

# TORINO PROCESS 2018 – 2020

## SERBIA

### NATIONAL REPORT

#### **Disclaimer**

#### **Serbia - national Torino Process report (NRF)**

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# ABBREVIATIONS

<b>ALMP</b>	Active labour market policy
<b>CCIS</b>	Chamber of Commerce and Industry of Serbia
<b>CIPS</b>	Centre for Information and Professional Counselling
<b>CNC</b>	Computerized numerical control (machine)
<b>CPD</b>	Continuous Professional Development
<b>CVEAE</b>	Council for Vocational Education and Adult Education
<b>CVET</b>	Continuing vocational training
<b>ETF</b>	European Training Foundation
<b>ERP</b>	Economic Reform Programme
<b>ECTS</b>	European Credit Transfer System
<b>EC</b>	European Commission
<b>EU</b>	European Union
<b>EUROSTAT</b>	Statistical Office of the European Union
<b>ENIC</b>	European Network of Information Centres in the European Region
<b>FEEA</b>	Functional Elementary Education of Adults
<b>GDP</b>	Gross domestic product
<b>GIZ</b>	German Agency for International Cooperation
<b>HE</b>	Higher education
<b>ICT</b>	Informational communication technology
<b>IIE</b>	Institute for Improvement of Education
<b>IEP</b>	Individual educational plan
<b>IEQE</b>	Institute for Education Quality and Evaluation
<b>IPA</b>	Instrument for Pre-accession
<b>ISCO</b>	International Standard Classification of Occupations
<b>IVET</b>	Initial vocational education and training
<b>LoFES</b>	Law on the Foundations of the Education System
<b>LFS</b>	Labour Force Survey
<b>LLL</b>	Lifelong Learning
<b>MFIES</b>	Monitoring Framework for Inclusive Education in Serbia
<b>MoESTD</b>	Ministry of Education, Science and Technological Development
<b>MoLSVA</b>	Ministry of Labour, Employment, Veteran and Social Affairs
<b>MTEF</b>	Medium-term Expenditure Framework
<b>NARIC</b>	National Academic Recognition Information Centres in the European Union
<b>NCEU</b>	National Convention on the EU
<b>NQFS</b>	National Qualification Framework in Serbia
<b>NEET</b>	Not in education, employment or training
<b>NES</b>	National Employment Service
<b>NEC</b>	National Education Council
<b>NQF</b>	National qualifications framework
<b>NRF</b>	National Reporting Framework
<b>OECD</b>	Organisation for Economic Cooperation and Development
<b>RPL</b>	Recognition of prior learning
<b>PROAE</b>	Publicly-recognised organizers of adult education
<b>RSA</b>	Regional School Administrations
<b>SBA</b>	Small Business Act
<b>SBS</b>	Sector Budget Support
<b>SCs</b>	Sectoral Councils
<b>SDC</b>	Swiss Agency for Development and Cooperation

<b>SEDS</b>	Strategy for Development of Education in Serbia by 2020
<b>SIPRU</b>	Social Inclusion and Poverty Reduction Unit
<b>SORS</b>	Statistical Office of Republic of Serbia
<b>STCTM</b>	Standing Conference of Towns and Municipalities
<b>TLP</b>	The Teaching and Learning Programme
<b>TP</b>	Torino process
<b>VET</b>	Vocational Education and Training
<b>UNICEF</b>	United Nations Children's Fund
<b>UNHCR</b>	United Nations High Commissioner for Refugees
<b>UN</b>	United Nations
<b>WBL</b>	Work-based learning

# COUNTRY AND VET OVERVIEW

## A.1: Country background

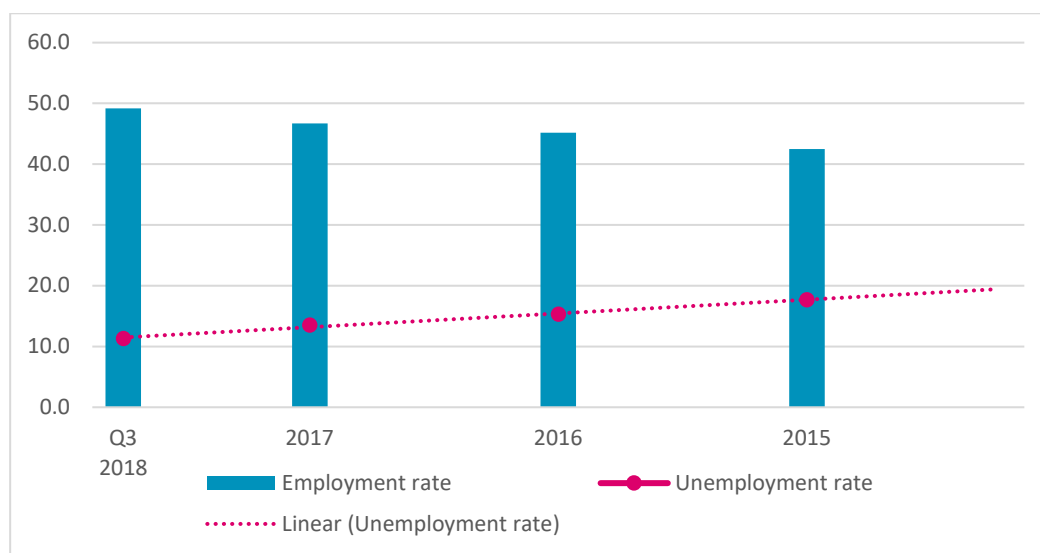
### A.1.1 Introduction

According to the Statistical Office of Republic of Serbia (SORS) data, the total population in Serbia in 2017 was 7.040.272 (3.429.027 of males and 3.611.245 of females).<sup>1</sup>

In the years between two Torino process (TP) reports, labour market outcomes in Serbia improved - the average activity rate (for population 15+) continued to increase from 53,3% in 2016 to 54% in 2017, and 55,5% in the third quarter of 2018.

Employment rate constantly grew while the unemployment rate declined. E.g. in the third quarter of 2018 employment rate has reached the new record for the period for which the comparable data series are available (2015 - 2018), amounting 49,2%, while the unemployment rate, in the same period, had the lowest value – 11,3%. (Figure 1).<sup>2</sup>

**Figure 1: Trends in employment and unemployment rates (in %), population 15+, 2015 - 2018**



Source: SORS - LFS

Among 126 countries, Global Innovation rank for Serbia was 55 in 2018,<sup>3</sup> while the Global Competitiveness Index Rank for 2017-18 was 65 (among 137 countries).<sup>4</sup>

Average salaries increased by 4,2% in real terms in the first half of 2018 compared to the same period of the last year. Poverty declined from 23,8% in 2014 to 22,4% in 2017.

Growth in the construction sector (of 26.4%) was particularly encouraging. Both public and private investments grew, with consolidated government spending on capital projects increasing by 44% in nominal terms in the first half of 2018 compared to the same period of 2017. Net exports subtracted 3,2 percentage points from growth.

