	47 823	46 876	38 806
Master academic studies	625	593	557	471
Doctoral academic studies	163	162	164	160
Low education attainment	178 023	171 639	174 511	156 585
Medium education attainment	274 197	262 165	264 537	230 541
High education attainment	77 287	75 374	73 796	61 492

Source: National Employment Service of the Republic of Serbia <https://nsz.gov.rs/>

Note: Annual average data (the sum of all values reported in a twelve-month period divided by 12).

Participants in labour market services

Definition: Labour market services refer to labour market interventions where the main activity of participants is related to job search and where participation usually does not result in a change of labour market status. Within this scope of data collection, job matching and counselling were taken into account. Data refer to registered unemployed persons and jobseekers at the end of the year (reference period).

Participants in job brokerage

	2019	2020	2021	2022
Job brokerage at the request of the employer - Total	119 950	82 295	107 667	231 725
Job brokerage at the request of the employer (online)	25 889	19 968	29 501	67 222
Job brokerage at the request of the employer (in person), out of which	94 061	62 327	78 166	164 503
Low education attainment	31 688	19 211	26 043	40 588
Medium education attainment	50 989	34 655	41 209	99 455
High education attainment	11 384	8 461	10 914	24 460
Employment counselling	1 005 288	910 786	1 047 659	893 238
Individual employment plan	898 167	855 095	1 025 251	885 002

Source: National Employment Service of the Republic of Serbia <https://nsz.gov.rs/>

Participants in orientation and counselling services

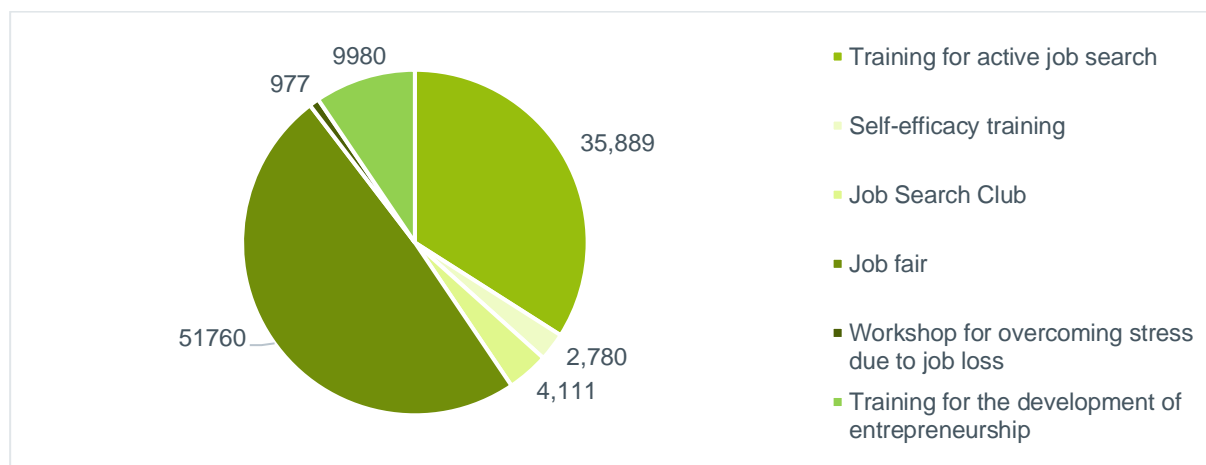
Professional orientation and counselling on career planning	2019	2020	2021	2022
Professional orientation and counselling on career planning - Total	100 682	137 178	119 345	99 868
Professional orientation and counselling on career planning - Total not including online	28 481	32 033	24 856	26 841
Male	9 859	8 708	6 558	8 200
Female	18 622	23 325	18 298	18 641
under 29 years	15 567	13 312	11 773	13 470
29 + years	12 914	18 721	13 083	13 371
Low education attainment	10 841	6 607	7 976	9 411
Medium education attainment	9 977	9 284	7 977	8 976
High education attainment	7 663	16 142	8 903	8 454
Information about opportunities for career development	7 605	5 775	5 700	6 338
Counselling on opportunities for career development	10 692	6 920	8 479	9 976
Selection for employment and inclusion in APZ measures	10 184	19 338	10 677	10 527
Information about opportunities for career development (online)	72 201	105 145	94 489	73 027

Source: National Employment Service of the Republic of Serbia <https://nsz.gov.rs/>

