



**POLICIES FOR
HUMAN
CAPITAL
DEVELOPMENT**
SERBIA

AN ETF **TORINO PROCESS**
ASSESSMENT

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PREAMBLE

The European Training Foundation (ETF) assessment process provides an external, forward-looking analysis of countries' human capital development issues and vocational education and training (VET) policy responses from a lifelong learning perspective. It identifies challenges related to education and training policy and practice that hinder the development and use of human capital, taking stock of them and making recommendations for possible solutions.

Such assessments are a key deliverable of the Torino Process, an initiative launched by the ETF in 2010 and aimed at providing a periodic review of VET systems in the wider context of human capital development and inclusive economic growth. In providing a high-quality evaluation of VET policy from a lifelong learning perspective, the assessment process builds on four key principles: ownership, participation, and holistic and evidence-based analysis.

For the ETF, **human capital development** means supporting countries in the creation of lifelong learning systems that provide opportunities and incentives for people to develop their skills, competences, knowledge and attitudes throughout their lives, with a view to improving their employment prospects and realising their potential, as well as contributing to prosperous, innovative and inclusive societies.

The main purpose of these assessments is to provide a reliable source of information to enable the planning and monitoring of national education and training policies with respect to human capital development, as well as offering a foundation for programming and policy dialogue in support of these policies by the European Union and other donors.

The ETF assessments rely on evidence collected by the respective countries using a standardised reporting template (the National Reporting Framework – NRF) within a participatory process involving a wide variety of actors with a high degree of ownership. The findings and recommendations of the ETF assessments have been shared and discussed with national authorities and beneficiaries. However, the ETF takes full responsibility for each assessment and for any errors and omissions contained therein.

The assessment report starts with a brief description of Serbia's strategic plans and national policy priorities (Chapter 1). It then presents an overview of issues related to the development and use of human capital in the country (Chapter 2), before moving on to an in-depth discussion of relevant human capital policy areas, which in the view of the ETF require immediate attention (Chapter 3). Chapter 4 provides the overall conclusions of the analysis.

The annexes provide additional information: a summary of the recommendations in the report (Annex 1), and a diagram of the education and training system of Serbia (Annex 2). The National Torino Process Report (TRP national report) compiled by the country itself can be found here:

<https://openspace.etf.europa.eu/trp/torino-process-2018-2020-serbia-national-report>

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EXECUTIVE SUMMARY

Context

The European Training Foundation (ETF) assessment of the Republic of Serbia (hereafter Serbia) provides an external, forward-looking analysis of the country's human capital development issues and Vocational Education and Training (VET) policy responses in a lifelong learning perspective. It is based on evidence provided in the national Torino Process report for Serbia, compiled in 2018–19 using a standardised reporting template questionnaire (National Reporting Framework) and additional information sources, where relevant.

Serbia is preparing its new Education Strategy for the period until 2030, and this assessment is meant as an input into this new strategy. This was a conclusion of the stakeholders' workshop convened in Belgrade on 22 May 2019, to discuss an early draft of the ETF assessment. Participants found the ETF findings relevant, and further elaborated the recommendations. The ideas they contributed are reflected in this final report. The new strategy will cover all education streams, a positive move towards an integrated vision of the learning and skills development system.

Findings on human capital

Serbia envisions economic stability, social cohesion and innovation as core features of its development model, and strives for European Union (EU) accession in the medium term. The country has been an official candidate since 2012. The government has defined a coherent country strategy, in which sustained growth, economic competitiveness, social cohesion and innovation are equally ranked in terms of importance.

The Economic Reform Programme (ERP) summarises the incentives to entice national and foreign investments in the sectors that show the best prospects. In the government's desired scenario, the investments should drive the development and use of human capital towards innovation-intensive sectors. There is a search for interplay between digitalisation, innovation and diversification, and good quality of and equal access to education and training for the development of human capital are fully anchored in this strategy.

Uncertainty plays its role though: like in any development model, not all outcomes are predictable. The new Education Strategy 2030 will rely on the good progress attained with the reforms of the last decade, but will have to address relevant changes in the environment and from inside the system, as follows.

Those aged 40 to 64 outnumber young people in the active population

The population of Serbia is ageing, as in many European societies. The demographic transition will continue over the next few decades, during which the balance between the younger and older cohorts will continue to skew towards the latter.

In the labour market, people aged between 40 and 64 will outnumber the younger cohorts. There are issues with possible skills obsolescence and redundancies.

The economy features a mix of continuity and transformation

The demographic transition is unfolding at the same time as a relevant economic transition. Services are consolidated as the largest contributor to the national Gross Domestic Product (GDP), while the Information and Communications Technology (ICT) sector is reaping the benefits of the global demand for advanced technology. At the same time, manufacturing and agriculture remain important as broad sectors for the national economy.

Notwithstanding the uncertainty and adjustments in the process, the real economy is changing with effects on the labour market. VET has a key role in coping with the transformations, since it accounts for the majority of students in secondary education and for the majority of the overall workforce in the labour market. In fact, VET prepares a sizeable proportion of the country's human capital.

Planning for human capital has become something very different from an administrative or mechanical exercise. International experience shows that systems are reacting to the new complexity, for example by introducing flexibility in access to education and training; investing in key competences; diversifying the provision; and strengthening partnerships with the business sector.

Access to and quality of learning opportunities is not granted for all

Disparities in access to education and the labour market come to the surface when data is broken down by age, gender, socio-economic status, ethnicity and geographical location. This level of granularity is, however, not always available or not on a regular basis; consequently, assessment of the risk areas is at times complex.

This report discusses how place of residence, ethnicity, income and gender can explain the uneven distribution of the opportunities for developing one's human capital in Serbia. The first three factors are especially relevant for detecting disparities in educational enrolment and achievements, whereas the gender gap is clear in the activity rates, which in Serbia are historically lower for women compared to men.

Recommendations for action

Skills development for the ageing active population

Serbia has to move towards expanded and qualitatively sound **continuing training, to imprint a more decisive lifelong learning orientation** on the education system, in particular its VET dimension. Continuing training should become the ordinary, for people in employment as well as unemployed people, and to the extent possible to attract inactive people to the labour market.

This requires a better understanding of the ongoing changes, using both qualitative and quantitative information about new labour market needs. A sound and clear skills intelligence system has to rely on data collection, analyses and effective communication of the intelligence between the actors in the human capital development process. It needs to be a tool that informs the planning of continuing training, with a view to wide and equitable participation of adults in learning.

Skills for the mix of continuity and transformation in the economy

Since initial vocational education forms most of the human capital and its transition to the labour market, it should become better able to prepare young people for the transforming economic activities. **Against an increasing demand for higher skills levels, the VET system is lagging behind post-**

secondary provision as well as short-term tertiary courses. As a result, the competition between secondary VET and higher education is strong on the education offer and labour demand sides. This competition is partly artificial, ignited by the limited offer of VET. Post-secondary VET could cater for both student aspirations to develop as individuals, and employers' demands for stronger skills levels.

More generally, it is critical to re-profile VET as a good-quality option and highlight the possible paths towards personal development, careers, complex jobs, further specialisation, or starting an enterprise. To improve the content of initial VET, there needs to be a well-designed methodology for prospects for job changes, sector by sector or, where possible, activity by activity. It needs to be possible to estimate the changes brought about by innovation, the impact of technology on job destruction, and the scope for continuity in existing job profiles.

Tackling disparities in human capital development and use

We need to recognise that human capital is developing in an uneven manner throughout the country, and that **disadvantaged groups should be provided with affirmative actions in a consistent manner** and often for prolonged periods.

Measures need to be designed that are tailored to well-identified needs and that combine different actions, given that only targeted programmes have proven effective in reaching the most disadvantaged people, as opposed to generic ones which have been failing in this respect. The modalities for delivering training and other support to human capital development and its use in the labour market should build on the learning attitude and preferences of the individuals. Adequate resources need to be allocated to develop the human capital of those most in need.

Adequate financial resources for human capital in 2030

The new **Education Strategy 2030 will have to mobilise increased financial resources** to match the development of human capital with the country's ambitions.

A plan needs to be made for resource mobilisation to be discussed within the government and between the government and non-state actors comprising social partners and civil society organisations.

1. INTRODUCTION

1.1 About this assessment

This European Training Foundation (ETF) assessment offers an external overview and analysis of evidence provided in the national Torino Process (TRP) report of the Republic of Serbia (hereafter Serbia), which was compiled by national authorities in 2018–19 with the help of a standardised framework questionnaire for national reporting (National Reporting Framework – NRF).

The themes discussed in the present report emerged on the basis of the NRF and in consultation with the ETF country and thematic team responsible for Serbia. The findings were verified in consultation with national stakeholders, who gave positive feedback on the applicability and focus of the assessment recommendations during a participatory workshop held in Belgrade on 22 May 2019.

This ETF assessment comes at an important point as the country prepares for the next multiannual cycle of reform implementation along the lines of these priorities, which includes preparation for European Union (EU) support through the next generation of the Instrument for Pre-Accession Assistance in 2021–27. The report is expected to help with the prioritisation of reforms and the design of actions by providing input to policymakers in the domain of education and training. The assessment findings complement the monitoring of the Economic Reform Programme (ERP) from a sector point of view.

Like other ETF assessments, this paper is not meant to be exhaustive. The national TRP report of Serbia covers various aspects around human capital development and use, while the focus here is on challenges that the ETF recommends addressing as a matter of priority.

1.2 Country overview

With a population slightly above 7 million, Serbia is the most populated country in the Western Balkans. The economy grew for the fourth consecutive year in 2018, and 2019 brought a positive economic situation too, with growth matched by increasing employment. Economic stabilisation, sustainable and inclusive growth, and EU accession are the key strategic priorities leading the government's actions.

Serbia became a full candidate to EU membership in 2012, while formal negotiations started officially at the end of 2013. Education and employment policies are part of the negotiation chapters, which represent a stimulating drive to reform relevant spheres of education and the labour market, including Vocational Education and Training (VET), active employment policies, youth transition, data and intelligence gathering for evidence-based policies, and institution building.

1.3 Strategic context

The government of Serbia has defined a coherent strategy for the country's development, comprising a set of goals that embrace the economic and societal dimensions in a comprehensive and coherent manner. These goals along with the long-term vision are contained in the ERP, a major policy document stating the commitments and milestones in the process towards EU accession. The ERP serves the purpose of high-level policy dialogue between Serbia and the EU, and in each rolling update reflects in broad terms the progress made, the negotiation outcomes and upcoming commitments.

This section draws from the ERP 2019–21 to frame the ETF assessment in the country's strategic context of national commitments, development priorities and aspirations for the future. The data cited is either from Eurostat, notably on education and employment, or from the ERP itself, notably on the economic and social goals.

Human capital and economic highlights

Serbia has a tradition of continuous attention to and development of human capital. Education statistics indicate progress from 2010 to 2018, shown by the increased overall educational attainment in the population aged 15 or above. In 2018, 25% of the population had high education levels, 58% had medium-level education, while 16% had attained a low level of education. In 2010 the situation was reversed, i.e. people with a low level of education slightly exceeded those with a high level of education.

Serbia has managed to leave behind the jobless growth phenomenon of the early 2010s. Employment grew from 46.7% in 2017 to 47.6% in 2018 according to Eurostat data, faring much better for people with medium and high levels of education. The unemployment rate decreased to 12.8% in 2018, though it remained close to 30% for young people aged 15 to 24 (Eurostat data). More people became active in the labour market from 2014 to 2018, but this applied more to men than women.

The 2% Gross Domestic Product (GDP) growth in 2018 marked a positive result for the fourth consecutive year, after the low in 2014. Services are the lead contributor to growth, owing especially to trade, the increasingly strong Information and Communications Technology (ICT) sector and catering, which showed impressive growth as a direct consequence of the effort to enhance tourism. For industry, the driving sectors are construction, manufacturing (in particular rubber), machinery and the chemical industry. The contribution from agriculture was significant, though lower than expected due to extreme weather events.