In March 2012 Serbia was granted EU candidate status and within European integration process Serbia opened formal membership negotiations with the European Commission (EC) - the first Chapters (Chapter 32 and Chapter 35) were opened in December 2015; in July 2016, additional chapters (23 and 24) were

<sup>1</sup> Statistical Office of the Republic of Serbia - <http://www.stat.gov.rs/oblasti/stanovnistvo/>

<sup>2</sup> Statistical Office of the Republic of Serbia - <http://publikacije.stat.gov.rs/G2018/XlsE/G20181328.xlsx>.

<sup>3</sup> WEF - The Global Innovation Index – 2018 - <https://www.globalinnovationindex.org/gii-2018-report>

<sup>4</sup> WEF - Global Competitiveness Index – 2018 - <http://www3.weforum.org/docs/GCR2017-2018/05FullReport/TheGlobalCompetitivenessReport2017%E2%80%932018.pdf>

opened; in May 2017 Chapters 25, 26, 5 and 20 were opened and by the end of 2017, Chapters 7, 29, 6 and 30 were also opened.

Data provide by Social Inclusion and Poverty Reduction Unit of the Serbia Government (SIPRU) show that in Serbia the smallest risk of poverty has populations with higher education and that those who have only primary school diploma are at the highest risk of poverty.<sup>5</sup>

One of the main goals of the Government of the Republic of Serbia is the enhancement of application of information technologies including informatisation of the education system, so large steps are undertaken in the field of the country digitalisation and digital transformation including permanent work on the building of ICT infrastructure in schools by supply of the modern ICT equipment, the introduction of internet in all the school and support to teachers through different capacity building activities. Digital Readiness Index Rank for Serbia in 2018 was 44 (among 118 countries).<sup>6</sup>

However, Serbia is still suffering from occupational mismatch. The last available data (from 2016) point out that 7,1% of upper-secondary graduates working in low-skilled jobs (ISCO 9) and that 24,2% of tertiary graduates working in semi-skilled jobs (ISCO 4-9) (ETF, 2018a).

## A.2: Overview of vocational education and training

### A.2.1 Overview of VET: set-up and regulatory framework

Regarding the key terms related to the VET in Serbia, main definitions are placed in the legislation (e.g. in the Law on Dual Education, the Law on National Qualification Framework in Serbia (NQFS), etc.) and they are as following:

1) **Qualification** – formal recognition of acquired competencies. An individual shall acquire a qualification when a competent body determines that he/she achieved the learning outcomes of a certain level, corresponding the designated qualification standard, as acknowledged by a diploma or a certificate;

2) **Learning outcomes** – are distinct statements of what an individual is expected to know, understand and be able to demonstrate and/or perform after having completed a learning process. They allow for the verification of levels of acquired competencies and/or obtained knowledge, skills, attitudes and abilities;

3) **Qualification standard** – a document established under the Law on NQFS that contains the description of learning objectives and outcomes, including the details of a qualification constituting the foundation for determining its level, classification and evaluation;

4) **Non-formal learning** means organized processes of adult learning achieved through special programmes, aimed at acquiring knowledge, skills, abilities and attitudes focused on work and personal and social development.

5) **Work-based learning** (WBL) is organized process through which students, under the guidance of the in-company instructor and school coordinator of work-based learning (i.e. in the real working environment) are gaining competencies for work within one or group of occupations.

Regarding programmes, curricula for 3-year IVET profiles contain 30% of general and, at least, 65% of vocational education, while curricula for 4-year IVET profiles contain 40% of general and, at least, 55% of vocational education. Key competencies are integrated into curricula for all the profiles.

Qualifications within NQFS are divided into 8 levels and 4 sublevels:

NQF level	The way of acquiring
1	By completing primary education and upbringing, adult basic education, basic music, or basic ballet education and upbringing

<sup>5</sup> <http://socijalnoukljucivanje.gov.rs/en/social-inclusion-in-rs/statistics/overall-economic-and-social-context/>

<sup>6</sup> Cisco - Country Digital Readiness – 2018 - [https://www.cisco.com/c/m/en\\_us/about/corporate-social-responsibility/research-resources/gartner-regional-digital-readiness.html](https://www.cisco.com/c/m/en_us/about/corporate-social-responsibility/research-resources/gartner-regional-digital-readiness.html)

2	By completing vocational training, lasting up to one year, education for work for up to two years, or non-formal adult education in the duration of 120 - 360 hours of training. The condition for acquiring this level is the previous one the level of 1 NQFS gained.
3	By completing secondary vocational education of three-year duration, or non-formal adult educations for at least 960 hours of training. The condition for acquiring this level is previously achieved level 1 of NQFS.
4	By completing secondary education in four-year duration (vocational, artistic, or general). The condition for acquiring this level is previously reached the level of 1 of NQFS.
5	By finishing specialized education (post-secondary and not higher education, higher education short cycle vocational qualification, specialized VET qualifications) that lasted one or two years and non-formal adult education in at least 6 months duration. The condition for acquiring this qualification level are obtained qualifications at 3 or 4 level of NQFS, regarding non-formal adult education 4 level of NQFS.
6.1.	By the completion of the basic academic studies/ Bachelor programmes (BAS) of at least 180 European Credit Transfer System (ECTS) points or basic vocational studies/professional bachelor programmes/tertiary vocational education (BVS) of the same value. The condition for the acquisition of this level is previously achieved level 4 within NQFS and passed general, vocational or artistic matura.
6.2.	By completion the BAS of at least 240 ECTS points, or BVS of at least 60 ECTS points. The condition for the acquisition of this level is previously achieved level 6.1.
7.1.	By the completion of the integrated academic studies that ranges from 300 to 360 ECTS points, master academic studies (MAS) of at least 60 ECTS points, with the previously achieved BAS of 240 ECTS points, MAS of at least 120 ECTS points (with previously achieved BVS of 180 ECTS points), or master vocational studies of at least 120 ECTS points (with previous achieved BVS volume of 180 ECTS points).
7.2.	By finishing the specialist academic studies of at least 60 ETCS points (with previous master's academic degree)
8	By completing doctoral studies (PhD) of the volume of 180 ETCS points (with previously completed integrated academic, or master academic studies).

**Legislative framework related to VET in Serbia assuming: The Law on the Foundation of the Education System (LoFES)** (Official Gazette of the Republic of Serbia, no. 88/2017 and 27/2018) that determines the foundations of the education system in Serbia by defining main principles, objectives, outcomes, education and upbringing standards and competencies of the education system; **The Law on Secondary Education** (Official Gazette of the Republic of Serbia, no. 55/2013, 101/2017 and 27/2018) that regulates secondary education; **The Law on Adult Education** (Official Gazette of the Republic of Serbia, no. 55/2013) which govern formal and non-formal adult education and lifelong learning.