Participants in labour market measures

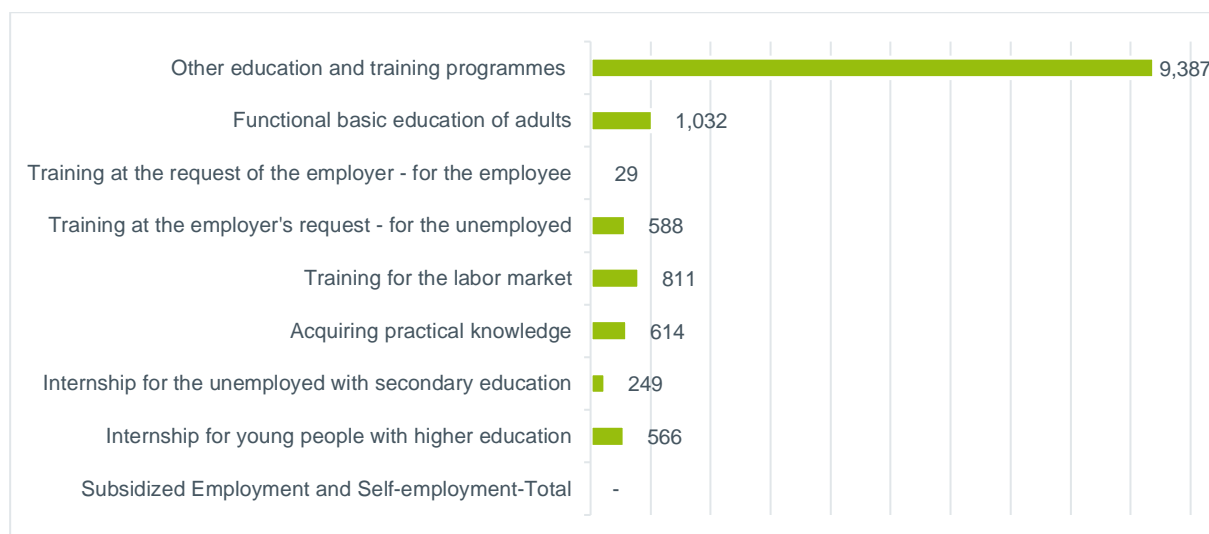
Definition: Labour market measures (LMM) cover interventions that provide temporary support for groups that are disadvantaged in the labour market and which aim to get the unemployed into work, help people move from involuntary inactivity into employment, or maintain the jobs of persons threatened by unemployment. Such measures include training, employment incentives, supported employment and rehabilitation, direct job creation and start-up incentives.

Participants in active job search measures, 2022



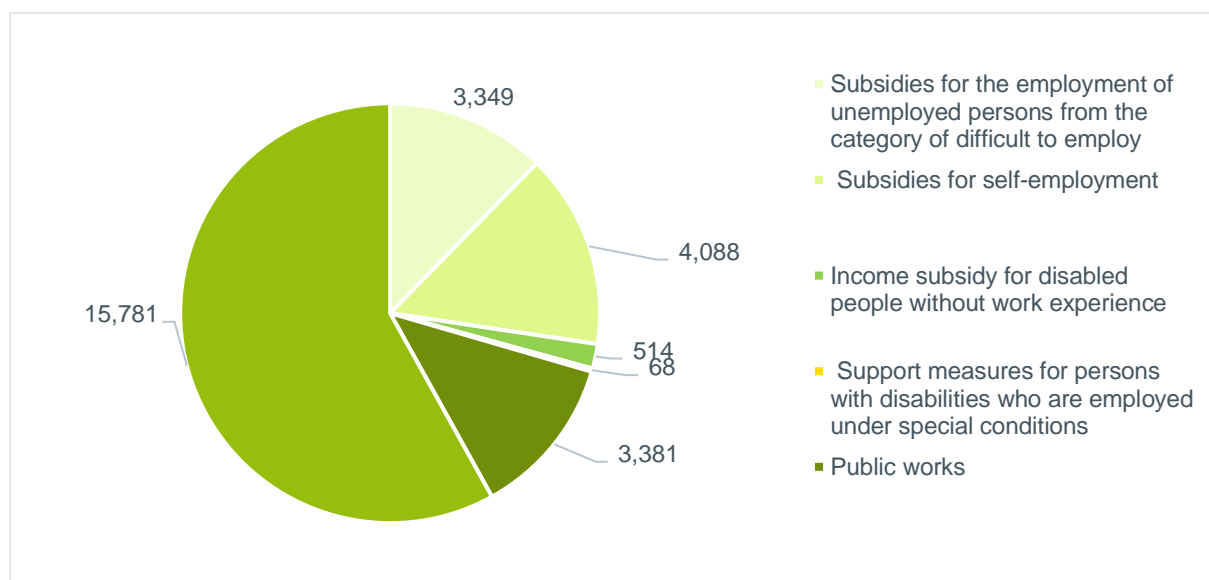
Source: National Employment Service of the Republic of Serbia <https://nsz.gov.rs/>