Serbia exited the vicious circle of the early 2010s by attaining fiscal stability and dynamic economic growth rates. The government reflected its decision to preserve the results that have been achieved by focusing on stability. The government's intention is to generate both the financial resources and investor confidence that may be conducive to further economic growth.

Economic and social cohesion goals

As reflected in the ERP 2019–21, the fourth industrial revolution is an incentive for Serbia. Digitalisation and innovative activities are top of the country's strategic priorities. Since 2010, the ICT sector has been flourishing and it has incrementally contributed to GDP growth, with for example +3.8% gross value added in 2017 compared to 2016 and it has more than doubled exports. ICT has created employment; it also continued to expand in 2018–19 and is projected to grow further. While outsourcing from abroad represents an important portion of the current turnover, local capacity for new ICT products is strong too. The country strategy is looking to shift to a higher proportion of original ICT development, with a view to reduced dependence on external demand fluctuations, and to even stronger value generation by consolidating the top end of the ICT value chain.

Besides, the government is pursuing digitalisation as a relevant dimension of modernisation. The ICT sector is a national priority not only as a sector in isolation, but as a driver for change. Serbia envisions a contemporary society equipped with a digital infrastructure, relying on knowledge, skills and research. The plans encompass digitalisation in public administration, increasing e-delivery of public services, and ensuring ICT permeates all sectors of the economy.

Innovative economic activities are also being promoted through dedicated incentives. One relevant strand is the creative industry, with developments in media, design and fashion that are showing considerable potential. Other more traditional sectors are growing too, in particular tourism, whose catering component saw double-digit, year-on-year growth in 2017. As in other cases, innovation also means diversification of products and services.

The ETF assessment views the interplay between digitalisation, innovation and diversification as bringing opportunities and challenges in old and new sectors. This interplay may open new avenues and boost progress across sectors, and it seems this is where Serbia is placing its stakes in the international context. For the purpose of the ETF analysis, the digitalisation, innovation and diversification interplay is taken as a specific feature of Serbia's economy at this stage of its development. It will therefore be discussed further in Chapters 2 and 3, focusing on the implications for skills, knowledge and research.

Along with competitiveness, Serbia's vision embraces the commitment to social cohesion. Social inequalities are seen in the ERP 2019–21 as limiting economic growth, as well as overall social progress. Education reform, regional dispersion of foreign direct investments, employment incentives for young people and vulnerable groups, support for social entrepreneurship, gender budgeting and new increases in the minimum price of labour are among the measures set to ensure inclusive and distributed growth, as well as poverty reduction.

The labour market indicators continued to improve in 2018, pushed by increased economic activity, an intensified investment cycle, newly opened and expanded production plants, and active employment and self-employment measures. The most significant increase of employed persons was registered in the manufacturing industry, followed by administrative activities, construction, catering and trade. At the same time, the number of public sector employees reduced by almost 7 000, with the largest decreases registered in public enterprises and administration.

Against this positive labour market trend, the government recognised that unemployment is still relatively high: 12.8% among those aged 15 to 74 in 2018 as mentioned above. Some population groups are more affected than others, primarily young people, but also depending on place of residence, ethnicity and a few other factors. The government's plans demonstrate an understanding that strengthening social cohesion will require extra effort and policy focus.

2. HUMAN CAPITAL DEVELOPMENTS AND CHALLENGES

This chapter provides a compact overview of challenges that are intrinsic to the development and use of human capital, and which have emerged in countries' responses to questions in the NRF. The main challenges presented here were highlighted at the stakeholders' discussion, held in Belgrade on 22 May 2019. The discussion confirmed the relevance of the selected issues and further elaborated on their implications, notably with a view to Serbia's new Education Strategy 2030, which also includes VET.

Human capital development indicators

The indicators in Table 1 give a snapshot of the key characteristics of Serbia's human capital, in a form that make them comparable with other countries. The indicators point to a good level of human capital, while showing potential for fostering its continuous and lifelong development.

TABLE 1 – HUMAN CAPITAL DEVELOPMENT INDICATORS, SERBIA

	Year	Value
(1) Population structure (%)		
0–24	2015	29.3
25–64		54.4
65+		16.3
0–24	2025	27.5
25–64		52.4
65+		20.1
(2) Average years of schooling	2017	11.1
(3) Expected years of schooling	2017	14.6
(4) Learning-adjusted years of schooling	2017	11.1
(5) Adult literacy	2015	98.1
(6) Global Innovation Index rank (x/126)	2018	55
(7) Global Competitiveness Index rank (x/137)	2017–18	65
(8) Digital Readiness Index rank (x/118)	2018	44
(9) Occupational mismatch		
% of upper-secondary graduates working in low-skilled jobs (ISCO 9)	2016	7.1
% of tertiary graduates working in semi-skilled jobs (ISCO 4–9)		24.2

Sources: (1) UN Population Division, World Population Prospects – 2017 revision; (2) United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute for Statistics (UIS) database; (3) and (4) World Bank, Human Capital Index, 2018; (5) UNESCO UIS database; (6) World Economic Forum (WEF), The Global Innovation Index, 2018; (7) WEF, Global Competitiveness Index 4.0, 2018; (8) Cisco, Country Digital Readiness, 2018; (9) ETF, skills mismatch measurement in the ETF Partner Countries.

Note: ISCO = International Standard Classification of Occupations

Indicator 1 shows an ageing population trend, considering that the age group 65+ is the only one that will be increasing between 2015 and 2025.

Indicators 2 to 4 focus on the years of schooling, which appear to be below the expected or planned number of years on average. Indicator 5 reassures about adult literacy, which continues to be almost universal in Serbia.

Indicators 6 to 8 position the country in the global rankings of innovation, competitiveness and digital readiness. They are associated with human capital with regard to the current use of it, as opposed to the potential contribution that human capital may make to these sectors in future.

Indicator 9 points to an occupational mismatch, which also relates to human capital, specifically in the use, or in this case under-use, of human capital, notably in the context of the labour market and contribution to the economy at large.

Evidence of progress in human capital development

Serbia has had increasing participation in higher education over the last generation. Low educational attainment has decreased in parallel, painting a more positive picture overall. The historical characteristics of a predominant secondary education level have, however, been maintained. In fact, secondary education attainment remained almost stable from 2010 to 2017. Gendered statistics indicate that secondary education was attained by 62.2% of men and 51.8% of women, while more women than men attained higher education in 2017: 30.6% versus 20.5%.

The International Standard Classification of Education (ISCED) for low, medium and high attainment is often taken as a proxy for skills. With this understanding, we conclude from Table 2 that almost 84% of the active population aged 15 years or over in Serbia possesses a medium or high skill level. Close to 60% have a medium level of skills. The distribution of educational attainment by age was not available at the time this report was written.

TABLE 2 – EDUCATIONAL ATTAINMENT OF ACTIVE POPULATION AGED 15 TO 74, SERBIA 2010 TO 2018 (%)

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total									
LOW	21.2	20.4	19.7	19.8	17.7	16.5	17.2	16.8	16.2
MEDIUM	59.4	59.6	59.5	58.7	59.5	59.1	58.2	58.0	58.0
HIGH	19.3	19.9	20.8	21.5	22.8	24.4	24.6	25.2	25.9
Male									
LOW	20.9	20.3	19.5	19.3	17.7	16.9	17.0	16.6	16.3
MEDIUM	63.7	63.2	63.2	62.8	63.9	63.3	63.1	62.7	62.7
HIGH	15.4	16.5	17.2	17.9	18.4	19.7	19.9	20.7	21.0
Female									
LOW	21.6	20.6	19.9	20.4	17.7	16.0	17.4	17.0	16.0
MEDIUM	53.9	54.8	54.6	53.4	53.9	53.6	52.1	52.2	52.1
HIGH	24.5	24.6	25.6	26.2	28.5	30.4	30.5	30.8	31.9

Source: Eurostat

Years of schooling or educational attainment are also used as an estimate of the human capital stock, besides being considered a proxy for skills levels. The underlying assumption is that schooling forms an individual's own capital, comprising their own skills which they use in employment and for further development.

While viewing human capital as a stock serves for measurement purposes, human capital is not crystallised but develops through work and life activities. This applies by analogy to skills, as they are formed through education, training and experience and not on a one-off basis. Skills may decline or depreciate along with inactivity, adverse life and occupational circumstances, or factors like under-employment and informal employment, among others. Skills improvement results in human capital gain; skills that weaken entail a loss of human capital.

Taking the above measures and considerations into account, this report will now highlight issues and trends that relate to Serbia's human capital development in the short to medium term.

2.1 Demographic dynamics affect human capital

The opening of this chapter has pointed to the ageing profile of the population in Serbia. Population growth has been negative for both men and women (see Table 3). According to the national statistical office (SORS), the tendency is projected to continue in the foreseeable future.

TABLE 3 – TOTAL POPULATION IN SERBIA

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total	7 306 677	7 251 549b	7 216 649	7 181 505	7 146 759	7 114 393	7 076 372	7 040 272	7 001 444
Male	3 553 575	3 530 925b	3 514 420	3 497 008	3 479 863	3 464 399	3 446 258	3 429 027	3 410 592
Female	3 753 102	3 720 624b	3 702 229	3 684 497	3 666 896	3 649 994	3 630 114	3 611 245	3 590 852

Source: Eurostat

Note: b = break in time series

Table 4 focuses on 15- to 24-year-olds, highlighting that the young cohorts have shrunk significantly during the period under review. The table also shows a visible gender gap, with young men outnumbering young women. The TRP national report drew attention to the implications of the demographic dynamic for the country's human capital. It noted the speed of the transition towards a silver population (i.e. those aged 65+), considering that the proportion of the 15–24 age group was significantly lower if compared to the 15–74 population than if compared to the 15–64 age group.

TABLE 4 – POPULATION AGED 15 TO 24 RELATIVE TO POPULATION AGED 15 TO 74, IN SERBIA (%)

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total	15.0	14.9	14.4	13.9	14.4	14.1	13.9	13.7	13.5
Male	15.9	15.9	15.4	15.0	15.0	14.8	14.6	14.3	14.2
Female	14.2	13.9	13.4	12.9	13.8	13.5	13.3	13.1	12.9

Source: ETF calculations based on Eurostat data

The 40- to 64-year-olds who completed the formal education cycle at least 15 years ago will increasingly be represented in the active population of Serbia. The questions that an ageing population pose in terms of human capital and use of it in the labour market directly connect with the skills updating issue, and with the reskilling and upskilling opportunities that are needed to keep pace with the changing economy.

In other words, an ageing active population may bring ageing of skills. Since skills may deteriorate or become obsolete rather than developing over time, access to learning is critical to mitigate the potential disadvantages, and turn ageing into an opportunity for human capital gains.

2.2 Transformations in the real economy modify demand patterns

The changes ongoing in the real economy have an influence on the labour market dynamics, including the occupational trends and skills demand. Here we look at the data that documents changes in the real economy, and appraise how these relate to human capital, its development and use. Ultimately, we ought to compare the direction of the real economy changes with the vision and goals that the government of Serbia set in the ERP 2019–21 (briefly summarised in Chapter 1).

The service sector has become a strong driver for Serbia's economic growth. In 2017, services accounted for more than half of the actual economic activity increase of the year. The most important positive change was observed in trade, which increased by 5.2%, and in the ICT sector, which created 3.8% more gross value added than in the same period of the previous year.

The respective contribution of agriculture, industry and services production to growth has remained relatively stable since 2015 (see Table 5).