During 2017 and 2018, for the first time in Serbia two laws are adopted:

1. **Law on dual education** (Official Gazette of the Republic of Serbia, 101/17) regulates content and the ways of implementation of dual education as educational model in the system of secondary vocational education, in which through theoretical and school teaching and work-based learning in companies students acquire competencies in accordance with the standard of qualification and the curriculum of teaching and learning.
2. **Law on National Qualifications Framework in Serbia** (Official Gazette of the Republic of Serbia, no. 27/2018) enables and supports the establishment of the National Qualifications Framework of the Republic of Serbia, with the goal to integrate qualifications available in the Serbian system in an overarching framework, to improve the quality of qualifications, to promote and provide systematic support to lifelong learning, maximize national and international transparency as well as recognition and to provide opportunities to all individuals of the community. This law also regulates the procedure for adoption of qualification standards and contains references to the establishment of a quality assurance system in the process of planning, development, acquisition, certification and evaluation of qualifications.

The programme of **Vocational Matura** is also recently changed and defined by the Rulebook on the Programme of Vocational Matura and Final Exam (Official Gazette of the Republic of Serbia, no. 1/18). Its implementation is expected in the 2019/20 school year for three-year profiles and in 2020/21 for the four-year profiles. The Vocational Matura examines whether, after completion of the fourth grade of secondary vocational education for a particular educational profile, the student has acquired professional competencies prescribed by the standard of qualification.

## A.2.2 Institutional and governance arrangements

Institutional and governance arrangements remained the same as in the previous years<sup>7</sup> - the governance of education, including VET, is entrusted to the three main structures: (a) the **Ministry of Education, Science and Technological Development MoESTD**, (b) the **National Education Council (NEC)** and (c) the **Council for Vocational Education and Adult Education (CVEAE)**.

**Department for Secondary Education in MoESTD** is responsible for: vocational education, general and art secondary education, adult education, regulations in secondary education and administrative issues, while **Department for dual and entrepreneurial education** is deal with dual education, entrepreneurship, carer guidance and counselling and financial literacy at all the levels of education. **The NEC**, among others, has responsibility for the development and improvement of pre-primary, primary, general secondary and art education including adopting curricula and syllabi for general subjects in VET, while **the CVEAE** has jurisdiction over secondary vocational education and adult education. It, also, monitors and analyses the state of education in it the terms of compliance with the needs of the labour market and suggests measures for its promotion; participates in the preparation of strategies in the field of VET and adult education; follow, encourage and direct activities that link education and employment.

In addition to these three structures, the **Institute for Improvement of Education (IIE)** conducts different professional duties in the field of education and preparing different legislation from the fields MoESTD is in charge, while the **Institute for Education Quality and Evaluation (IEQE)** is in charge for monitoring and evaluation of achievements of general principles and goals of education, achievements of standards at all pre-university levels and in all types of education.

MoESTD network consists of the **Regional School Administrations (RSA)** which are responsible for the monitoring and external evaluation of the schools, the coordination of in-service teachers' training, controlling the financial management in schools, supporting data collection and strategic planning, and participating in the development of regional education plans and their implementation.

Also, few other ministries and institutions might have a prominent role in the field of education such are **The Ministry of Labour, Employment, Veteran and Social Policy (MOLSV)** (oversight concerning working conditions and occupational safety at companies during implementation of students' work-based learning), Ministry of Finance (financing), Ministry of Youth and Sports (career guidance, grants and scholarships for disadvantaged students), National Employment Service (NES), Standing conference of towns and municipalities.

During 2018, by the adoption of the Law on National Qualifications Framework in Serbia (NQFS), new, for VET important, institutions and bodies are established:

**National Agency for Qualifications** was founded in September 2018, by the Decision on Establishment of the Agency for Qualifications and in accordance with the Law on NQFS.<sup>8</sup> This agency is in charge for implementation and monitoring of the system including coordination and support of NQFS Council, cooperation with relevant international bodies and institutions and referencing of NQFS with the European Qualifications Framework and support of the development of Qualifications Standards. This agency is, also, in charge of the implementation and maintenance of the National Qualifications Register and to support the work of the Sector Councils.

**Sector Councils (SCs)**, as mentioned in the Law on NQFS, are expert and advisory bodies whose main function is to determine the demand for qualifications on the Serbian labour through dialogue and cooperation of representatives of labour and education sectors. Mandatory members of each council are representatives of the economy sector – delegated by Chamber of Commerce and Industry of Serbia

<sup>7</sup> Key changes in roles and responsibilities are described in E section of this report.

<sup>8</sup> Government Decision on the Establishment of the Agency for Qualifications No. 5, 02-7912/ 2018-2, dated 6 September 2018 (Official Gazette of the RS, No. 68/2018).

(CCIS) and members delegated by CVEAE; Conference of the Universities of Serbia/Conference of Vocational Colleges; National Employment Service (NES); ministries responsible for education, labour and employment; Associations of VET schools; trade unions; IIE and other relevant institutions and organizations.

Among other things, SCs will work on analyses of the existing qualifications and on identification of qualifications to be modernised; identification of qualifications that no longer correspond to the needs of sectors; make decision on the drafting of standards of qualifications within sectors; proposing lists of qualifications by levels and types that can be acquired through validation of prior learning, etc.

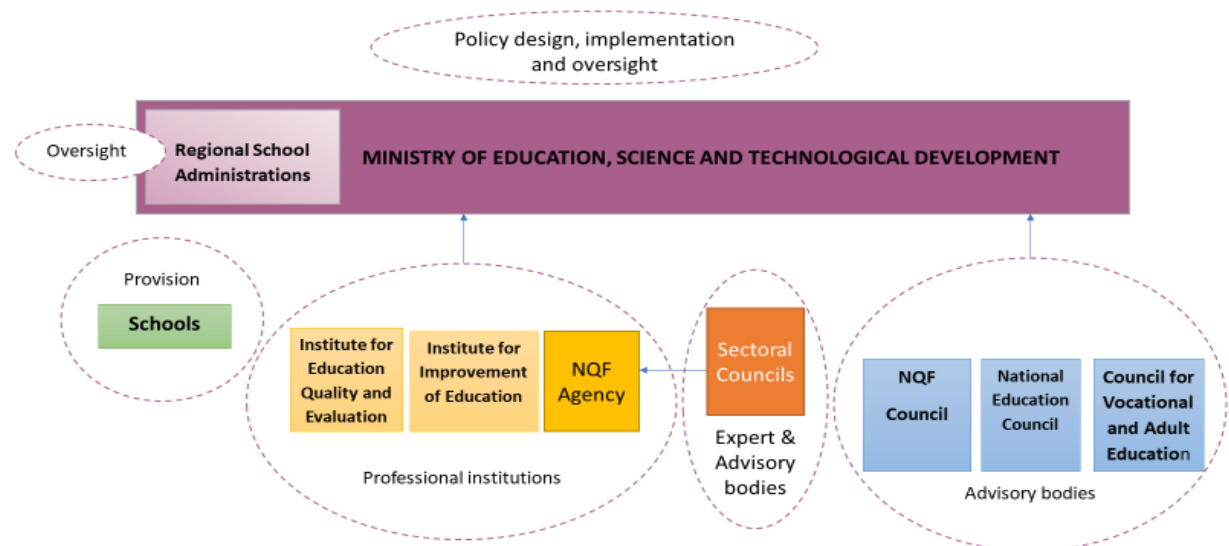
SCs should take care of qualifications acquired through initial vocational education (IVET), continuing vocational training (CVET) and higher education (HE).