Participants in additional education and training programmes, 2022



Source: National Employment Service of the Republic of Serbia <https://nsz.gov.rs/>

Participants in subsidised employment and self-employment; public work, incentives for employment and development of entrepreneurship, 2022



Expenditure on labour market policies

Definition: Expenditure on labour market policies is limited to public interventions which are explicitly targeted at groups of persons with difficulties in the labour market: the unemployed, the employed at risk of involuntary job loss and inactive persons who would like to enter the labour market.

Within the scope of this data collection process, the LMP expenditure indicator refers to the cost of LM services (LMS) and measures (LMM). Expenditure on LMP supports (such as unemployment benefits) are excluded.

Expenses and expenditures realised during the year	2019	2020	2021	2022
Total expenditure of NES	22 600 067 697.88	21 329 011 061.93	26 543 919 082.87	23 407 249 296.37
SUPPORT PROGRAMME III: Active Employment Policy	4 671 208 170.28	4 301 234 472.31	5 775 684 457.49	6 846 782 098.05
Programmes and measures of active employment policy	3 151 278 654	3 076 531 696	4 529 229 484	5 420 088 412
GDP at current prices, amount in millions (data extracted from World Bank)	5 421 851.30	5 504 430.6	6 270 096.9	m
Total expenses and expenditures realised during the year (% of GDP) c)	0.42	0.39	0.42	m
SUPPORT PROGRAMME III: Active Employment Policy (% of GDP) c)	0.09	0.08	0.09	m
Programmes and measures of active employment policy (% of GDP) c)	0.06	0.06	0.07	m

Source: National Employment Service of the Republic of Serbia (expenditure of the agency) and National Statistical Office (GDP data)

Transition from unemployment to employment

Definition: Number of registered unemployed persons who moved from unemployment into employment per age group and gender, as a share of the number of registered unemployed persons.

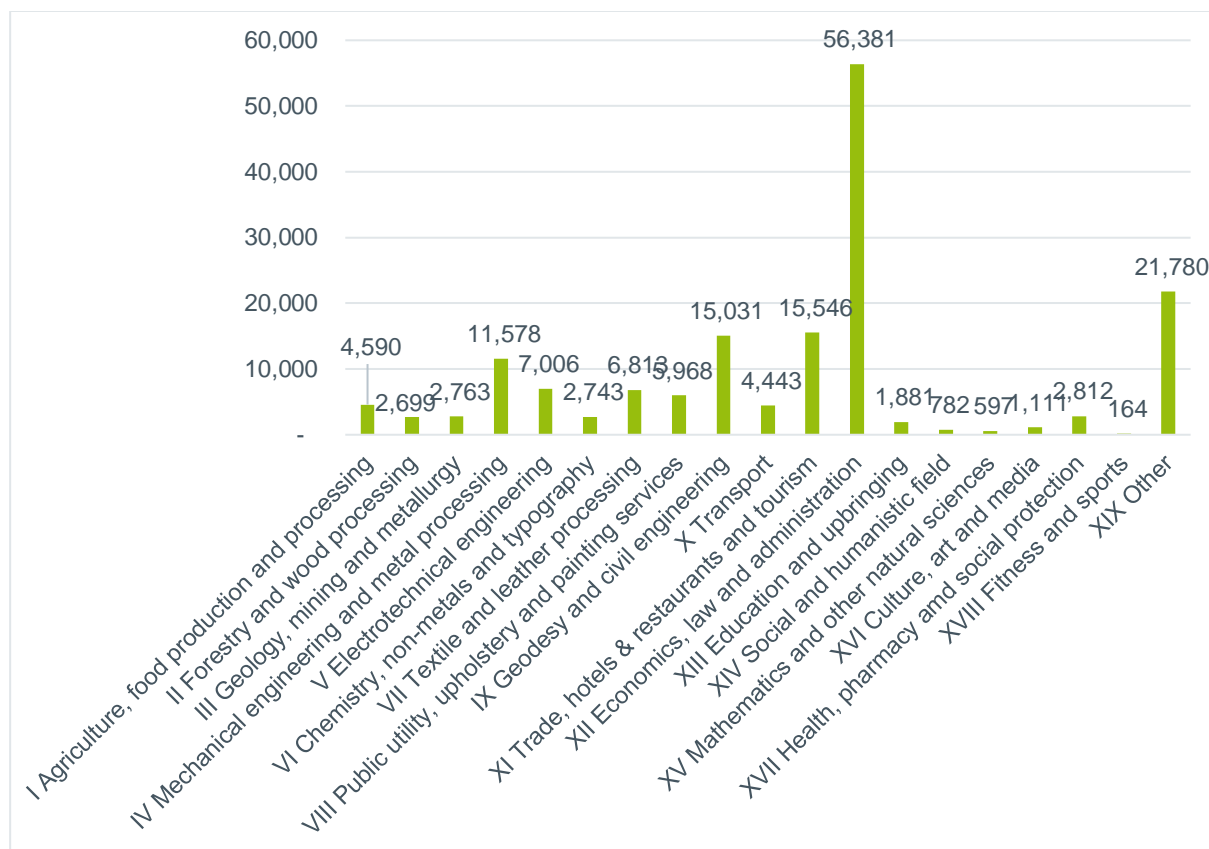
%	2019	2020	2021	2022
Total	46.0	40.9	43.0	44.1
Male	46.1	41.1	42.1	41.7
Female	45.9	40.7	43.8	46.0
under 30 years	71.1	64.3	68.5	70.0
30 + years	39.4	34.7	36.4	37.8
Low education attainment	26.1	22.4	23.1	22.9
Medium education attainment	51.2	46.1	47.0	48.2
High education attainment	73.1	64.6	75.7	82.9