TABLE 5 – GROSS VALUE ADDED BY BROAD ECONOMIC SECTORS (%)

	2015	2016	2017	2018
Agriculture	6.7	6.8	6.0	6.2
Industry	25.7	25.7	26.1	25.9
Services	50.9	50.4	50.9	51.0
Other	16.7	17.1	17.0	16.9

Source: World Bank, World Development Indicators database

Industry and medium-value services still represent the backbone of the Serbian economy. Labour Force Survey (LFS) data of 2017 reported an increase of people employed as plant and machine operators, assemblers and professionals. The manufacturing sector recorded the highest increase in 2017, against a backdrop of employment increases in most economic sectors (ETF, 2019a).

Changes have nonetheless occurred, albeit to a moderate extent, as noted by the TRP national report. Economic restructuring and growth of new sectors, such as ICT, have affected the number and share of employed people in different activities. In 2017, there were more registered job vacancies in services, as a sum of all the activities in services, than all of the job vacancies in manufacturing activities. Trade, which correlates with different economic activities, stood out for the high number of job vacancies. Next was construction, followed by accommodation and food services activities. Agriculture has experienced employment destruction, notably in occupations like skilled agricultural, forestry and fisheries workers (ETF, 2019a).

The rates in Table 6 provide a synthetic picture of the evolving share of employment across broad sectors, since 2011. This and additional statistical information is published in the key indicators on education, skills and employment accessible on the ETF website (ETF, 2019b).

TABLE 6 – EMPLOYMENT BY BROAD ECONOMIC SECTORS (%)

	2011	2012	2013	2014	2015	2016	2017	2018
Agriculture	20.6	20.2	20.2	19.1b	18.9	18.1	16.8	15.5
Industry	27.0	26.7	26.7	24.9b	24.7	24.7	25.6	27.2
Services	52.4	53.1	53.1	55.9b	56.4	57.2	57.6	57.3

Source: ETF, 2019b

Note: b = break in time series

These shifts registered by labour market and economic data delineate a transition in the real economy. Together with services reinforcing its lead role as a growth contributor, manufacturing has been developing in the last few years through investments and opening of new plants, with beneficial effects on employment. At the same time, the structure of manufacturing is still characterised by low-added value products and upstream products. In agriculture, productivity has been increasing although remaining below its potential; consequently, its contribution to growth is rather stable.

The EU accession process plays a role in the economic transition, by means of pull and push factors. The Digital Agenda, the Common Agricultural Policy, the path to a single market and the consumer protection policy all come with a combination of normative benchmarks and supporting actions, including technical and financial support. These are not the only drivers for the transition in the real

economy, but it would be a mistake to understate the role of these EU-driven incentives, and the effects that together with national incentives they have on the real economy.

Chapter 3 will further discuss the consequences of the real economy change, and what these changes mean for the skills demands in the labour market.

2.3 Disparities in the development and use of human capital

The Sustainable Development Goal on education (SDG4) sets out to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, by the year 2030. The SDG4 establishes an agenda that challenges all countries in all continents. Starting points and achievements obviously vary; however, so far no country can claim success against all the targets. Equitable and accessible opportunities for quality learning is the area where even the richest countries have some road to travel towards meeting the goal (Ward, 2019).

Serbia is not an exception to the rule. To appreciate equity and inclusiveness of quality education and lifelong learning opportunities, we should look into data related to both education and the labour market. Within overall positive educational attainment and relatively high skills levels, indicators such as completion rates bring to light areas of underachievement that call for the attention of decision-makers.

Table 7 assembles selected statistics on education completion, early school leaving, participation, low attainment, and vulnerable employment in Serbia. The data highlights limited development and use of human capital for young and adult population groups of significant size, which expose them to actual or potential risks of exclusion.

TABLE 7 – VULNERABILITY IN EDUCATION AND EMPLOYMENT, SELECTED INDICATORS, SERBIA

	Year	Value (%)	
(1) Completion rate in secondary vocational education by programme 3-year programme 4-year programme	2016/17	77.6 86.7	
	2010 2018	8.2 6.8	
(2) Early school leavers – aged 18–24	ns	68.2 22.0 15.0	
	(3) Participation in secondary education of children from poorest households Roma households – total Roma households – girls	2018	16.2 25.3
		2016 2017 2018	28.2 27.2 24.6
(4) Low educational attainment of active population – aged 15+ total population – aged 15+			
(5) Incidence of vulnerable employment – aged 15+, total			

Sources: (1) SORS; (2) Eurostat; (3) UNICEF, quoted by the TRP national report; (4) Eurostat; (5) ETF calculations based on Eurostat data.

ns: not specified

Disparities in access to education and the labour market come to the surface when data is broken down by age and gender, socio-economic status, ethnicity and geographical location. This level of

granularity is, however, not always available or not on a regular basis, meaning that the assessment of risk areas is at times complex.

The 2019 Riga policy reporting questionnaire contained references to inequity associated with Serbia's existing disparities, although with no great details (GoS, 2019b). The TRP national report noted constraints to educational attainment are greater in rural areas. These include fewer schools compared to cities and, as regards VET, a very limited offer. Dropout rates are particularly high in three-year vocational education, most often attended by students from a vulnerable background (GoS, 2019a).

Vulnerability in education is often associated with subsequent vulnerable employment. In addition to vulnerable employment, the issue of non-participation in the labour market is relatively important in Serbia, demonstrated by high rates of inactivity, especially among women. In summary, factors such as geography, ethnicity, income and gender are to be considered to appreciate the disparities in development and use of human capital.

3. ASSESSMENT OF KEY ISSUES AND POLICY RESPONSES

The previous chapter outlined the developments and challenges of human capital in Serbia, which are based on the TRP national report and will frame the ETF assessment presented in this chapter. Although the broad challenges may be comparable to those of other economies in the region and beyond, the findings are specific to Serbia's data and context, as follows.

We found that, first, the demographic trends are structural. They show that the active population is increasingly characterised by those aged 40 to 64, who completed their cycle of formal education 15 or more years ago.

Second, the economy is transforming with a move towards services, from the perspective of both the sector contribution to national GDP and the number of vacancies that appear in the labour market.

Third, the areas of underachievement in educational attainment and access to labour market largely relate to existing societal disparities: age and gender, geographic location, ethnicity, and household income.

In this chapter, we illustrate with more depth how these findings correlate to human capital. We focus the assessment on selected issues and the related policy responses, namely how the issues have been addressed by the existing human capital development policy framework, albeit with specific attention to VET policies. The discussion will demonstrate that the issues are interdependent to some extent. The challenges are mutually reinforcing, and the reciprocal feedback effects are to be considered in policy implementation. Hence, the recommendations also reflect such an interdependence.

3.1 Those aged 40 to 64 outnumber youths in the active population

An ageing active population has already been identified as a relevant issue for human capital and the use of it. An ageing population may entail ageing of skills, with at least three aspects involved, as follows.

1. Employment helps skills maintenance or development: studies show that informal learning is by far the most frequent way to keep one's skills updated, and this takes place mostly on the job. Informal learning goes both ways, between older and younger employees. Shrinking proportions of young people in a workplace may have the effect of a reduced intake of newer skills, and of reduced transfer of these newer skills across generations.
2. Employment enables non-formal learning: research has shown that people in employment have much greater chances to access planned learning courses compared to their unemployed peers. The TRP national report and recent ETF analyses (e.g. ETF, 2019a) document that this applies to Serbia too.
3. Employment may not always favour reskilling and upskilling: conclusions from the literature point to in-company training being harder to access for low-skilled employees, on the one hand, and to hiring/firing human resources practice as opposed to reskilling and upskilling in periods of restructuring or economic lows, on the other hand. Depending on the business cycle stage, companies take decisions on investing or divesting in human capital. The attitude is often pro-cyclical, i.e. companies tend to invest in research and development and staff training when the

business cycle is positive, but in adverse periods, companies may opt for downsizing rather than retraining.

A specific issue for Serbia relates to the emigration of highly qualified young people. Migration estimates vary depending on the source from 15 000 to 30 000 individuals who leave the country annually, the majority of them young and highly qualified (GoS, 2019a). Insufficiently attractive work conditions, in particular salaries, were among the reasons cited by engineering and computer science graduates (ETF, 2019a). VET graduates that emigrate include drivers, welders and electricians. While the growing remittance inflow is beneficial, it is largely insufficient to compensate the loss caused by the brain drain, according to the World Bank and Organisation for Economic Co-operation and Development (OECD) data cited by the TRP national report (GoS, 2019a).

Participation in continuing training

Legislation and dedicated programmes on adult education and training in Serbia have the mission to offer opportunities for education and lifelong learning, in order to respond to labour market and individual needs for new knowledge and skills. The goals are labour market-oriented, such as to improve employment opportunities and facilitate professional mobility and flexibility, and socially-oriented, including to reduce poverty, increase inclusion, and develop democracy and tolerance (GoS, 2018a).

According to the LFS of 2017, 4.4% of Serbian citizens of working age participated in non-formal learning, whereas the government commitment for 2020 is a participation rate in continuing learning of 7%. The EU benchmark for lifelong learning participation is to reach 15% or more by 2020.

The Adult Education Survey (AES) conducted in Serbia by Eurostat in 2016, however, gives a better picture of participation in education and training, as a selection of indicators in Table 8 show. According to this survey, non-formal learning was a reality for 18.2% of the working-age population in 2016. The discrepancy can be attributed to the different methodology used in the two surveys. Hereafter, we build on the AES, because its methodology is considered more robust and accurate than the LFS. Moreover, the AES results provide additional statistical information that is useful to understand the characteristics of adult participation in various forms of education and training.

The access to learning opportunities is uneven, and varies depending on people's key characteristics. Essentially, employment status, skills level and age influence the likelihood of adult participation in learning, as follows. Those aged 55 to 64 had little access to lifelong learning, with only 7.3% of them participating in training. Only 0.5% of low-skilled people were in training according to the data. Among unemployed people, only 9.5% participated in learning opportunities in 2016. It is worth noting that the LFS, though recording a lower participation rate overall, converged on the same conclusion of unequal access to adult learning activities.

Learning was job-related for 14.1% of the respondents to the AES, which could be a proxy for Continuing Vocational Training (CVT). Last but not least, more than 90% of the survey respondents confirmed they had been involved in informal learning. This is in line with international findings, whereby informal learning remains the most popular learning modality among adults.

In Serbia and other countries alike, adults' access to non-formal, but especially informal, learning is undocumented (ETF, 2013). As a consequence, additional analyses are usually needed to capture information about the learning content and outcomes. These analyses build on qualitative methodologies, where the main informants are learners, providers, employers and employment

services. However, they tend to be carried out and there are concerns about whether the results are then used to inform new CVT design and implementation.

TABLE 8 – MAIN INDICATORS IN THE ADULT EDUCATION SURVEY (AES) IN SERBIA, COMPARISON OF 2011 AND 2016 (%)

Main indicator	2011 AES	2016 AES
Participation rate in formal education, aged 25–64 – total	4.0	3.0
Participation rate in formal education, aged 25–64 – women	3.4	3.5
Participation rate in formal education, aged 25–64 – men	4.6	2.4
Participation rate in non-formal education, aged 25–64 – total	13.6	18.2
Participation rate in non-formal education, aged 25–64 – women	13.9	19.4
Participation rate in non-formal education, aged 25–64 – men	13.2	17.0
Participation rate in job-related non-formal education and training, aged 25–64 – total	10.5	14.1b
Participation rate in informal learning, aged 25–64 – total	n.a.	90.5

Source: Eurostat: Adult Education Survey

Notes: n.a. = not available; b = break in time series

Government response

The government of Serbia has deployed multiple measures to favour adult learning. The TRP national report states that between 200 and 250 VET schools are providers of adult education. They offer requalification and additional qualification programmes, and courses of flexible duration from three to 12 months. VET schools also provide part-time secondary education for adults. Training is provided through the network of local employment services. Different providers at secondary and tertiary level are involved to meet the training needs of the regulated professions (GoS, 2019a).