The Government has adopted a list of sectors that will cover the existing qualifications and labour market, and there are, currently, defined following sectoral councils that await its formation:

- 01 - Education
- 02 - Art
- 03 - Social sciences, journalism and information
- 04 - Business administration and law
- 05 - Natural sciences, mathematics and statistics
- 06 - Information and communication technologies
- 07 - Engineering, production
- 08 - Construction
- 09 - Agriculture, forestry, fishery and veterinary medicine
- 10 - Health and social welfare
- 11 - Services
- 12 - Traffic.

It is important to note that the **Chamber of Commerce and Industry of Serbia**, along with MoESTD, has a leading role in the implementation of dual education as a key centre of cooperation between the education and employment sector. Its responsibilities are in the area of employers' accreditation for work-based learning, instructors' training and licensing, managing registries of employers and dual education contracts.

**Figure 2: Institutional and governance arrangement in the field of secondary education**



### A.2.3 VET statistic

According to the SORS data<sup>9</sup>, at the end of 2017/18 school year, there were 510 secondary schools (460 public and 50 private schools), among which 111 gymnasiums, 310 VET schools, 40 art schools, 45 mixed gymnasium and VET schools and 4 mixed VET and art schools. There are, also, 43 public schools/classes for students with disabilities.<sup>10</sup>

Currently, regular upper secondary schools in Serbia attending 249,094 students, i.e. 122,976 females (49.4%) and 126,118 males (50.6%).

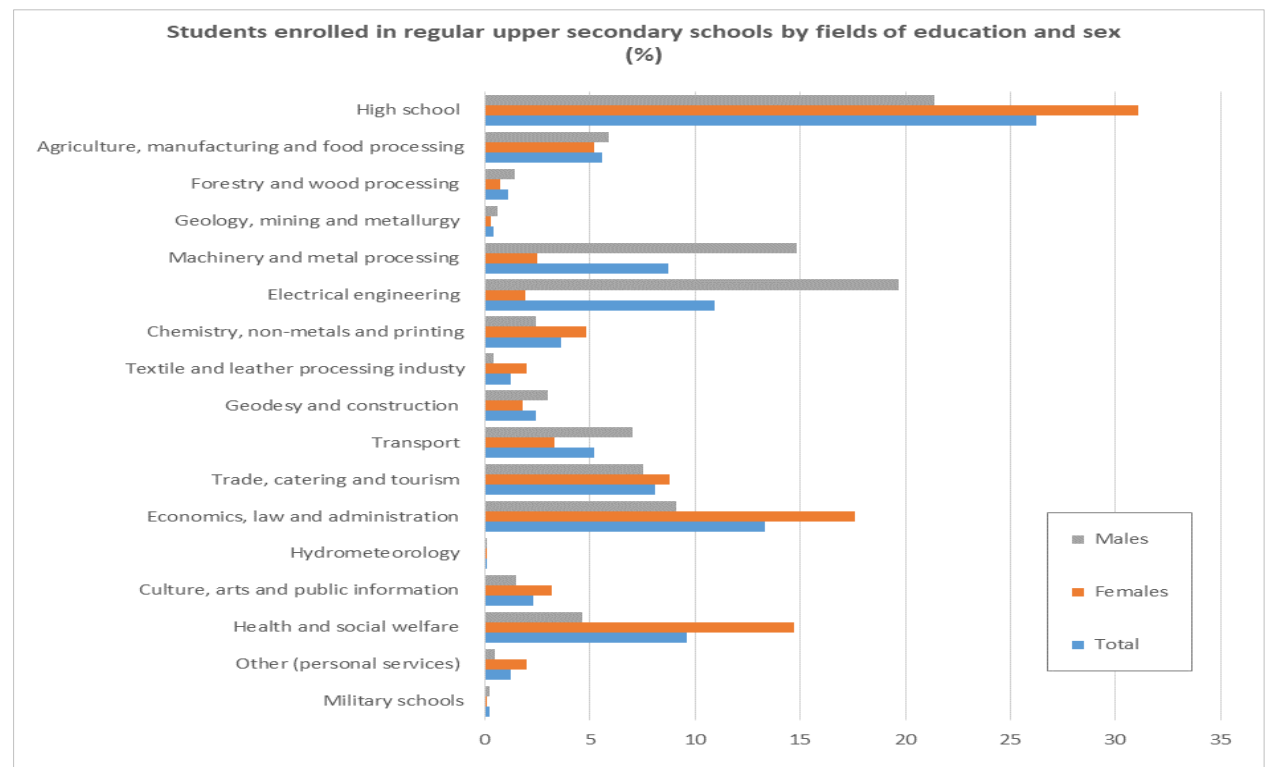
Approximately 1.5% of students attended private schools, and most students were enrolled in public schools (98.5%). Among all the students attending private schools, most of them are from the Belgrade region (about 62%) and Vojvodina (32%).<sup>11</sup>

VET profiles that last one, two and three years exist in about 40 schools/classes for students with special needs and disabilities. Schools and classes for students with special needs and disabilities were attended by 1,852 students, 743 females (40%) and 1,109 males (60%).

About 26% of students attended general education – high school while VET schools were attended by around 75% of students.

The most popular educational profiles were from the following fields of education: Economics, Law and Administration (13.3%), Electrical Engineering (10.9%), Health Care and Social Protection (9.6%), Mechanical Engineering (8.7%) and Trade, Catering and Tourism (8.1%).<sup>12</sup>

**Figure 3. Students enrolled in regular upper secondary schools by fields and sex**



Source: MoESTD

At the end of 2016/17 school year 58,948 students, 50,5% of girls and 49,5% boys finished regular upper secondary school.

Almost 90% of students completed 4-year programmes (25,7% gymnasiums and 63,6% four-year vocational school). Only 10,7% of students completed three-year VET programmes.

Regarding gender, almost two-thirds of girls (64%) finished four-year VET programmes, 29,6%

<sup>9</sup> Without Kosovo and Metohija

<sup>10</sup> Statistical Office of the Republic of Serbia - <http://data.stat.gov.rs/Home/Result/11030104?languageCode=sr-Latn>

<sup>11</sup> Statistical Office of the Republic of Serbia - <http://www.stat.gov.rs/en-US/oblasti/obrazovanje/srednje-obrazovanje>

<sup>12</sup> Statistical Office of the Republic of Serbia - <http://www.stat.gov.rs/en-US/oblasti/obrazovanje/srednje-obrazovanje>

gymnasiums and only 6,4% three-year VET programmes. Also, a great percentage of boys (63,1) finish a four-year vocational school. They finish gymnasiums in somewhat less percentage than the girls (21,8%), but in a much higher percentage than the girls (15,1) they finish a three-year vocational school.

Completion rate by fields of education is as follows: Economy, Law and Administration' (15,2%), Health Care and Social Protection (10.8%), Electrical Engineering (9.3%), Trade, Catering and Tourism (8.8%) and Mechanical Engineering and Metal Processing (8%).