Source: National Employment Service of the Republic of Serbia <https://nsz.gov.rs/>

Number of job vacancies

Definition: A **job vacancy** is a post, either newly created, unoccupied, or about to become vacant, which an employer actively seeks to fill with a suitable candidate from outside the enterprise (including any further necessary steps), immediately or in the near future. Although the definition states that a job vacancy should be open to candidates from outside the enterprise, this does not exclude the possibility of appointing an internal candidate to the post. A post that is open to internal candidates only, however, is not considered a job vacancy.

Number of registered vacancies by economic activity, 2022



Source: National Employment Service of the Republic of Serbia <https://nsz.gov.rs/>

Note: Registered vacancies refer to the number of persons for whom employers reported the need for job-matching services in the reporting period.

The data presented are cumulative data (registered vacancies during the year) and the annual data are calculated using the monthly data present in the statistical bulletins.

KEY DONOR PROJECTS IN EDUCATION, TRAINING AND EMPLOYMENT

Donor funding has helped fill some of the resource gaps in Serbia's education, training, and employment sectors.

The EU Instrument for Pre-accession Assistance (IPA) provides significant financial and technical resources to enhance skills for employment and support education reforms. According to the Commission's website, Serbian financial assistance under Education, employment and social policies and other areas of support will be fully supported as per the agreement with the Serbian government. More detailed information under the IPA 2021-2027 can be found here: https://neighbourhood-enlargement.ec.europa.eu/enlargement-policy/overview-instrument-pre-accession-assistance/serbia-financial-assistance-under-ipa_en.

The Western Balkans Fund (WBF) is an international organisation located in Tirana, Albania, which was founded by the governments of Albania, Bosnia and Herzegovina, Kosovo³⁷, North Macedonia, Montenegro, and Serbia. They co-fund with the EU many country/regional projects on skills. One of the pillars of this substantial programme funds VET support, exchange and cooperation among the Western Balkan countries. For more information, see the [WBF Flyer: https://webalkans.eu/en/about/](https://webalkans.eu/en/about/)

The [Regional Challenge Fund \(RCF\) \(rcf-wb6.org\)](https://rcf-wb6.org) finances investments for training providers that jointly engage in cooperative training activities with partnering enterprises in the Western Balkans, thus promoting dual cooperation within and across countries in the region. Established in late 2020, the RCF launched its first two open funding calls in 2021 and 2022, which have already gained significant traction and are expected to operate for five years in total. The key goals of the RCF are to strengthen the labour market relevance of VET, as well as to increase the employability of VET students by bridging the gap between skills demand and supply, reducing youth unemployment in the Western Balkans.

The European Investment Bank has rolled out the School Digitalisation Project in Serbia ([EIB supports digitalisation of Serbian schools with EUR 65 million](#)). The investment will encompass the introduction in schools of internet connections, new IT equipment, e-books, e-classrooms, and e-diaries. It will also include the training of teachers on how to conduct digital education. Among other benefits, this project will enable primary and secondary schools across Serbia to conduct online teaching without interruption, including in situations of natural or other disasters. The EIB financial package will also be used to finance the rollout of the EU SELFIE tool for the further digitalisation of school-based and work-based learning.