The Law on Adult Education 2013 and the Law on National Qualifications Framework (NQF) 2018 award greater flexibility for skills development of adults. The legal framework for more flexible ways to acquire competences and qualifications is a relevant pre-condition for open and equitable lifelong learning. There are two key mechanisms to realise such flexibility: i) non-formal learning as a recognised pathway towards formal qualifications, obtained for example by giving accreditation to non-formal courses; and ii) the organised process of validating competences that people have acquired through non-formal and informal learning.

An overview of strategic orientations of CVT is currently missing. As seen earlier in Table 2, the distribution of educational attainment shows that 74% of the active population has a medium or low level of education, 16% and 58% respectively. As stated earlier, this is often viewed as mirroring people's skills level. For almost three-quarters of the active population, therefore, continuing training encompassing technical-vocational skills together with other competences would be relevant.

This suggests that participation in adult education and training according to the indicators in Table 8 remains below its potential. It moreover indicates that the CVT is fragmented whereas a coordinated strategy would be beneficial. Serbia has developed such a strategic framework and priorities for initial vocational education, proving useful for the subsequent policy design and implementation. The

strategic framework and priorities helped create a common understanding among the actors in the national system, and it offered a basis for negotiating external aid in support of these priorities. CVT would benefit from a strategy in a similar manner. This point will be further reviewed in sections 3.2 and 3.3.

It must be acknowledged that the labour market information system is well structured and of good quality in Serbia. Estimates of labour market needs are used to plan adult education programmes for attendees to acquire professional competences or qualifications. These estimates are based principally on forecasts of employers' needs, obtained through employment surveys and analysis of vacancies. The national employment service employers' survey results feed into the planning of the active labour market measures, which contribute to addressing the skills mismatches and allow estimates of occupational needs for the year ahead (GoS, 2019a). The courses are also targeted depending on unemployed people's characteristics, in order to foster their current skills profile. This is a type of provision aimed at registered unemployed people, thus responding to short-term needs in the labour market.

The labour market information system has to improve the application of the research findings to the anticipation of future skills, and the design of policies and programmes for the future. There is an issue of governance too, in that the research activities and use of the findings for the said purpose tend to be discontinued (GoS, 2019a; ETF, 2017a).

Initiatives are diversified though, and address other people besides unemployed people. In the last few years, the government has designed and delivered short-term courses to meet the growing demand in industries like ICT. Started on a pilot basis in 2017, these courses are being systematised to be available regularly in different geographical areas. The purpose of the initiative is to upskill or strengthen people's qualifications to support ICT production and fast expansion of services. A shortage of skilled workforce is representing a major impediment to sustained development in ICT.

The private sector is active in providing continuing training to employees. Companies in the ICT sector are investors in human capital, actively provide training and retraining, and hunt for people with the relevant education and training profiles in the labour market (ETF, 2017b). Companies in other sectors invest in skills development too, to varying degrees depending on opportunity cost, expected return and, as mentioned above, the employees' profiles.

Broadly speaking, CVT covers short- and medium-term skills needs. In most cases, it is initiated by the relevant companies, delivered in non-formal modes and remains largely undocumented. The participation rate in job-related non-formal learning activities was 14.1% in 2016, according to the AES survey results reported in Table 8.

ETF recommendations

The following recommendations relate to public and private actors alike, considering the prime interest of both initial and continuing learning and skills development for the economy and the society as a whole. The Ministry of Education, Science and Technological Development (MoESTD) should lead from among the government actors, while other ministries' and agencies' contributions will be crucial to cater for the entire lifelong learning spectrum. Moreover, non-traditional actors who can bring informed views on people's non-formal and informal learning should be part of the discussion on the new Serbia Education Strategy.

1. Anchor adult education and CVT in the lifelong learning strategy (the new Serbia Education Strategy 2030)

Placing CVT prominently in the Education Strategy will be crucial, along with initial VET. The current adult learning opportunities do not seem to denote a CVT strategy that is tuned with Serbia's ambitious goals. Most of these laudable government and company initiatives on adult learning aim at meeting short-term or in better cases medium-term needs of companies. It is not always clear whether skills updating, upskilling or reskilling is envisaged, or supply iteration in subsequent stages is planned for.

Lifelong learning is a conceptual and policy approach that values formal, non-formal and informal learning on a continuous basis. Within a tradition of education policies that focus on initial education, lifelong learning is a disruptive concept. It is a challenge for policymakers to attribute the same weight to initial education and any other form of learning; however, lifelong learning policies can only unfold with this conceptual shift. In the EU context, the most recent case of consistent lifelong learning oriented policy reform is in Finland; otherwise, not many countries have so far been proven as able to innovate in this respect.

At the time of writing this report, it was known that the new Education Strategy will address all the policy sides and segments in the sector. The recommendation is particularly relevant for the technical, professional and skills-oriented type of learning covered by the strategy.

2. Upskilling and reskilling has to match people's educational attainment

The actions that will accompany the new Education Strategy 2030 implementation shall be designed with consideration of all types of learning needs. With the ageing population and economy transformation, the needs are short and long term in nature; the former may be known, whereas the latter are uncertain, thus implying additional difficulty in capturing them. The adult, not necessarily job-related, education needs will remain important; there are instances where adult education should precede CVT, to bring people to a level that enables access to training and retraining in technical-vocational fields.

3. Data on adult education and CVT to monitor participation and evaluate effectiveness

The national LFS and EU AES are fruitful and regular sources of information about participation in learning activities. The statistics do not coincide, due to methodological reasons, bringing about the issue of a possible information gap that needs to be addressed.

The available data on public financing of continuing training is related to the active labour market programmes. No other data seemed available or accessible when this report was written. Private financing of CVT is scarcely documented; sporadic surveys divulge information on investment by economic sectors or companies for employee training, in a given year or period.

What appears clear is that no mechanisms for smooth funding of private sector employees are in place, including training funds and/or fiscal instruments.

3.2 Human capital for a mix of continuity and transformation

We discuss here the interplay between digitalisation, innovation and diversification referred to in Chapter 1. Serbia's strategy builds on a series of incentives to entice national and foreign investments in the sectors that show best opportunities. In the government's desirable scenario, the investments should drive the development and use of human capital towards innovation-intensive sectors. Uncertainty plays its role though: like in any development model, not all outcomes are predictable.

Variables include the speed and amount of investments, the level of technology absorption, and the public administration's capacity to modernise.

Notwithstanding the uncertainty about the final outcomes, changes in the real economy are ongoing and having effects on the labour market, specifically on job continuity, transformation and destruction, and on the labour market demands for skills. We will briefly discuss this impact and then move on to VET as a sizeable component of human capital development.

Changes in the economy change the demand for skills

First, there is a quantitative impact shown by the variations in vacancies that depend on labour demand in each economic activity. In 2017, vacancies increased in trade-related activities while they decreased in agriculture, forestry and fishery. The changing demands pose the challenge of adjusting the education and training offer to ensure graduate employability, including discontinuing routes that no longer lead to employment. In the short term this is never easy, and tensions typically materialise between the short-term demands and the long-term solutions. Experiences of skills demand changes in other countries have led to reskilling through dedicated training, and validation of non-formal and informal learning to facilitate mobility between sectors. These examples of adopted measures may serve as a source of policy learning.

The second element is the qualitative impact on skills demand. Private sector companies show preference for hiring people with a high level of skills even for jobs that would in principle require medium-level skills. The employers' choice demonstrates appreciation for the broad skill range that tertiary graduates often possess, including key competences. On the tertiary graduates' part, the high youth unemployment pressurises them to accept job offers below their expectations. These two sides of qualitative impact reinforce the skills mismatch in the Serbian labour market. As assessed in the TRP national report (GoS, 2019a) and according to the ETF's measurement (ETF, 2019a), this type of mismatch tends to be rather pronounced.

A third type of impact can be seen in the use of human capital. The different pace of change among companies seems to imply a different use of people's skills, depending on the mix of tradition and innovation that the businesses implement. Assuming a linear continuum in the real economy transformation – though recognising it is a simplified assumption – we may compare the two ends in the continuum as follows.

At one end of the continuum, we find companies that absorb new technology but remain loyal to their traditional business model. Often these companies do not reach their potential for development. Even when they hire highly qualified young people, they may not get the most out of them due to their outdated business model. At the opposite end, we find innovative companies inclined to embrace new business models. They find obstacles in Serbia, including obstacles to competition and high skills shortages, for example in the Science, Technology, Engineering and Mathematics (STEM) fields (Ivanovic, 2019). These diverse situations and constraints to transformation build a negative dynamic in which limited expansion of the innovative activities and limited use of the country's human capital risk reinforcing each other.

The moderate pace of innovation in business is, therefore, another cause of skills mismatch in the Serbian labour market. Said differently, the coexistence of tradition and innovation in the economy leads to suboptimal use of human capital. Companies that continue their established business model

do not use their employees' skills sufficiently. Companies that use more high-level skills are confronted with these skills shortages.

In addition to skills shortages, other obstacles¹ seem to restrain companies that might further grow and if so would hire and use more skilled people. Otherwise, highly skilled people would find employment in knowledge-intensive jobs, and secondary education graduates would not suffer competition for the medium-level jobs. The assessment in this section has been based on the available data and it is supported by the arguments in the government's ERP 2019–21 (GoS, 2018a), the European Commission assessment on the ERP 2019–21 (European Commission, 2019a), the OECD policy outlook on South East Europe's competitiveness (OECD, 2018a), and the Public Policy Research Centre's analysis of the knowledge economy in Serbia (Ivanovic, 2019).

The indispensable contribution of VET to human capital development

Students in VET programmes in 2017 represented almost three-quarters of the total secondary school population of Serbia. The enrolment rate in the school year 2017/18 was 55.5%, with a small difference between girls and boys (see Figure 1). While remaining consistently high, enrolment in VET programmes is decreasing by about 2% yearly in absolute numbers, and slowly relative to general education (ETF, 2019b). The school year 2018/19 may have represented an exception, since it recorded the same level of attendance as the previous year in VET programmes, according to SORS data cited by the TRP national report. In 2018, there were 510 secondary schools (460 public and 50 private), of which 111 were gymnasiums, 310 VET schools, 40 art schools, 45 mixed gymnasium and VET, and four mixed VET and art schools. Moreover, there were 43 public schools/classes for disabled students (GoS, 2019a).

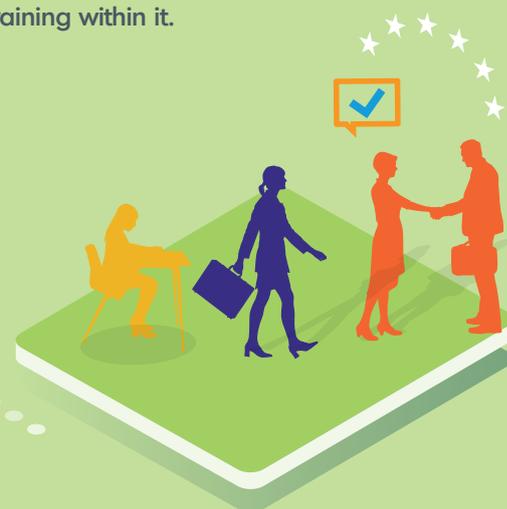
¹ Other obstacles to company growth in Serbia include access to financing including venture capital and insufficient simplification in the public administration, but they are not discussed in this report.



1. Improve lifelong learning

Make the new Serbia Education Strategy 2030 a lifelong learning strategy.

Anchor adult education and continuing vocational training within it.



2. Optimise upskilling and reskilling

1 Ensure that upskilling and reskilling programmes match the educational attainment of students.

Prepare a targeted action plan to achieve this.



3. Make better use of monitoring and evaluation

➔ Collect data on adult education and continuing training

Use the data to monitor participation and evaluate effectiveness



4. Promote attractive perspectives



Ensure attractive perspectives for learners, particularly in post-secondary vocational education and training as well as short-term higher professional level studies.