Girls usually graduates in the fields of education Economy, Law and Administration (19.4), Health Care and Social Protection (16%) and Trade, Catering and Tourism (9.5%), while boys are graduating mostly from Electrical Engineering (17.4%), Mechanical Engineering and Metal Processing (13.7%) and Economy, Law and Administration' (10.9%).<sup>13</sup>

As visible from the tables below, for the years, percentage of students who are enrolling 3-year and 4-year VET profiles/programmes is around 74% of students, even their number is decreasing due to the negative demographic trends.

**Table 1. Students in vocational programmes as % of total upper secondary students**

VET	2015	2016	2017
<b>Total</b>	75,1	74,6	74,4
<b>Male</b>	79,0	78,9	78,9
<b>Female</b>	71,0	70,2	69,7

Source: SORS

**Table 2. Students enrolled in vocational programmes at the upper secondary level of education**

VET	2015	2016	2017
<b>Total</b>	197.538	190.899	187.383
<b>Male</b>	105.180	102.223	100.940
<b>Female</b>	92.358	88.676	86.443

Source: SORS

Regarding a number of active VET profiles, the latest data reports that in September 2018, 156 four-year and 94 three-year education profiles divided within 15 fields of work/economic sectors were available to students. An overview of the number of profiles by the duration of schooling and the field of work is presented in the following table.

**Table 3. Available VET profiles by field of work and duration**

No.	Field of work	4-year	3-year
1	Agriculture, food production and processing	8	8
2	Forestry and wood processing	6	8
3	Geology, mining and metallurgy	6	6
4	Mechanical engineering and metal processing	25	30
5	Electrical engineering	14	7
6	Chemistry, non-metals and graphics work	11	4
7	Textile and leather	7	6
8	Geodesy and civil engineering	7	9
9	Transport	13	5
10	Trade, catering and tourism	6	4
11	Economy, law and administration	11	0

<sup>13</sup> Statistical Office of the Republic of Serbia - <http://publikacije.stat.gov.rs/G2018/PdfE/G20181097.pdf>

12	Hydro-meteorology	2	0
13	Culture, art and public information	24	0
14	Health care and social protection	13	2
15	Personal services	3	7
<b>TOTAL</b>		<b>156</b>	<b>94</b>

Source: Institute for the Improvement of Education (IIE)

According to the MoESTD data, in 2018/19 school year, students enrolled in first grade in 130 four-year and 71 three-year education profiles. Enrolment in dual profiles took place in 84 schools (23% of all VET schools), while a number of dual profiles (comparing to the previous school year, is increased by 12 profiles, so currently dual education is implemented through 32 profiles.<sup>14</sup>

Currently, a total of 4,500 students attending dual profiles among which 2,969 of them are enrolled in dual profiles during the 2018/2019 school year.<sup>15</sup>

According to the MoESTD internal data, the highest number of Roma students enrolled in secondary education through affirmative measures are enrolled in VET schools in the fields of mechanical engineering, traffic and technology-related fields. The second most common choice for Roma students enrolled through affirmative measures are profiles in the fields of leather processing and textile and personal services, while the smallest number of them enrolling general education and are enrolled to the smallest extent in most attractive profiles in fields of medicine, pharmacy, economy and agriculture.

A total number of teachers in secondary schools in school 2016/17 year was 29,739 among which 16,130 were full/time employed.<sup>16</sup> There is no official, precise and segregated data on teachers in VET schools (statistic exist only for teachers in all the secondary schools).

Regarding student-teacher ratio in secondary vocational education (headcount basis), as a reflection of the negative demographic trends, in 2012/13 school year ratio was 8,9 while the ratio for 2017/18 school year was 7,9.<sup>17</sup>

Data on public expenditure on vocational education and as a share of gross domestic product (GDP) as well as data on the share of VET funding by the source are not available.

#### A.2.4 Vision for VET and major reform undertakings

The Strategy for Development of Education in Serbia by 2020 (SEDS) adopted in 2012 (Official Gazette of the Republic of Serbia, no. 107/2012) and the Action Plan for the Implementation of the Strategy for Education Development in Serbia by 2020 (Official Gazette of the Republic of Serbia no. 16/15) are still valid. This strategy cites main principles of the quality education system, including VET, in the Republic of Serbia by 2020 and calls for the provision of high-quality education for all, an increase of students' coverage and attainment at all levels of education by maintaining the relevance of education and increasing efficiency.

The development of education that will meet the needs of the labour market to the maximum extent and the development of the national model of dual and entrepreneurial education were priority goals of the Government of the Republic of Serbia for the last few years, and in accordance with such directions the Law on Dual Education and the Law on NQFS are adopted.

Modernisation of educational profiles content and structure continued - reformed educational profiles are based on the qualification standards, developed in cooperation with the representatives of companies and the ratio of practical and theoretical lessons was changed to the benefit of practical lessons in school cabinets and workshops, but also in the companies.

Until today, 85 curricula have been adopted by applying this methodology. This accounts for around one-third of all active (156+94) educational profiles, attended by 64% of newly enrolled students at secondary

<sup>14</sup> <http://www.mpn.gov.rs/wp-content/uploads/2018/05/KONKURS-ZA-UPIS-U-SREDNJU-SKOLU-2018-19-170518-v2.pdf>

<sup>15</sup> <http://www.upis.mpn.gov.rs/Cir/Pocetna>

<sup>16</sup> Statistical Office of the Republic of Serbia - <http://data.stat.gov.rs/Home/Result/11030201?languageCode=en-US>

<sup>17</sup> MoESTD internal data

vocational schools in the school year 2018/2019 (MoESTD, 2018).

In the school year 2017/2018, the enrolment plan envisaged a reduced number of places in the secondary vocational schools by overall 2.3%, so that the number of available places is adjusted to the demand for certain vocational education profiles. These changes involved the reduction in the quota of offer for profiles attending a four-year education in the field of economics, law and administration, and the increase in the quota of craft/three-year education profiles in several economy sectors (construction 15%, forestry and woodworking 33%, textiles and tanning 47% trade catering and tourism 3%) (MoESTD, 2018).

In the field of non-formal education, the Government of Serbia has launched a pilot project for retraining 100 participants for IT, and competition for another 900 participants is in progress (ETF, 2018b).

Within CVET, two rounds of requalification took place with 800 participants, while third round (has implemented by National Employment Service, is ongoing. Also, after completion of ICT training organised by the Office for IT and eGovernment, 100 training participants are employed.<sup>18</sup>

## A.3: The context of VET

### A.3.1 Socioeconomic Context

Serbia suffers from the strong trend of demographic decline in the last decade and, according to SORS calculations, such a trend is going to continue bearing in mind negative (-0.5) population growth rate.<sup>19</sup>

Formal employment in Serbia in the first half of 2017 was increased by 5%, while informal employment went down by 0,6% compared to the same period of 2016. A considerable decrease in the long-term unemployment rate from 11,2% to 8,1% is yet another indicator of labour market improvement. However, despite the reduction of overall unemployment, the number of unemployed youths in Serbia is still high.<sup>20</sup>

The labour market in Serbia, regarding contractual arrangements, is characterised by open-ended and full-time labour contracts (over 77% of employees worked on an indefinite duration contract in 2017). Nevertheless, it is interesting to note that almost 80% of the employees aged 25-64 have contracts with indefinite duration but only 42% of young workers have such contractual arrangements (ETF, 2018a).