'From Education to Employment (E2E)' is a Swiss-funded partnership project between the governments of Switzerland and Serbia. It was launched in 2015 and will run until the end of 2023. It is designed to create preconditions for faster recruitment and youth employment. Under this project, the Swiss government made EUR 12.3 million available, while the Serbian government contributed EUR 6 million. ([EN E2E Znanjem do posla](#)).

GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH) supports skills for employment. The ongoing programme entitled 'Dialogue on Employment Creation, Initiative and Dual Education / Sustainable economic growth and employment' provides direct support to VET schools and the private sector in Serbia (<https://www.giz.de/en/worldwide/86542.html>).

UNICEF Serbia, in cooperation with the National Employment Service, Ministry of Labour, Employment, Veteran and Social Affairs and other partners, has launched a programme on '*Promoting Youth Employability through Internships*', running from 1 November 2021 until the end of 2022. The programme will aim to establish links between at least 2 000 young people and 500 employers. The

³⁷ This designation is without prejudice to positions on status and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

application platform 'Biram uspeh (I Choose Success) – Promoting Youth Employability' is available at www.biramuspeh.com.

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LIST OF REFERENCES

- Caves, Katherine; Oswald-Egg, Maria Esther (2023): *An empirical case of education policy implementation in Serbian VET*, *International Journal for Research in Vocational Education and Training (IJRVET)*, ISSN 2197-8646, European Research Network in Vocational Education and Training (VETNET), European Educational Research Association, Bremen, Vol. 10, Iss. 2, pp. 191-219, <https://doi.org/10.13152/IJRVET.10.2.3>
- European Commission, *Overview and Country Assessment 2023 Economic Reform Programmes of Albania, Montenegro, North Macedonia, Serbia, Turkey, Bosnia and Herzegovina and Kosovo**, Institutional Paper 252, May 2023, available at https://economy-finance.ec.europa.eu/system/files/2023-05/ip252_en.pdf
- European Commission, *Overview and Country Assessment 2022 Economic Reform Programmes of Albania, Montenegro, North Macedonia, Serbia, Turkey, Bosnia and Herzegovina and Kosovo**, 21 June 2022, available at https://economy-finance.ec.europa.eu/publications/2022-economic-reform-programmes-albania-montenegro-north-macedonia-serbia-turkey-bosnia-and_en
- European Commission, Communication: *Key findings of the 2022 Report on Serbia* [Key findings of the 2022 Report on Serbia \(europa.eu\)](https://economy-finance.ec.europa.eu/publications/2022-economic-reform-programmes-albania-montenegro-north-macedonia-serbia-turkey-bosnia-and_en)
- European Commission, Communication 'Final Economic and Investment Plan for the Western Balkans Factsheet', Factsheets | Published 2021, <https://webalkans.eu/en/country/serbia/>
- European Commission (2021), *2021 Economic Reform Programmes of Albania, Montenegro, North Macedonia, Serbia, Turkey, Bosnia and Herzegovina and Kosovo* (accessed 30 January 2022).
- European Commission (2021), '*The European Pillar of Social Rights Action Plan*' (accessed 30 January 2022)
- European Commission (2021), *Towards a European graduate tracking mechanism*, <http://dx.doi.org/10.2766/970793> (accessed 20 November 2022).
- European Training Foundation (ETF), *Guidance System in Serbia, 2023*, [Good practices | Euroguidance Network](https://www.etf.europa.eu/en/news-and-events/news/guidance-system-in-serbia-2023)
- European Training Foundation (ETF), *Torino Process Monitoring Report – Serbia, 2023*. Upcoming, <https://www.etf.europa.eu/en/what-we-do/torino-process-policy-analysis-and-progress-monitoring>
- European Training Foundation, *Mapping Covid-19: The Overview*, <https://www.etf.europa.eu/en/news-and-events/news/mapping-covid-19-overview>
- European Training Foundation (ETF), *How migration, human capital and the labour market interact in Serbia, 2021*, <https://www.etf.europa.eu/en/publications-and-resources/publications/how-migration-human-capital-and-labour-market-interact>
- European Training Foundation (ETF), *Youth Situation in Serbia: Employment, skills, and social inclusion, 2021*, <https://www.etf.europa.eu/en/publications-and-resources/publications/youth-situation-serbia-employment-skills-and-social>
- European Training Foundation (ETF), '*Active Labour Market Policies and Human Capital Development – Fostering Innovation and Impactful Actions for Recovery*', 2021([cross-country report](https://www.etf.europa.eu/en/publications-and-resources/publications/active-labour-market-policies-and-human-capital-development)) | [ETF \(europa.eu\)](https://www.etf.europa.eu)
- European Training Foundation and Joint Research Centre (ETF & JRC), '*Scaling up and integrating the SELFIE tool for schools' digital capacity in education and training systems: methodology and lessons learnt*,' Retrieved from <https://www.etf.europa.eu/en/publications-and-resources/publications/scaling-and-integrating-selfie-tool-schools-digital>