6. Guarantee access to and quality learning for all

Match different needs by making suitable course available

Mitigate vulnerability through strategic support.

5. Establish better links between vocational training and the labour market

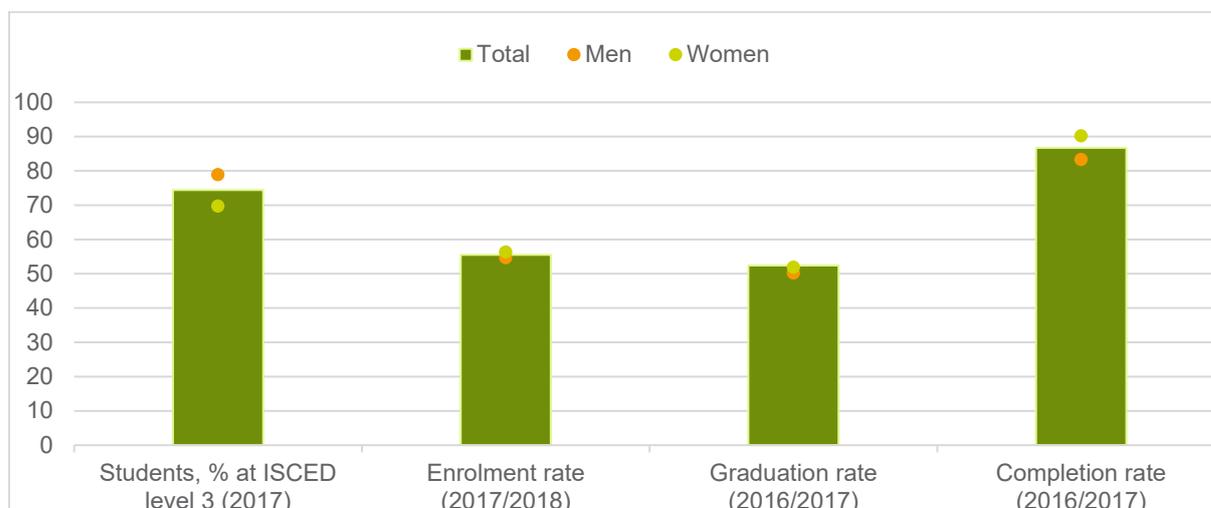


Assess trends at sector and sub-sector level to anticipate how employment will evolve

Accomplish all the targets set out in the ongoing reforms



FIGURE 1 – INITIAL VET IN SERBIA 2017 (%)



Source: ETF data collection

The very fact that VET students represent the majority of secondary students gives the VET system a key position in the formation and development of human capital in Serbia. If we also consider the active population's educational attainment (Table 2), we conclude that the VET graduates form the majority in the labour market. Notably, they are the largest portion of employed people when looking at employment by broad occupations data (see Table 9).

TABLE 9 – EMPLOYMENT BY BROAD INTERNATIONAL STANDARD CLASSIFICATION OF OCCUPATIONS (ISCO) 08 (%)

	2010	2013	2014	2015	2016	2017	2018
Total							
Low	8.4	8.3	8.0	8.9	8.7	8.8	9.1
Medium	59.8	63.0	61.7	61.5	62.7	62.6	62.0
High	31.3	28.1	29.6	28.9	27.9	28.0	28.4
Male							
Low	7.0	6.7	6.9	7.7	7.7	7.9	8.1
Medium	66.8	69.0	67.4	67.2	68.2	67.8	67.0
High	25.5	23.3	24.5	23.8	23.0	23.3	24.0
Female							
Low	10.3	10.4	9.5	10.5	9.9	9.9	10.3
Medium	50.5	54.8	54.2	53.9	55.7	56.1	55.5
High	39.2	34.7	36.2	35.6	34.3	33.9	34.2

Source: Eurostat

Note: LOW: ISCO-08 group 9; MEDIUM: ISCO-08 groups 4–8; HIGH: ISCO groups 1–3

The mix of continuity and innovation in the economy as a whole and inside individual companies, therefore, directly concerns young people in vocational education. It influences their choices as students and as future employees. From a human capital development perspective, the question is

whether they are duly equipped to obtain and maintain a quality job throughout their active lives, given the change and uncertain situation.

Data for VET programmes at the beginning of the 2017/18 school year shows the students' preference for economics, law and administration (13.3%), electrical engineering (10.9%), health and social welfare (9.6%), machinery and metal processing (8.7%) and trade, catering and tourism (8.1%), according to SORS data (cited by GoS, 2019a and ETF, 2019a).

The most popular VET programmes, however, seem at odds with the job openings. The shortages in trade activities and in manufacturing were mentioned earlier, but there are other areas of high demand. The national classification of job vacancies reported rather high shortage in health and education, and for metal processing, clothing production, civil engineers, and road and transport occupations. There were not enough managers, professionals and clerical support workers, as indicated by undereducation in these occupations. Where staff turnover is particularly rapid such as in ICT, the number of job vacancies is not always captured by the statistics.

Many VET graduates opt for an extra level of qualification, and many enrol in university education in large part due to insufficient post-secondary non-tertiary education options. The scarcity of post-secondary education options is an additional source of mismatch, while labour market information points at a demand for this education level in various sectors. One of the employers' motivations to hire tertiary graduates is their broad competence, including key competences. However, these could be formed through renovated learning outcomes at secondary and post-secondary level. Evidence is provided by employers' surveys (e.g. ETF, 2017b), which highlight that higher education graduates are performing tasks and duties requiring skills that can be formed by technical education. One can thus conclude that post-secondary VET could cater for these skills demands.

The specific yet relevant example is ICT education and training, to which the government is paying specific attention at tertiary level and through dedicated short-term training courses, as mentioned in Chapter 2. Furthermore, in compulsory school and general secondary education, teachers are being trained with a view to introduce coding as a key competence. But secondary VET was not included in this process at the time of writing this report, mainly due to scarcity of resources. This appeared odd, having highlighted the critical role of VET for the present and future human capital. VET graduates will in future perform ICT-related tasks in a wide variety of occupations, surely more than the previous generation. Last but not least, secondary VET teachers are often engaged in continuing VET for those in employment or unemployment.

Short-term demands and long-term solutions

Analyses of skills needs at sectoral level are close enough to the real economy, and may offer insight into how changes in the economy interact with the development and use of human capital. Any skills anticipation system will address the needs of those in the labour market. In parallel, the system will supply information to inactive people too, giving signals on how they might be able to maintain or update their skills along with the changes and enter the labour market.

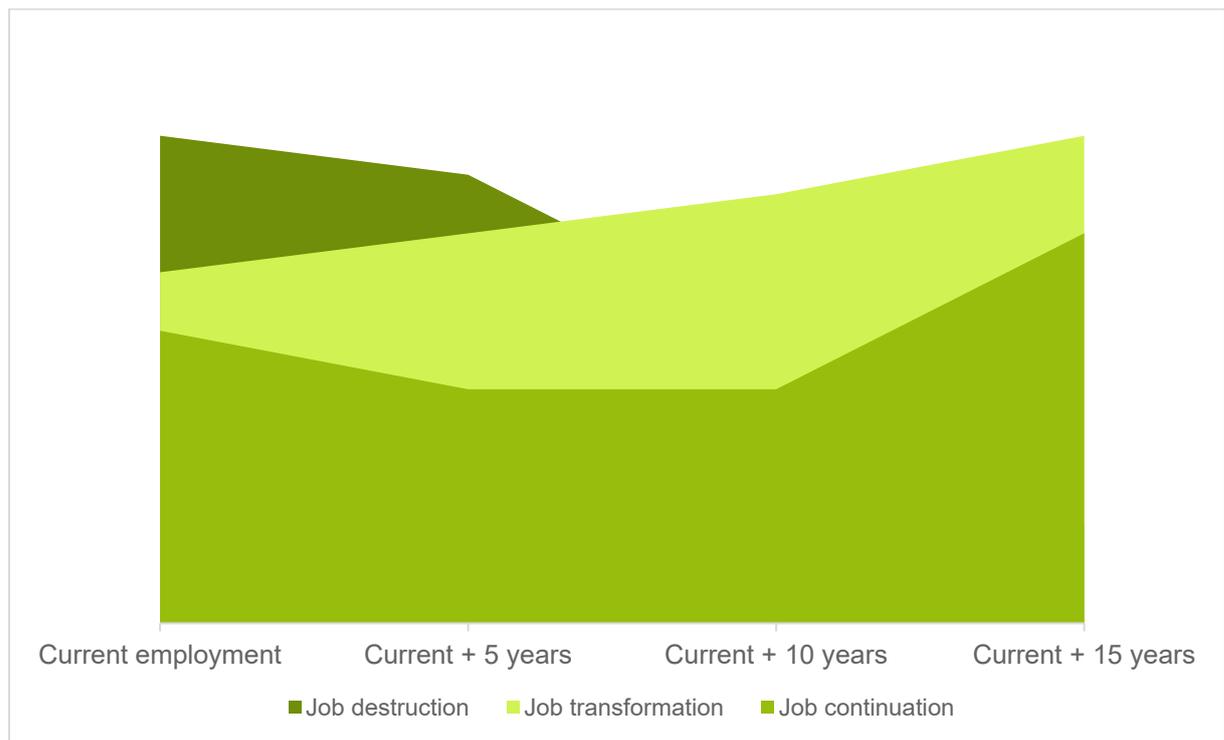
Surveys that analyse vacancies highlight that companies demand wide rather than narrow skills, i.e. comprising both technical and key competences. Employers in Serbia have voiced that they view the qualitative adjustment of education and training in a twofold direction: one towards broad learning outcomes, the other the adjustment between the qualifications and the actual occupations, where both improvements are equally important. The case of the ICT sector is again particularly illustrative. Technical skills are in demand for the manufacturing and service component of the ICT sector; digital

skills should be taught in all education and training streams as future workers will constantly interact with ICT in their job in any sector.

Figure 2 depicts a model for planning analyses at sector level, for a fictional sector. The World Development Report (World Bank, 2019) suggests exploring the impact of technological progress on employment, in each sector. Figure 2 is an author's elaboration, which adds to the model the time factor, which is key for planners of initial and continuing training in the context of lifelong learning policies.

Sectors are a crucial level to place these analyses, to attempt a quantification of jobs that are expected to continue, jobs that will transform due to the technology embedded in products and processes, and jobs that are going to disappear. The definition of sector taken by these analyses is important too, and it will clearly require attention at the methodology design stage. In the context of smart specialisation strategies for Serbia, for example, a suitable specialisation in a region may emerge from synergy between two sectors usually considered independent (European Commission, 2017). In fact, it is the methodology of sector skills needs analyses that will define sector boundaries, before starting to design the analysis tools.

FIGURE 2 – JOB CONTINUATION, TRANSFORMATION OR DESTRUCTION – FICTIONAL SECTOR FOR ILLUSTRATION PURPOSES



Source: author's elaboration based on the World Bank (2019).

The example is for illustration purposes only. At the time of writing this report, data on distribution of employed people by sector and by age was not available or easily accessible. This data can be retrieved in Serbia through the register of enterprises and through the national employment data; it would therefore be feasible to build the model based on country data.

It is worth noting that the methodology of assessing the potential versus the current situation underpins the World Bank's Human Capital Index. This index estimates how much economic

productivity a country loses by underinvesting in people. It builds on the comparison between the measured human capital and the maximum human capital that a country could attain if all conditions of high-quality education and health were fulfilled for all children (World Bank, 2018).

Government response

Serbia has deployed substantive reforms to promote the achievements of the long-term goals of an innovative, competitive and equitable society. Here we assess whether the human capital policies, with a focus on VET, are fit for the identified challenges. These challenges are: the transformation of the economy and related changes in skills demands; the size of VET as the backbone of human capital, hence the strong impact of the changing demands; and the significance of the (sub)sector level and the timeframe to anticipate occupational changes, requiring a more granular skills intelligence system.