In all the Serbian regions, the employment rate increased in the period from 2014 to 2017 (the highest employment rate was in the regions of South and East Serbia and Vojvodina), and in 2017 the employment rate in the region with the highest rate (Region of Sumadija and Western Serbia - 64.9%) was 3.6 percentage points higher than the employment rate in the region with the lowest employment rate (South and East Serbia - 61.3%) (Government of the Republic of Serbia/SIPRU, 2018).

Age dependency ratio (% of working-age population) in Serbia was reported at 51.1 % in 2017 (age dependency ratio – old 26,2 and age dependency ratio – young 24,9%).<sup>21</sup>

The relative size of the youth population in the population aged from 15 to 64 it was 16% in 2017 while the percentage of the youth population in the population aged 15 and more in the same year was 12,4%.

**Table 4. The relative size of the youth population (%) in population aged 15-64**

Year	2015	2016	2017
Total	16,4	16,2	16,0
Male	16,9	16,7	16,5
Female	15,9	15,7	15,5

Source: SORS – LFS

<sup>18</sup> <https://itobuke.rs/rs/prijave-na-program-prekvalifikacije-za-it-namenjen-zaposlenima-do-20-novembra-2/>

<sup>19</sup> Statistical Office of the Republic of Serbia - <http://publikacije.stat.gov.rs/G2018/Pdf/G20181169.pdf>

<sup>20</sup> Explained in more details under section B – B 1.1. Labour market situation.

<sup>21</sup> World Bank, WDI database - <http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators&>

**Table 5. The relative size of the youth population (%) in population aged 15+**

Year	2015	2016	2017
Total	12,9	12,6	12,4
Male	13,7	13,4	13,2
Female	12,1	11,8	11,6

Source: SORS – LFS

Regarding the gross value added by economic sectors, it is visible from the table below that the services sector contributes the most.

**Table 6. Gross value added by broad economic sectors (%)**

Year	2015	2016	2017
Agriculture	6.8	6.5	6
Industry	26	25.8	26.4
Services	50	50.1	50
Other	17.2	17.6	17.6

Source: World Bank, WDI database

When it comes to gross domestic product, there was 1.9% annual growth rate in 2017 and for the same year, GDB per capita growth was 2.4%.<sup>22</sup>

**Table 7. Educational attainment of active population (% aged 15+)**

Year	2015	2016	2017
LOW	17,0	17,8	17,4
MEDIUM	58,7	57,8	57,6
HIGH	24,2	24,4	25,0
<i>Male</i>			
LOW	17,5	17,7	17,3
MEDIUM	62,9	62,6	62,2
HIGH	19,6	19,8	20,5
<i>Female</i>			
LOW	16,5	18,0	17,6
MEDIUM	53,3	51,7	51,8
HIGH	30,2	30,3	30,6

Source: SORS – LFS

### A.3.2 Migration and refugee flow

There is no precise data on emigration and immigration flows in the Republic of Serbia that are collected annually. Rough estimates based on data from different sources refer to the average annual negative balance of external migrations of at least 15,000 persons (data from the Republic Bureau of Statistics,

<sup>22</sup> World Bank, WDI database - <http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators&>

Commissariat for Refugees and Migration, and the countries that most often accept migrants from the Republic of Serbia) (Government of the Republic of Serbia/SIPRU, 2018). Also, some studies stated that in Serbia, around 30,000 people (mostly highly qualified) emigrate annually (European Council on Foreign Relationships, 2018). In any of case, there is no question that such trends will have immediate negative consequences for the Serbian economy. (More explanation is provided under B 1.3.).

As for the refugees' flow, there is no data on their education/qualification level, but rather only data on the numbers. United Nations High Commissioner for Refugees (UNHCR) data show that there were 29.522 registered refugees in 2016 in Serbia, and that number slightly increased – in June 2018. At the same period, 90% of refugees were accommodated in 18 governmental centres, over 300 were observed outside: some 150 in Belgrade and another 170 who are camping close to borders with Croatia or Hungary.<sup>23</sup>

The United Nations (UN) statistics point that the number of people born in a country other than Serbia in which they live (including refugees) in 2017 was 801.903. Also, among all the refugees in Serbia in 2016, only 130 were asylum seekers which confirms the assumption that Serbia is one of the countries refugees are passing to their way to Western Europe countries.

**Table 8. The international migrant stock of mid-year by age-groups and sex**

Year	2010	2015	2017
<b>TOTAL</b>	<b>826.066</b>	<b>807.441</b>	<b>801.903</b>
<i>below 15 years</i>	18.110	16.588	15.490
<i>15 to 64 years</i>	586.634	571.578	528.891
<i>above 65 years</i>	221.322	219.275	257.522
<b>MALE</b>	<b>364.654</b>	<b>355.180</b>	<b>352.744</b>
<i>below 15 years</i>	9.331	8.519	8.004
<i>15 to 64 years</i>	265.796	256.827	238.588
<i>above 65 years</i>	89.527	89.834	106.152
<b>FEMALE</b>	<b>461.412</b>	<b>452.261</b>	<b>449.159</b>
<i>below 15 years</i>	8.779	8.069	7.486
<i>15 to 64 years</i>	320.838	314.751	290.303
<i>above 65 years</i>	131.795	129.441	151.370

Source: United Nation Population Division - Trends in International Migrant Stock: The 2017 revision (UN database)

**Table 9. Number of refugees by country/territory of asylum/residence<sup>24</sup>**

Year	2016 <sup>25</sup>
Refugees	29.522
Asylum seekers	130
Returned refugees	166
Persons under UNHCR's statelessness mandate	2.373
People in refugee-like situations	7.000
Total refugees and people in refugee-like situations	36.522
Total population of concern	259.301

<sup>23</sup> <https://reliefweb.int/report/serbia/unhcr-serbia-update-11-24-june-2018>