European Training Foundation (ETF), *Youth situation in Serbia: Employment, skills, and social inclusion*, ETF publication, Turin, 2021a. Retrieved from https://www.etf.europa.eu/sites/default/files/2021-06/youth_in_serbia.pdf

European Training Foundation, *Youth disengagement and skills mismatch in the Western Balkans*, ETF publication, Turin, 2021b. Retrieved from [02_youth_western_balkans_final.pdf \(europa.eu\)](02_youth_western_balkans_final.pdf (europa.eu))

European Training Foundation (ETF), *Migration, Human Capital, and Labour Market*, 2021

European Training Foundation (ETF), *Monitoring the Youth Guarantee in Serbia*, not published, July 2022.

European Training Foundation (ETF), 2023, *Key policy developments in education, training and employment – Serbia 2022*, [Key policy developments in education, training and employment – Serbia 2022 | ETF \(europa.eu\)](Key policy developments in education, training and employment – Serbia 2022 | ETF (europa.eu))

European Training Foundation (ETF), 2022, *National Career Development Support System Review. Serbia Report*. Retrieved from <https://www.etf.europa.eu/en/document-attachments/career-development-support-system-review-serbia>

European Training Foundation (ETF), 2022 *COUNTRY BRIEF – SERBIA Integrated monitoring process of the EU Council Recommendation on VET and the Osnabrück Declaration*, [Country Brief Serbia edited \(1\).pdf \(europa.eu\)](Country Brief Serbia edited (1).pdf (europa.eu))

European Training Foundation (ETF), *ETF in Serbia*, 2022 <https://www.etf.europa.eu/en/where-we-work/countries/serbia>

European Training Foundation (ETF), *Key Indicators on Education, Skills and Employment*, Turin, 2022b. Retrieved from <https://www.etf.europa.eu/en/publications-and-resources/publications/key-indicators-education-skills-and-employment-2022>

European Training Foundation (ETF), *Key indicators on education, skills, and employment 2022*, Turin, 2022c. Retrieved from <https://www.etf.europa.eu/en/publications-and-resources/publications/key-indicators-education-skills-and-employment-2022>

European Training Foundation (ETF), *'Policies for Human Capital Development in Serbia- An ETF Torino Process assessment, 2020'*, accessed November 2022 <https://www.etf.europa.eu/en/publications-and-resources/publications/trp-assessment-reports/serbia-2020>

Foundation for the Advancement of Economics Dragan Aleksić, Mihail Arandarenko, Galjina Ognjanov *'Ex-post Analysis of the National Employment Strategy for the period 2011-2020'*, <Ex-post Analysis of the National Employment Strategy FREN>

International Monetary Fund (IMF), *Staff Reaches Staff-Level Agreement with Serbia on the Third Review Under the Policy Coordination Instrument and a Stand-By Arrangement Request*, 2 November 2022

Institute for Improvement of Education, 2021, *The Report on Referencing the National Qualifications Framework of the Republic of Serbia to the European Qualifications Framework for Lifelong Learning and Self-certification to the Qualifications Framework of the European Higher Education Area* (<Izveštaj o povezivanju Actioning okvira kvalifikacija Republike Srbije sa Evropskim okvirom kvalifikacija za collusion učenje i Okvirom kvalifikacija Verismo prostora visokog obrazovanja>) (last accessed 11 November 2022)

Government of the Republic of Serbia, 2021, *Action plan for realisation of the <Strategy for Development of Education in Serbia by 2030>* (last accessed 10 October 2022)

Government of the Republic of Serbia, *Employment Strategy 2021-2026* (New employment strategy for more efficient labour market (srbija.gov.rs). http://socijalnoukljucivanje.gov.rs/wp-content/uploads/2021/08/Strategija_zaposljavanja_u_Republici_Srbiji_2021-2026_engleski.pdf

Government of the Republic of Serbia, *Smart Specialisation Strategy, 2020-2027*, Паметна специјализација – Стратегија истраживања и иновација за паметне специјализације (mpn.gov.rs)