In recent years, the attention to VET within the education reforms in Serbia has been greater than in the past, which has made the system better able to react by becoming more open to the changes. Education quality has been made central to strategies and plans in the entire education reform process. This has led to verifiable results, which the TRP national report highlights along with some delays in implementation.

The enhanced focus on skills and competences has turned work-based learning and entrepreneurial education into priorities. The Law on Dual Education was adopted in 2017, and the entrepreneurial key competence was introduced in school curricula. The TRP national report provided ample evidence in support of this important progress. With regard to work-based learning, in the school year 2018/19, 84 VET schools, or 23% of the total, activated dual education, implementing it in 32 VET profiles (GoS, 2019a).

Serbia passed the Law on NQF in 2018. Modernisation of the educational profile content and structure has continued, through the implementation of revisions based on the qualification standards developed in cooperation with company representatives. The proportion of practical learning in the curriculum has been increased, with the practical learning to take place in school laboratories and workshops, but also in companies. By 2019, 85 curricula based on the new methodology had been developed and adopted, accounting for one-third of all active profiles. In 2018/19, almost two-thirds of new enrolments in VET related to the modernised profiles. Provision of the profiles with the least demand has been decreased (GoS, 2019a).

In 2019, 12 Sector Councils (SCs) were established as expert bodies, though the first meetings were not organised until the end of the year. The SCs may act as an interface between the world of work and education, but their advisory role is limiting. They are mandated to harmonise the labour market demands and the NQF, by performing functions such as assessing the demand for new qualifications, reviewing and updating the existing ones, drafting qualification standards, and defining which qualifications can be acquired through non-formal and informal learning.

At present, the SCs only partially cover the prominent sector of the Serbian economy. Some of these SCs no longer correspond to the boundaries and the subsectors that presently define the sector. The link with the occupational classifier is dysfunctional due to the obsolescence of the latter, meaning that the occupational profiles, the classification into sectors and the qualifications in the framework are somehow disconnected.

For the SCs' work to be beneficial, important conditions include representation of significant sectors, expertise development of SC members, and well-designed information flows between the sectors and their respective SC. Under these conditions and with due support, the SCs could generate the type of granular information that is currently missing or sporadic, and when existing is scarcely communicated (ETF, 2017c).

To summarise, the VET system is going through a phase of reforms, some of which have yielded visible results while others have yet to show their effectiveness. Throughout this transition, the systemic dimension of the changes has not yet been achieved. As the adjustments are not fully deployed, the tension between the short-term demands and long-term solutions remains.

VET is part of a skills system that, as said above, is influenced by transformations that happen on a broader scale, which is one of the identified challenges. The following paragraphs briefly outline how the government action has unfolded.

In line with the goals stated in the ERP 2019–21, the government is tackling the obstacles met by high-potential sectors, and aims for the alignment of industrial, education and research and development policies. The government measures aim at better conditions for innovation and economic transformation, and to create new jobs and skills demands, including at vocational level. In its Strategy for Developing the Information Technology Industry 2017–2020, the government committed to knowledge and skills development. With booming exports, the ICT industry is facing severe skills shortages, mainly but not only at the high level. The ERP pointed to ICT as a vehicle for innovation and job creation in sectors such as tourism and e-commerce, provided skills are properly developed (GoS, 2018a).

Being part of the EU Digital Agenda contributes to realising this strategy and yields results, among which is the roaming agreement between the six Western Balkans economies signed in 2019. Serbia has aligned its e-business and e-commerce framework to the EU e-Commerce Directive (2000/31/EC), and taken steps to raise awareness among small and medium-sized enterprises (SMEs). At the public administration level, Serbia is acting on simplification, on the one hand, and on public policy effectiveness, on the other. One example was the e-inspectorate, created with a view to reducing informality in the labour market.

On e-skilling, Serbia has updated its key competency framework but the digital competence has not yet been introduced. This could have been overlooked due to scarce policy coordination, considering the current laudable undertaking on digital literacy in compulsory education. The government is in fact preparing teachers to teach coding for the new generations. The plan in 2019 was to involve compulsory and general secondary education, with the omission of secondary VET (GoS, 2019a; ETF, 2017d).

ICT skills at all levels are in demand, while there is an oversupply of business, administration and law graduates. ICT skills are underutilised in teaching and learning, while the absence of broadband in a number of geographical areas amplifies the problem. Very often the areas without broadband are underprivileged more generally, as we will discuss in the next section. Given the stake on human capital development, further efforts should be possible given the country's high technical capacity (OECD, 2018b).

Since 2017, Serbia has adhered to the Smart Specialisation Strategy (S3) approach, and adopted its first S3 in 2020, in order to break boundaries between old and new sectors and spur innovation at sub-

national level. The S3 can create new socio-economic development, evenly distributed across the country, but human capital has to be part of it. When it comes to innovation, the reflex is to focus on higher education, although the secondary and post-secondary levels in principle have great potential in innovation.

The guidance towards STEM could be more consistent. STEM subjects are likely to be in greater demand in the near future considering the new legislation on research and development, research and industry cooperation, and the creation of incentives such as innovation funds. On science, technology and innovation, Serbia is more advanced than the other economies in South East Europe, including a positive trend in the volume and quality of scientific production. Moreover, Serbia participates in the EU Horizon Programme.

The EU accession process is stimulating enhanced integration between the Western Balkans economies, starting with digital and physical infrastructure on the regional scale. The EU is steering the cooperation on softer areas too, like the enhanced dialogue on skills and labour market policies.

The education and training system is under-resourced according to the OECD. Lack of funding and insufficient human resources are seen as impediments to better quality and inclusion in the system. Besides this structural inefficiency, other weaknesses the OECD identified included poor coordination between education and other policies; undervaluing of the teaching profession and limited continuous professional development; and suboptimal capacity of social partners (OECD, 2018b).

Recommendations

To conclude this section, the education and training system in Serbia is going through a reform-intensive transition. The outcomes can only rely on the leadership of the government but the concerted effort of other relevant actors is necessary too. The recommendations of the ETF assessment are therefore addressed to the government in the first place, specifically the MoESTD, the Ministry of Labour, Employment, Veteran and Social Affairs and the Ministry of Finance. They are addressed at the same time to the business sector, specifically the employer, employee, chamber and sectoral representations that have a stake in the quality of skills and human capital.

VET is a sizeable part of the Serbian education and training sector, tasked with supporting a large part of the overall human capital development endeavour. Its capacity to respond should rely on a sound understanding of the ongoing changes in the economy, notably about the sectors and activities that are more profoundly affected by the innovation, and those where continuity will prevail. VET graduates that wish to specialise further have at present not much choice but to continue to higher education, due to gaps at post-secondary level.

Digitalisation is exemplary of the ongoing changes: its place in the Serbian economy and society is expected to increase, calling for adequate preparation of workers. On the one hand, schools should embed ICT competences from literacy to higher levels in the learning processes. On the other hand, the digital means will themselves become a feature of the learning environments.

Skills surveys are currently not granular enough to catch short-term demands and anticipate long-term developments, or are too sporadic. Collaboration between education and business, social partners and other non-governmental actors is not continuous enough for inputs in needs appraisal and education and training content updates to be regularly provided, and for the quality to remain high.

Although education is connected with other public policies, intergovernmental coordination is not always granted. This adds to the underestimation of human and financial resources needed to implement the reforms and attain the agreed long-term goals.

1. Address changes and learners' desire for opportunities to make VET attractive

The VET system should adjust and expand its offer according to the signals that originate from the real economy and from individuals' desires for paths to opportunities and development.

Post-secondary VET should expand to address the economy's concerns, while opening opportunities and a satisfactory alternative to higher education. Short-term courses at higher education level have been proposed and actually requested by companies and individual learners.

More generally, there is a need to diversify the offer to address learners' preferences as widely as possible. It is also necessary to attract inactive people to VET and enhance the accessibility of validation of non-formal and informal learning.

2. Assess trends at sector and subsector level to anticipate how employment will evolve

There is a need for greater skills anticipation by sector and more granular understanding of jobs that will continue, transform, or be destroyed. Serbia can count on the well-performing statistical office, and good technical knowledge and research capacity. It can also rely on highly committed sectors, some of which are self-organised and actively addressing skills gaps in their respective areas.

The SCs should leverage this capacity and commitment to speed up operations, and actually engage with the sectors that are more advanced to set an example and consolidate expertise.

3. Accomplish all ongoing reform targets

The open reforms have created momentum around the importance of human capital development through VET, higher education and continuing skills development. These reforms lay the basis for strengthening VET and education as a whole, and are therefore a very good opportunity.

Serbia should keep a relatively fast pace of implementation in order to take advantage of the innovation that the changes bring, by emphasising the benefits and engaging diverse actors in a more compelling manner.

The OECD has assessed the current financial allocation to education, training and research as being below the needs of the ambitious reforms Serbia has embarked on (OECD, 2018b). The recommendation is to increase it, based on the crucial role human capital can play in the country's cohesion and competitiveness.

3.3 Access to and quality of learning opportunities is not granted for all

We anticipated in section 2.3 of this report that place of residence, ethnicity, income and gender can explain how the opportunities for developing one's human capital are unevenly distributed in Serbia. The first three factors are especially relevant to disparities in educational enrolment and achievements, whereas the gender gap is particularly manifest with regard to activity rates, which in Serbia are historically lower for women compared to men.

Access to quality learning and quality employment is central to this section, based on analysis of the social and economic factors that most directly cause disparities in Serbia carried out by the

government's Social Inclusion and Poverty Reduction Unit. Employment, education, household type and place of residence are the factors that decisively influence living standards in Serbia (GoS, 2018b). The risk of poverty is closely associated with unemployment, primary or lower educational attainment, single parent with multiple children households, and residence outside urban areas. This provides the rationale for ascertaining whether good-quality learning and employment, i.e. the opportunities to form and use one's human capital, are well distributed across the country.

Starting with data regarding the formation of human capital via education, we note that 6.8% of young people aged 18 to 24 had completed at most lower secondary education and were not attending any non-formal training at the time of the survey, with no gender difference, in 2018. The rate was lower than the EU average of 10.6% in the same year; however, according to the TRP national report, the rate might be underestimated due to the LFS data collection methodology and the absence of regular tracer studies. The graduation and completion rates in secondary VET were relatively low in 2017, especially for the three-year profiles where the prevailing enrolment is from low-income households. The transition to work for young people with primary education took 41 months on average (GoS, 2019a).

The TRP report drew attention to regional discrepancies to explain the educational attainment differences, at least in part. Spatial analyses actually show divergent access to and choice of good-quality education, notably with respect to urban versus rural locations. The report identified an unsurprising association between the attractiveness of industries and public infrastructure, on the one hand, and the offer of multiple relevant educational options, on the other. Areas like Belgrade and the Vojvodina province offer learning and work opportunities that act as a magnet for internal migration, while rural municipalities are at a disadvantage in this respect.

Less attractive territories are exposed to the low-education and low-employment negative loop that exacerbates the disadvantage, unless action is taken. The territorial analysis conducted on the main regions (Nomenclature of Territorial Units for Statistics (NUTS) 2) on behalf of the European Commission showed that in 2016, Šumadija and Western Serbia featured the highest proportion of low-skilled people, whereas the highest proportion of high-skilled people was concentrated in the Belgrade area. In each region except Šumadija and Western Serbia, manufacturing provided more than half of the regional employment. Southern and Eastern Serbia featured the highest unemployment rate in 2016 and 2017, and was in fact the poorest region until 2018 (European Commission, 2017; GoS, 2018b, 2019a).

Individual students' present or foreseeable vulnerability requires attention too, to ensure high education enrolment and completion rates. These conditions may refer to students' health problems, learning difficulties, or ethnicity. Roma students tend to concentrate in three-year VET programmes; however, often their choice depends on the scarce profile offering in rural or less populated geographical areas, rather than on deliberate preferences. The consequence is the risk of segregation, considering that only in recent years have mitigating measures been launched.