<sup>24</sup> <http://www.unhcr.org/globaltrends2016/>

<sup>25</sup> Data refers to Serbia and Kosovo

Source: UNHCR

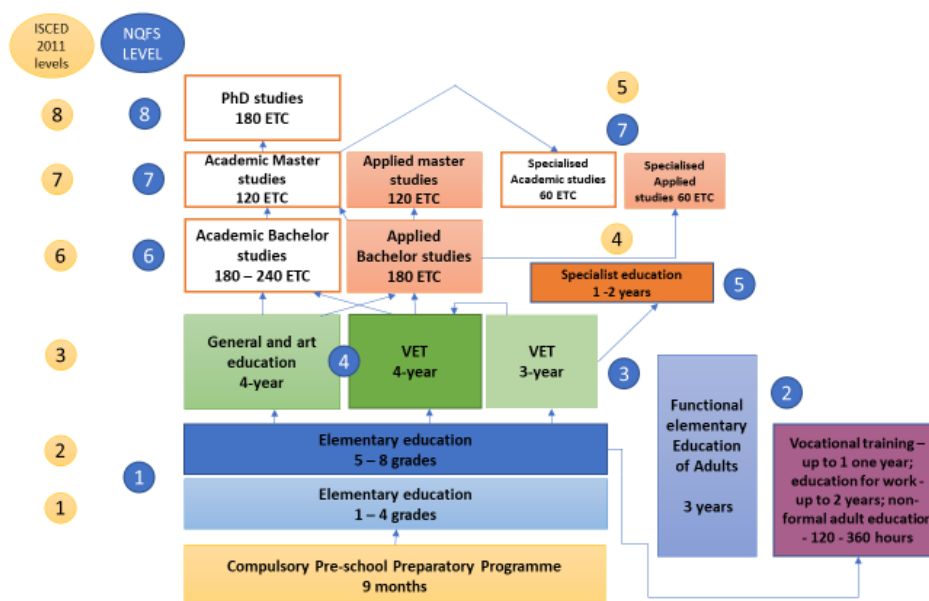
The number of children accommodated in collective and transit centres varies and not all of those children are school age. In May 2017, the total of 101 students are attending schools in Palilula, Vozdovac, Lajkovac, Zemun, Rakovica, and attending instructions that assume 2 school classes (in different subjects) and 2 workshop classes (language workshops and workshops on other topics) or alternatively 2 elective courses selected by the student in cases where they could speak English or Serbian language.<sup>26</sup>

According to the official MoESTD report from October 2017 classes for migrants were realised in 45 schools for a total of 503 students (447 in primary schools and 56 in secondary). For an additional 83 students, classes were organized in collective centres, in Sombor and Zrenjanin.<sup>27</sup> According to the same report, most of the migrant students were enrolled in VET schools in the fields of mechanical engineering, electrical engineering and traffic.

### A.3.3 Education sector context

The Serbian pre-university education system consists of the pre-school preparatory programme, elementary and secondary education. Higher education institutions in Serbia are universities, colleges of applied sciences and colleges of academic studies. Structure of the education system in Serbia is presented in more details in figure 4.

Figure 4. Structure of the education system in Serbia

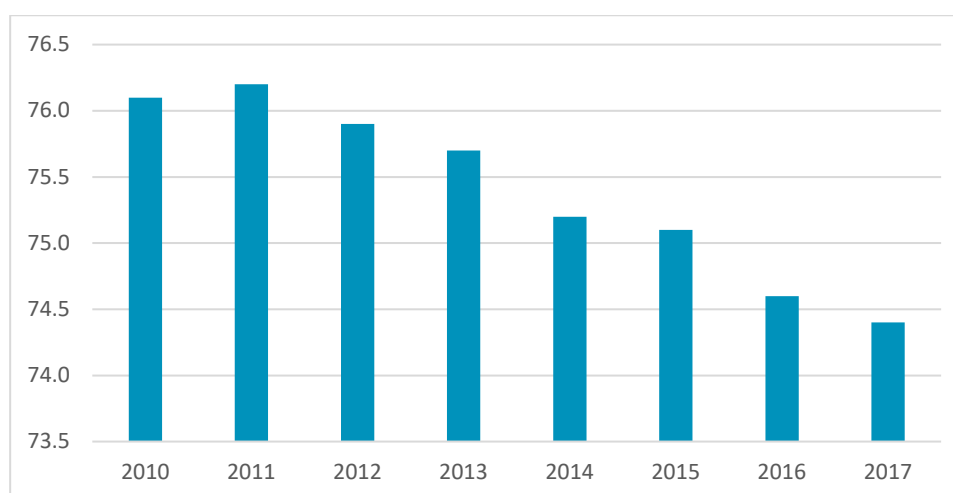


For the last seven years the proportion of students enrolled in VET profiles is around 75%, even it is in continuing decline (figure 5).

Figure 5. Students in vocational programmes as a percentage of total upper secondary students

<sup>26</sup> Internal MoESTD data

<sup>27</sup> <http://www.mpn.gov.rs/wp-content/uploads/2017/11/za-sajt-Obrazovanje-ucenika-migranata-u-RS-novembar-2017-eng.pdf>



Source: SORS<sup>28</sup>

In the school year 2017/18, 152,723 students were enrolled in four-year profiles, 30,407 enrolled in three-year profiles, while 66,078 enrolled general secondary schools and art secondary schools (SIPRU/Government of the Republic of Serbia, 2018).

According to the SORS data, a number of graduates from 3-year profiles in 2016/17 school year was 6,306 students and the number of graduates from 4-year profiles in the same school year was 37,474 students. Same source data show that gross graduation rate of the students from the 3-year profiles in 2016/17 school year was 9,1% (calculated as % of 18-year-olds) while the percentage for 4-year profiles was 52,4 (as % of 17-year-olds).

When it comes to completion rate in secondary vocational education by programme in 2016/17 school year, there was 77,6% of students from 3-year profiles and 86,7% of those from 4-year profiles.

In the 2016/17 school year, among 262,108 students in tertiary education, 57,48% were those who previously completed VET programmes. When it comes to newly enrolled students this percent is higher - almost 63%.<sup>29</sup>

**Table 10. Enrolled students by previously completed educational track (2016/17 school year)**

	All tertiary students	Newly enrolled students
Total	262,108	59,269
Gymnasium	111,450 (42,52%)	21,964 (37,06%)
VET schools	150,658 (57,48%)	37,305 (62,94%)

Source: SORS

However, presented data should be seen in the light of the fact that more than 70% of each of the generations of graduate students are VET graduates, and that is right to assume (bearing in mind above-presented data) that most of the students of VET schools are continuing their education at the higher education level.

### A.3.4 Lifelong learning context

The mission of adult education in Serbia is to provide adult citizens opportunity for education and lifelong learning and has the following functions: to respond to labour market needs and individual needs for new knowledge and skills; to improve employment opportunities; to facilitate professional mobility and flexibility

<sup>28</sup> From 2015 onwards, data include students with special needs

<sup>29</sup> Statistical Office of the Republic of Serbia - <http://publikacije.stat.gov.rs/G2017/PdfE/G20176010.pdf>

of working-age population; to increase the value of human capital and the possibility of sustainable social and economic development of the country and its integration into the global economy; to contribute to poverty reduction, to increase inclusion and inter-generational solidarity; to contribute to quality of life, the development of democracy, tolerance and inter-cultural relations.

Serbia's strategic commitment is that by 2020, a minimum of 7% of citizens participate in some form of lifelong learning (EU goal is 15% by 2020). The data show that the EU average in the participation in adult education was 10.9% in 2017, while in Serbia only 4.4% of persons aged 25 to 64 were covered by some of the adult education programmes. Percentage of males involved in training programmes in 2017 was 4.2 while such percentage for females was 4.6 (SORS – LFS, 2018). If we compare the mentioned data with data from previous LFSs, 4.4% presents decrease comparing to previous years since participation in lifelong learning in 2016 was 5.1 and 4.8 in 2015.

VET schools are a provider of adult education and VET schools are offering requalification and additional qualification programmes, as well as a significant number of training courses that last from three months to one year. Such training courses have to be accredited in accordance with the Law on Adult Education.