Government of the Republic of Serbia and the European Investment Bank (EIB): *Serbia and the EIB*, <https://www.eib.org/en/projects/regions/enlargement/the-western-balkans/serbia/index.htm>

Government of the Republic of Serbia, Industrial Policy Strategy 2021-2030 (Government adopts Industrial Policy Strategy from 2021 to 2030 (srbija.gov.rs))

Government of the Republic of Serbia 'Economic Reform Programme for the Period 2022-2024', <https://www.mfin.gov.rs/en/documents2-2/economic-reform-program-erp->

Grujić, G. (2020). 'National model of Dual Education.' Government of the Republic of Serbia, Statistical Office of the Republic of Serbia (SORS), <https://www.stat.gov.rs/en-US> (last accessed 15 October 2022)

Grujić, G. (2020). *National model of dual education: The road to the future of Serbia*, Ministry of Education, Science and Technological Development

Law on Foundations of the Education System, Official Gazette of the RS 88/2017, 27/2018, 10/2019, 6/2020, 129/2021; which entered into force in January 2022) (Zakon o osnovama sistema obrazovanja i vaspitanja, Službeni glasnik RS 88/2017, 27/2018, 10/2019, 6/2020, 129/2021), <http://www.pravno-informacioni-sistem.rs/SlGlasnikPortal/eli/rep/sgrs/skupstina/zakon/2017/88/1/reg>

Laws and bylaws under the Ministry of Education, Science and Technological Development of the Republic of Serbia, <http://www.mpn.gov.rs/dokumenta-i-propisi/zakonski-okvir/>

Maghnouj, S., et al. (2020), OECD Reviews of Evaluation and Assessment in Education: Serbia, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, <https://doi.org/10.1787/225350d9-en>.

Ministry of Education, Science and Technological Development of the Republic of Serbia (2020). Report on referencing the National Qualifications Framework of the Republic of Serbia to the European Qualifications Framework for Lifelong Learning and Self-certification to the Qualifications Framework of the European Higher Education Area. 9 National Qualifications Framework in the Republic of Serbia <http://noks.mpn.gov.rs/wpcontent/uploads/2019/10/Национални-оквир-квалификација-у-Републици-Србији.pdf> ; <https://www.etf.europa.eu/sites/default/files/document/Serbia.pdf>

Ministry of Education, Science and Technological Development of the Republic of Serbia (2012), *Strategy for education development in Serbia 2020*. Retrieved from <https://erasmusplus.rs/wp-content/uploads/2015/03/Strategy-for-Education-Development-in-Serbia-2020.pdf>

Ministry of Education, Science and Technological Development of the Republic of Serbia (2020). *Report on referencing National Qualifications Framework of the Republic of Serbia to the European Qualifications Framework for Lifelong Learning and Self-certification to the Qualifications Framework of the European Higher Education Area*, <http://noks.mpn.gov.rs/en/referencing-nqfs-with-%D0%B5qf/>.

Ministry of Education, Science and Technological Development of the Republic of Serbia (2012). Strategy for education development in Serbia 2020, <https://erasmusplus.rs/wpcontent/uploads/2015/03/Strategy-for-Education-Development-in-Serbia-2020.pdf>

Mircea Badescu and Cristina Mereuta, 'Skills mismatch: Measurement and policy implications in selected countries, in *Changing skills for a changing world: Understanding skills demand in EU neighbouring countries*,' (ETF, 2021)

National Qualifications Framework in Serbia, <http://noks.mpn.gov.rs/en/>

National Career Development Support System Review - Serbia, © European Training Foundation, 2022; Retrieved from <https://www.mos.gov.rs/storage/2022/09/career-guidance-review-serbia-sr.pdf>; <https://www.mos.gov.rs/storage/2022/09/career-guidance-review-serbia-en-0.pdf>

OECD (2018), 'Education GPS, OECD, 24/10/2023, 16:22:31 <http://gpseducation.oecd.org>'

OECD, (2018), Results (Volume III): *What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, <https://doi.org/10.1787/acd78851-en>

OECD (2019), PISA 2018 Results (Volume I): What Students Know and Can Do, PISA, OECD Publishing, Paris, <https://doi.org/10.1787/5f07c754-en> OECD (2019).

OECD (2018) Results (Volume II): *Where All Students Can Succeed*, PISA, OECD Publishing, Paris, <https://doi.org/10.1787/b5fd1b8f-en> OECD (2019).

OECD (2019), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, <https://doi.org/10.1787/acd78851-en>.