Poverty negatively affects participation in and completion of education, and one could discuss how poverty intersects the various dimensions outlined above. The risk of dropout or early school leaving is higher among poor students. In his blog for the OECD, Ward analyses Programme for International Student Assessment (PISA) data and concludes that socio-economic status remains the strongest predictor of the disparities in educational achievement (Ward, 2019). Ward shows the inclusiveness level in education based on PISA scores broken down by gender, urban/rural location and socio-economic status, where the latter category was the most influential. No country could show parity of

outcomes between students with a low and high socio-economic background. Furthermore, pupils living in rural areas are lagging behind in many countries. Tackling poverty is thus essential within any country's strategy aiming to fulfil SDG4.

When shifting the attention to the use of human capital through employment, we found that women's labour market participation was significantly lower compared to men's. Figure 3 shows that participation in the labour market has increased since 2010, while the activity gender gap has remained significant.

FIGURE 3 – ACTIVITY RATE FOR THOSE AGED 15+ IN SERBIA, 2010 TO 2018 (%)



Source: Eurostat

We can now look at more granular data, namely the activity rate from 2010 to 2018 by age groups and gender (see Table 10). The gender gap remained high even if considering only the 20- to 64-year-old population: in this group, the female activity rate was 64.8% compared to the male rate of 80.2%, in 2018. The situation was, however, better in the younger generation: the 25–49 age group had a higher activity rate for both women and men, as well as a smaller gender gap, with 79.5% of women and 90.6% of men in the labour market in 2018.

TABLE 10 – ACTIVITY RATE IN SERBIA FROM 2010 TO 2018 (%)

15+	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total	47.0	46.5	46.8	48.5	52.0	51.7	53.3	54.0	54.5
Male	55.7	55.7	55.9	57.2	60.8	60.4	61.8	62.2	62.9
Female	39.0	38.0	38.3	40.5	43.9	43.6	45.5	46.3	46.7
15–24									
Total	28.5	28.5	30.0	29.0	28.8	29.4	30.3	30.7	30.0
Male	34.6	35.6	37.2	34.4	35.6	35.7	36.8	36.9	36.3
Female	21.9	20.7	22.0	22.9	21.5	22.8	23.5	24.1	23.3
25–49									
Total	80.9	82.2	82.5	82.5	82.4	82.3	83.0	83.7	85.1
Male	87.8	88.6	88.5	89.6	88.3	88.4	88.6	88.9	90.6
Female	74.0	75.7	76.3	75.3	76.3	76.1	77.3	78.4	79.5
20–64									
Total	63.8	64.1	64.5	66.1	67.9	68.1	70.0	71.2	72.5
Male	73.1	73.5	74	75.5	76.5	76.8	78.0	78.8	80.2
Female	54.8	54.8	55.1	56.9	59.5	59.6	62.0	63.6	64.8

Source: Eurostat

Unemployment is crucial in the discourse on use of human capital, besides activity/inactivity rates. The most striking statistics refer to youth unemployment in 2018, which was more than double the general unemployment rate: 29.7% of those aged 15 to 24 were unemployed against a general unemployment rate of 12.8%. At the same time it needs to be recognised that youth unemployment in Serbia has been progressively declining since 2012. The rate of youths not in employment, education or training, at 16.5% in 2018, declined for the fifth consecutive year, though slightly faster for young males than young females.

Regarding training after initial education², we note that access to CVT is less obvious for the population groups we have briefly considered in this section. They include those resident in rural areas, those with low education achievement, the non-active in the labour market and the unemployed. According to the AES 2016 data, only 7.3% from the 55–64 age group had access to training; only 0.5% of low-skilled people were in training; and only 9.5% of unemployed people had participated. These dimensions add layers of exclusion or more complex access to CVT.

There are numerous areas of disparities identified in the above picture. Each would require greater investment to form and make best use of human capital, especially those with low skills and low income, living far from urban areas and belonging to an ethnic minority. Against this picture, the total public expenditure on education as a percentage of GDP has been declining, from 4.6% in 2010 to 3.9% in 2016 in Serbia, as shown in Table 11.

² For a discussion on continuing training in relation to the demographic challenge and economic transformations see Section 3.1.

TABLE 11 – PUBLIC EXPENDITURE ON EDUCATION IN SERBIA, 2010 TO 2017

Expenditure rates	2010	2011	2012	2013	2014	2015	2016	2017
% of GDP	4.6	4.5	4.5	4.3	4.3	4.0	3.9	n.a.
% of total public expenditure	10.5	10.6	9.6	9.4	9.1	9.6	n.a.	n.a.

Source: TRP national report citing SORS (% of GDP, received); UNESCO (% of total public expenditure)
n.a. = not available

Data on continuing training expenditure is not collected in Serbia. Statistical information on continuing learning, skilling and reskilling measures is not widely available in the majority of countries, a common challenge which contributes to the difficulty of planning policy measures that have a lifelong learning perspective.

Table 12 provides the level of expenditure on labour market policies as a percentage of GDP. The allocation is low, especially considering the twofold aim of increasing the general human capital level in the country and abating the disadvantages in society, which the government has identified as a strategic priority.

TABLE 12 – EXPENDITURE ON LABOUR MARKET POLICIES

	2013	2014	2015	2016	2017
Expenditure on labour market policies (% of GDP)	0.05	0.03	0.08	0.08	0.08

Source: TRP national report

Government response

Serbia's current strategy for the development of education is based on highly inclusive principles. The vision and priorities in this strategy are coherent with the country's long-term goals, as summarised in the Introduction to this report. Other national strategies support these principles, such as the Strategy for Social Inclusion of Roma 2016–2025, which provides a comprehensive framework for action with budgeted measures aimed at improving the participation of young Roma in education and drastic reduction of dropout rates. Broadly, decision-makers and schools are progressively deploying measures aimed at easing participation and reducing or preventing early school leaving and dropout (GoS, 2019a).

The evidence in the TRP national report supports the above assessment of coherence between the national goals of social cohesion and the attention paid to inclusiveness in the education vision and associated strategies. The report also informs about the policy responses that may be falling short of expectations, based on the observation of intended and unintended effects at the stage of implementing the policy, as follows.

Positive affirmative actions are proving their worth in remedying well-identified difficulties. As said earlier, disadvantage cumulates in rural areas since the limited education and employment opportunities are reinforcing exclusion based on poverty and/or ethnicity. To act on this evidence, the government has mandated the schools to provide extra support to prevent student dropout, especially where participation in VET is a challenge for children from poor households and those in rural areas and small municipalities. Local self-governments are given direct responsibility to form inter-sectoral commissions for addressing special needs in education. Progress in integrating Roma students into the education system was acknowledged by the European Commission in its report for Serbia in 2019;

the European Commission (2019c) report also called for strengthening the implementation of measures to reduce dropout levels and segregation. On another front, the envisaged school rationalisation may generate extra risk, notably if the plan is to close schools located in scarcely populated areas.

Similarly, the Active Labour Market Policies (ALMPs) are successful when their design is tailored to specific population groups' needs. These comprise long-term unemployed people, inactive people, young people transitioning from school to work, adults with low levels of literacy and people with low skills levels. Employment rates after programme completion are relatively satisfactory, and the government is mobilising the employment services to build on the results and be even more responsive (GoS, 2019).

The opposite situation is that of insufficient targeting, and here the measures for unemployed young people illustrate the case. The EU-funded Employment and Social Affairs Platform's peer learning activity found that the ALMPs in South East Europe, including Serbia, are insufficiently targeted. Notably, while the data shows that unskilled young people hold the worst position in the labour market, no specific programme was designed to support this group. The platform's peer learning found offers of traineeships to gain in-company practical experience, for unemployed people under 29 years of age. In Serbia, the traineeships last up to one year. Being generically designed, however, they appeared to involve secondary and tertiary graduates, not unskilled young people. Tables 13 and 14 show that both youth-targeted and non-targeted ALMPs tend to benefit secondary or tertiary education graduates, whereas no measure is reaching unskilled young people (RCC, 2018).

TABLE 13 – YOUTH-SPECIFIC ALMPs DELIVERED BY THE PUBLIC EMPLOYMENT SERVICES IN SOUTH EAST EUROPE, 2018

Albania	(i) Employment of young graduates comprises on-the-job training (three months) and employment subsidies (for additional nine months) (ii) Professional practice for new graduates is a two-year programme that offers subsidised work experience in the beneficiary's career area (as required for certain occupations) (iii) Employment promotion of young orphans combines subsidised training (three months) with subsidised employment (15 months)
Bosnia and Herzegovina	(FBiH) (i) First work experience programme targets young unemployed (up to 29 years of age) and provides them with training and a period of work practice organised with partner enterprises (ii) Youth Entrepreneurship targets youths (up to 35 years of age) through the provision of start-up financial assistance (RS) (iii) Traineeship providing youths (up to 29 years of age) with no work experience a chance to obtain the required work experience to be able to pass their professional exam
North Macedonia	Internship Programme in line with the traineeship programmes implemented in European countries and with the EU Quality Framework for Traineeship targets registered young jobseekers (up to 29 years of age) with secondary or higher educational attainment (up to three months)
Montenegro	(i) Youth are our potential, let's give them a chance provides highly educated youths (up to 30 years of age) with three months of theoretical and 18 months of practical work experience (ii) Stop informal economy targets unemployed highly educated youths, up to the age of 30, with at least nine months of work experience with the purpose of enabling young people to take up jobs in the formal economy (iii) Working Independently is a six-month, on-the-job training programme targeting high school graduates who have obtained their diploma within the last two years
Serbia	The national employment service offers a traineeship programme (Practical practice) targeting young (up to 29 years) unemployed people with secondary and tertiary educational attainment and no work experience. The traineeship usually lasts up to one year

Source: RCC, 2018

TABLE 14 – SHARE OF YOUTHS BENEFITING FROM NON-YOUTH-SPECIFIC ALMPs BY EDUCATIONAL ATTAINMENT

	Republika Srpska	Kosovo*	Montenegro	Serbia
Number of youths in other ALMPs	826	855	740	5 042
Share of youths in other ALMPs	33.2	5.0	36.6	33.9
Share of beneficiaries with no qualifications	4.9	28.7	8.6	17.2
Share of beneficiaries with secondary degrees	57.0	61.8	55.8	62.2
Share of beneficiaries with tertiary degrees	37.0	9.6	35.5	20.5

Source: RCC, 2018

* 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.

VET has a clear role in the context of adult formal education, as well as training and retraining including for the unemployed, through agreements with employment services at the local level. The Riga report confirmed that VET schools are the most important formal providers of vocational training for adults. They offer retraining, further qualification and specialisation programmes for formal educational profiles, along with a variety of training courses lasting from three months to one year that are accredited under the Law on Adult Education (GoS, 2019b).

The ALMPs and the formal education and training that sustain quality employment are crucial for the effective use of human capital. Besides the measures, Serbia could activate complementary actions. The government could more decisively engage in the social enterprise field, allowing experimentation. Lessons on social entrepreneurship are being learned internationally; hence, Serbia could both try its own different models and participate in policy learning. The experimentation and policy learning would create expertise in view of a framework adequate to the Serbian context (ETF, 2017c).

The national Digital Strategy is an area requiring attentive monitoring, as in 2019 its plan was failing to cover remote geographical areas. Digital inclusion is a global concern: technological advances are creating new or accentuating existing divides in every country. Excluding those living far from urban areas from the Digital Strategy implementation would penalise the population groups that have less education and employment opportunities. Experts considered the e-inclusion policy scarce and incomplete, with schools lacking internet connection and basic digitalised material (OECD, 2018; Western Balkans Digital Summit, 2019). Teachers that were exposed to digital literacy training evaluated it as of high quality and practical; however, details about the plan for involving teachers in larger numbers, which the Riga report cited, were not available (GoS, 2019b).

Besides the education sector, the adoption of digital technology is significantly slower in SMEs compared to large companies. Also, the impact of measures addressed to the SMEs has been weak so far (OECD, 2018). In learning and working environments alike, both the access and approach to the technology matter. Said differently, in education the teaching may have to change, and in the SMEs the business model should change. The latter is more difficult to understand and implement, and therefore it requires adequate accompanying measures (Western Balkans Digital Summit, 2019).

The budget for education in Serbia is provided principally by the central government. Public secondary education is funded from central government, local government and from a secondary school's own income. The contribution as a percentage of GDP has been declining over the last decade, as shown in Table 11. There was no indication in the TRP national report nor in the ERP that the financing of education and VET in particular was going to increase. Researchers in Serbia have identified the need for a new, stronger pact on national education, also entailing a reform of management and financing of education (Aleksić, 2019).

When comparing Serbia's view on its future, it seems that the resource allocation to education and skills development has been underestimated. The vision of a high-performing economy that is innovative and competitive domestically and internationally is a realistic one, for a country endowed with high capacity and political commitment like Serbia. But human capital development requires investment to ensure quality education and training, in formal and non-formal modes, and an environment supportive of informal and self-learning for all.

Recommendations

1. Diverse needs to be matched by diverse offer

Ensuring effective and good-quality learning for young people and adults, of all backgrounds and socio-economic status, is a major endeavour where Serbia is making constant progress. VET is making its contribution, especially with its three- and four-year programmes, while a more varied provision would have more chance to meet the needs of those who are temporarily at a disadvantage.

It is recommended to widen the VET offer in two ways. First, broaden the qualification standards for more flexibility, thus easing graduate employability as well as the transition and mobility between jobs. Second, plan for diverse, flexible and short-term programmes to facilitate access for early school leavers, vulnerable children, young people not in education or employment, and people who are unemployed or need additional training to become active in the labour market.

Enhancing the key competences throughout the VET provision is to be seen in the same logic as redressing the disparities that have been discussed in this section. The key competences are necessary for every learner but even more for those who have less or no options for acquiring them at home, non-formally or on their own. Digital competence in particular can be an enabler of employment if accompanied by other measures. The plan for all secondary education teachers' digital literacy should be enacted without delay.

2. Strategise the support that mitigates vulnerability

There is a need to deploy a combination of skilling and other measures to tailor support to young people and adults with low skills levels. Researchers and policymakers have come to the conclusion that remedial actions need to include training, specific support for job matching, work-based learning and employment facilitation (Cedefop, 2016, 2019).

It is recommended to design measures that are tailored to well-identified needs. Modalities for delivering training should build on the learning attitude and preferences of the individuals. In the same logic, work-based learning should be adapted and supported for individuals from disadvantaged backgrounds.

3. Increase VET and ALMP financing

Overall, the financial allocation to education and training does not seem to cater for the development goals of Serbia. Failing to mobilise additional financial resources will lead to severe underachievement with respect to the country's strategic ambitions.

In relation to disparities in particular, it is important to recognise that disadvantaged groups should be provided with affirmative actions in a consistent manner for prolonged periods.

It is recommended to mobilise and allocate larger financial resources to the measures directed to those most in need, in order to mitigate the disparities discussed in this section. This would include greater financing for education measures and, as advised by the European Commission report on Serbia (2019c), for active labour market measures.

4. CONCLUSIONS

Preparation of the new Education Strategy 2030 creates for Serbia a superb opportunity to strengthen the lifelong learning orientation of the education and training system. Lifelong learning entails a new paradigm, but the country can build on the significant reforms and progress attained in the last decade to move to such an important step.

The consultation phase can build on different scenarios, depending on where Serbia would like to be in 10 years from now and beyond. The following are two polar hypotheses that have the purpose of starting a debate, which should ideally unfold shortly with participation and energy of many stakeholders from the public, private and non-profit spheres of society, both nationally and locally.

In one scenario, Serbia views itself as a competitive economy characterised by products and services, the majority of which are high value added. A substantive shift occurs from medium-level to knowledge-intensive jobs, as a consequence of investments in scientific areas, innovation, related physical and digital infrastructure, and human capital.

In another scenario, Serbia is going to strengthen the sectors that characterise its economic fabric while newer activities continue to grow at their own pace. There is a partial shift from medium-level to knowledge-intensive employment, which is as a consequence of the modernised physical and digital infrastructure, and investments in scientific areas, innovation and human capital.

Both are positive scenarios. The first envisages maximum change, whereas the second plans for moderate change and progressive consolidation of the ongoing business. In the two situations, human capital is central and that is what will emerge from the new Education Strategy 2030.

Serbia will delineate the most suitable scenario through discussions about and analyses of the Education Strategy 2030 formulation process. The outcome of this process will likely be mid-way between the two above simplistic outlines, but far better articulated.

All scenarios can rely on the assumption that economic growth, the EU accession process and regional integration will continue providing highly favourable conditions for investing in human capital development – like a once in a generation, terrific window of opportunity.

For the Education Strategy 2030 discussions, the ETF assessment is recommending focusing on three major areas:

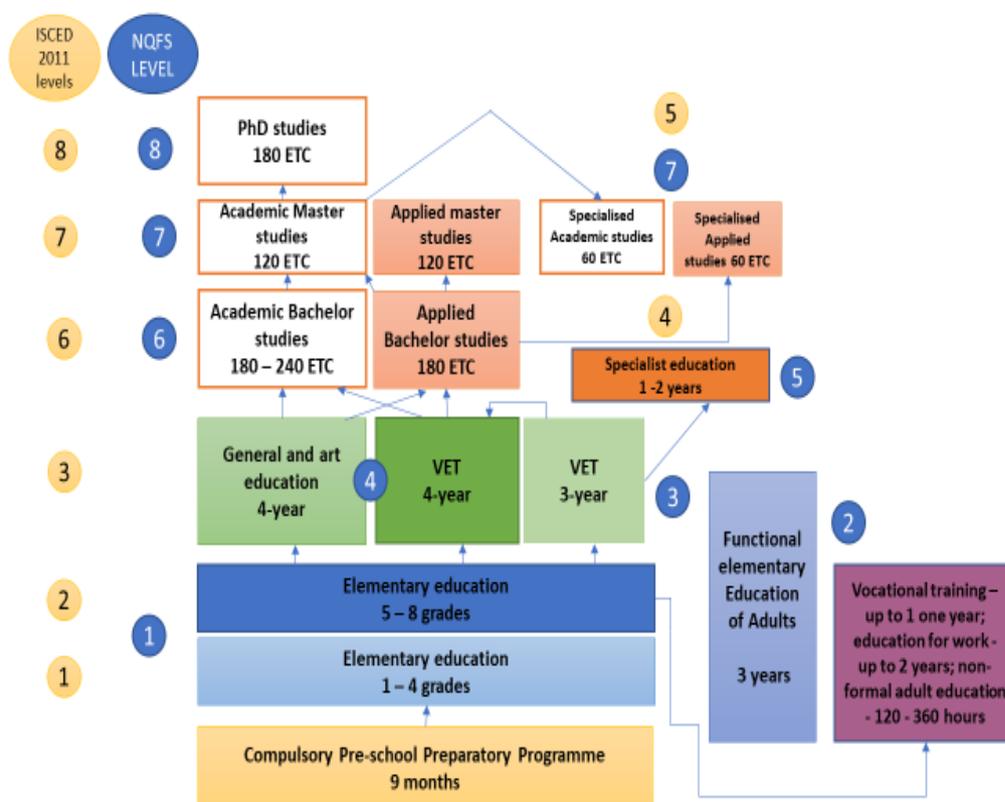
1. the quality and quantity of continuing formal, non-formal and informal learning opportunities so that every individual always has the chance to update or renew their skills;
2. the acceleration of the initial vocational education adjustment to the changes in the economy, in order to prepare young people for the labour market that, for the foreseeable future, will remain uncertain; and
3. the fine tailoring of education, training and ALMPs for many people so they can overcome the effective or potential vulnerability they experience.

All these areas involve policy commitment, expertise and financing. Mobilising financial resources is necessary to reposition education and training in the lifelong learning dimension and to make human capital consistent with the level of the country's ambitions.

ANNEX 1. SUMMARY OF RECOMMENDATIONS

Human capital development and use issues	ETF assessment recommendations	Actors to act upon the recommendations
<p>The 40- to 64-year-olds outnumber the younger cohorts in the active population</p>	<p>Make the new Serbia Education Strategy 2030 a lifelong learning strategy, and anchor adult education and Continuing Vocational Training (CVT) strongly in it.</p>	<p>Ministry of Education, Sciences and Technological Development (MoESTD) with the whole government. Social partners, chambers and sectoral organisations. Civil society organisations. Social and Economic Council. European Union (EU) and other international partners.</p>
	<p>The upskilling and reskilling has to match people's educational attainment. Make targeted action plan.</p>	<p>MoESTD, with Ministry of Labour, Employment, Veteran and Social Affairs (MoLEVSA), Ministry of Economy (MoE) and other government agencies.</p>
	<p>Data on adult education and CVT is essential for monitoring participation and evaluating effectiveness.</p>	<p>MoESTD, MoLEVSA and SORS (Statistical Office of the Republic of Serbia).</p>
<p>The economy features a mix of continuity and transformation</p>	<p>Offer learners attractive opportunities, notably at post-secondary VET and short-term higher professional level.</p>	<p>MoESTD, Ministry of Finance (MoF), MoE and other intergovernmental coordination. Social partners, chambers and sectoral organisations.</p>
	<p>Assess trends at sector and subsector level to anticipate how the employment will evolve.</p>	<p>MoLEVSA, with National Qualifications Agency (NQA), sector skills councils and SORS. Chambers and sectoral organisations.</p>
	<p>Accomplish all of the ongoing reform targets.</p>	<p>MoESTD with MoF, NQA and other intergovernmental coordination, education and training providers. Active support of social partners, chambers and sector organisations.</p>
<p>Access to and quality of learning opportunities is not granted for all</p>	<p>Diverse needs to be matched by diverse offer.</p>	<p>MoESTD, education councils, NQA, education and training providers.</p>
	<p>Strategise the support that mitigates vulnerability.</p>	<p>MoESTD, MoLEVSA, NQA, and national and local employment offices. Provincial and self-government authorities.</p>
	<p>Increase VET and ALMP financing.</p>	<p>MoESTD with MoF and other intergovernmental coordination. Education councils. Social and Economic Council. Social partners, chambers and sectoral organisations. Civil society organisations.</p>

ANNEX 2. STRUCTURE OF EDUCATION IN SERBIA



ACRONYMS

AES	Adult Education Survey
ALMPs	Active Labour Market Policies
CVT	Continuing Vocational Training
ERP	Economic Reform Programme
ETF	European Training Foundation
EU	European Union
GDP	Gross Domestic Product
GoS	Government of Serbia
ICT	Information and Communications Technology
ISCED	International Standard Classification of Education
LFS	Labour Force Survey
MoE	Ministry of Economy
MoESTD	Ministry of Education, Science and Technological Development
MoF	Ministry of Finance
MoLEVSA	Ministry of Labour, Employment, Veteran and Social Affairs
NQA	National Qualifications Agency
NQF	National Qualifications Framework
NRF	National Reporting Framework
OECD	Organisation for Economic Co-operation and Development
PISA	Programme for International Student Assessment
SC	Sector Council
SDG	Sustainable Development Goal
SORS	Statistical Office of the Republic of Serbia
STEM	Science, Technology, Engineering and Mathematics
S3	Smart Specialisation Strategy
TRP	Torino Process
UIS	UNESCO Institute for Statistics
UNESCO	United Nations Educational, Scientific and Cultural Organization
VET	Vocational Education and Training

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