OECD (2021), *Competitiveness in South East Europe 2021: A Policy Outlook, Competitiveness and Private Sector Development*, OECD Publishing, Paris, <https://doi.org/10.1787/dcbc2ea9-en>

OECD Reviews of Evaluation and Assessment in Education: Serbia, https://www.oecd-ilibrary.org/education/oecd-reviews-of-evaluation-and-assessment-in-education-serbia_225350d9-en

OECD (2022), *Multi-dimensional Review of the Western Balkans: From Analysis to Action* | OECD, Development Pathways | OECD iLibrary ([oecd-ilibrary.org](https://www.oecd-ilibrary.org))

OECD (2022), *SME Policy Index: Western Balkans and Turkey 2022: Assessing the Implementation of the Small Business Act for Europe*, SME Policy Index, OECD Publishing, Paris, <https://doi.org/10.1787/b47d15f0-en>

OECD (2023), *International Migration Outlook 2023*, OECD Publishing, Paris, <https://doi.org/10.1787/b0f40584-en>

Regional Cooperation Council (RCC) (2021), *Study on Youth Employment in Serbia, Annex 6*. Sarajevo: Regional Cooperation Council. Retrieved from https://www.esap.online/download/docs/Study-on-Youth-Employment-in-Srbija_07072021.pdf/12d59f1c25990f81101b6418ed09f1d2.pdf

Regional Cooperation Council (RCC). (2021), *Labour Markets in the Western Balkans: 2019 and 2020*. Sarajevo: Regional Cooperation Council. Retrieved from <https://www.rcc.int/pubs/120/labour-markets-in-the-western-balkans-2019-and-2020>

Statistical Office of the Republic of Serbia (2020), *Participation, employment, and unemployment rate for the population aged 15+* [Announcement No 051]. Retrieved from <https://publikacije.stat.gov.rs/G2020/Pdf/G20201051.pdf>

Serbian Employment Strategy. Retrieved from <https://www.minrzs.gov.rs/sr/dokumenti/predlozi-i-nacrti/sektor-za-rad-i-zaposljavanje/javna-rasprava-o-predlogu-strategije-zaposljavanja-u-republici-srbiji-za-period-od-2021-do-2026-godine>

Statistical Office of the Republic of Serbia (2021), *Participation, employment, and unemployment rate for the population aged 15+* [Announcement No 329]. Retrieved from <https://publikacije.stat.gov.rs/G2021/Pdf/G20211329.pdf>

Statistical Office of the Republic of Serbia (2021), *Rates of activity, employment, and unemployment for youth 15 – 24, Q3 2015 – Q3 2021*. [Web log] Retrieved November 2022 from <https://data.stat.gov.rs/Home/Result/240003010102?languageCode=en-US&displayMode=table&guid=87bb51b8-dffc-4b6c-916c-c10145747971>

Strategy for Education Development in Serbia 2030 – SEDS 2030, Official Gazette of the RS, 63/2021 (Strategija razvoja obrazovanja i vaspitanja u Republici Srbiji do 2030. godine 'Službeni glasnik RS', 63/2021), <http://www.pravno-informacioni-sistem.rs/SlGlasnikPortal/eli/rep/sgrs/vlada/strategija/2021/63/1/reg>

Statistical Office of the Republic of Serbia (2022a), *Statistical release SN70 Number 172 - year LXXII*, 01/07/2022, Retrieved November 2022 from [G20221172.pdf \(stat.gov.rs\)](https://data.stat.gov.rs/G20221172.pdf)

Social Inclusion and Poverty Reduction Unit of the Government of Serbia (2021), *Employment strategy of the republic of Serbia 2021–2026*. Belgrade: Social Inclusion and Poverty Reduction Unit of the Government of Serbia. Retrieved from https://socijalnoukljucivanje.gov.rs/wp-content/uploads/2021/08/Strategija_zaposljavanja_u_Republici_Srbiji_2021-2026_engleski.pdf

World Bank. (2021), *Serbia: Overview [Web log]*. Retrieved November 2022, <https://www.worldbank.org/en/country/serbia/overview#1>

World Bank Group, Washington, DC, <https://databank.worldbank.org/source/world-development-indicators> (accessed 24 June 2021), Retrieved November 2023, <https://www.oecd-ilibrary.org/sites/e140fa87-en/index.html?itemId=/content/component/e140fa87-en>

World Bank (2019), 'Serbia: Building a Skilled Workforce', World Bank Group, Washington, DC (accessed 24 November 2022). Retrieved from <https://pubdocs.worldbank.org/en/260201580323446491/SRB-CEM-Building-a-Skilled-Workforce.pdf>