In 2017, part-time secondary education for adults was realized in 209 secondary vocational schools, attended by 2,801 participants. Also, the activities of retraining, additional qualification and specialization were attended by 6,747 students and were realized in 238 secondary vocational schools (ETF, 2018b).

However, it should be noted that primary education is still predominant among the adult population, which emphasizes its compensational and poverty reduction role, whereas the numbers related to the planned and achieved participation indicate that the existing capacities of the system are not sufficiently utilized (SIPRU/Government of the Republic of Serbia, 2018).

### A.3.5 International cooperation context: partnerships and donor support

For decades Serbia is receiving strong donor support in modernisation and improvement of the VET system. EU supported these processes through few long-lasting and large projects (value of projects was between 2 and 4 million) and within mentioned projects modernisation of different profiles, capacity building activities, equipment supply took place as well as different activities related to the establishment of NQF and system of validation of prior learning. Also, the Swiss Agency for Development and Cooperation (SDC) supported the development of VET and dual education program in the wood processing industry in Užice, through its Private Sector Development program during 2014-2017.

Biggest ongoing projects are presented below:

Title of the project	<b>Reform of vocational education and training/Programme: Sustainable growth and employment in Serbia<sup>30</sup></b>
Donor	Implemented by the German Agency for International Cooperation (GIZ) on behalf of the German Federal Ministry for Economic Cooperation and Development
Implementation period	2013 - 2019
Budget	EUR 6,4 millions
Brief description of the intervention	The project has been focused on introducing and implementing modernised three-year technical profiles <sup>31</sup> that are based on strong cooperation with companies and with strong employment potential. In order to secure proper implementation, capacity building of the partner institutions took place.

<sup>30</sup> <https://www.giz.de/en/worldwide/21223.html>

<sup>31</sup> Locksmith-welder, electrician, industrial mechanic, tailor, car mechanic and electro fitter for network and installations

	<p>Approximately 2,700 students are being trained in these occupations at 52 vocational schools and the project is working closely with 200 companies.</p> <p>Also, since mid-2017 activities aimed at involving young people from vulnerable groups in secondary vocational education are implementing within this project.</p> <p>Regarding the results, so far 312 students graduated out of which 204 were employed immediately after graduation for the first two generations of graduates.</p>
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Title of the project	<b>Policy advise for efficient VET reform in Serbia - Support in Development and Establishment of National Model of Dual Education</b> <sup>32</sup>
Donor	<b>Swiss Agency for Development and Cooperation (SDC)</b>
Implementation period	2018 - 2021
Budget	CHF 1 million
Brief description of the intervention	The project aim is to facilitate a policy dialogue with the key stakeholders on the future VET system in Serbia and it assumes: 1) supporting the development of by-laws and guidelines needed for better understanding and implementation of the Law on dual education, 2) development of M&E system of work-based learning and capacity building of involved actors to apply it and 3) promotional activities in order to improve the image of dual education.

Title of the project	<b>Support for the Implementation of Employment and Social Policy Reform Programme in the Republic of Serbia with a Focus on Employment Policy and Increasing Youth Employability (Youth Employment Initiative)</b> <sup>33</sup>
Donor	<b>Swiss Agency for Development and Cooperation (SDC)</b>
Implementation period	2016 - 2019
Budget	CHF 80,000
Brief description of the intervention	As a part of the bigger programme 'From education to Employment (E2E) - Youth Skills Development and Public-Private Partnership in Serbia' Youth Employment Initiative supports developments of three sector profiles, development of policy recommendations for the financing of Sector Skills Councils and criteria for

<sup>32</sup> <https://www.eda.admin.ch/countries/serbia/en/home/international-cooperation/projects.html/content/dezaprojects/SDC/en/2019/7F09785/phase1?oldPagePath=/content/countries/serbia/en/home/internationale-zusammenarbeit/projekte.htm>

<sup>33</sup> <http://sociojalnoukljucivanje.gov.rs/en/about-us-2/youth-employment-initiative/>

	their establishment, and development of methodology for the development of qualification standards.
Title of the project	<b>To improve the relevance of the education system for the labour market by linking labour market needs with the education system<sup>34</sup></b>
Donor	European Commission
Implementation period	2017 – 2019
Budget	EUR 6.2 millions
Brief description of the intervention	<p>This project is component 4 of the Sector Budget Support project 'Sector Reform Contract: Education Reform in Serbia – strengthening links with employment and social inclusion' and its overall objective is to assist the Government of Serbia in implementing the reform of the education system, based on SEDS 2020.</p> <p>It is, among others, focused on the establishment of the legal and institutional framework for the NQF, including the Law on NQF, the Qualifications Agency, NQFS Council and Sectoral Councils (SCs), which will support the development of the social partnership on the national level and link education and the labour market.</p> <p>Also, the project supports the teacher training for the implementation of learning outcome-based curricula, with the goal to implement measures that will improve students' competencies and their prospects on the labour market.</p>

Austrian Government, through its donation, also, supporting development, implementation and promotion of dual profiles in trade sector with the support of Austrian companies and CCIS that is the direct beneficiary of the mentioned donation. Other focuses of this support are the implementation of the Law on dual education, training of in-company instructors and licencing of the companies that are involved in dual education.<sup>35</sup>

Also, Centre for Vocational Education and Adult Education and the Serbian Chamber of Commerce, participate in the Transnational Danube Programme in the project 'Learning by Doing - Targeted capacity building of VET partnerships in the Danube Region for the effective modernization of VET systems'. The aims of this project are an improvement of the capacities of social partners involved in vocational education and training through strengthening national and international partnerships, enabling the creation of a system in which qualifications are aligned with the needs of the labour market. Within this project, various promotional activities are organized in order to strengthen the capacity for implementing work-based learning in the system of secondary vocational education in Serbia.

<sup>34</sup> <http://noks.mpn.gov.rs/en/sector-reform-contract-for-education-reform-in-serbia-strengthening-links-with-employment-and-social-inclusion/>

<sup>35</sup> <http://pks.rs/Vesti.aspx?IDVestiDogadjaji=25161>

## B. ECONOMIC AND LABOUR MARKET ENVIRONMENT

### B.1: VET, economy and labour markets

#### B.1.1 Labour market situation

SORS data in its Labour Force Survey for 2017 show positive trends in employment during the mentioned year and increase comparing to 2016 – employment rate of those aged 20-64 increased (from 59,1% in 2016 to 61,4% in 2017) as well as employment rate of those aged 15+.

**Table 11. Employment rate (% aged 20-64)**

Year	2015	2016	2017
<i>Total</i>	55,9	59,1	61,4
<i>Male</i>	63,6	66,3	68,5
<i>Female</i>	48,2	51,9	54,4

Source: SORS - LFS

**Table 12. Employment rate (% aged 15+)**

Year	2015	2016	2017	3 <sup>rd</sup> Quarter 2018
<i>Total</i>	42,5	45,2	46,7	49,2
<i>Male</i>	50,2	52,8	54,2	57,3
<i>Female</i>	35,3	38,1	39,7	41,7

Source: SORS - LFS

In the third quarter of 2018 the greatest employment rate was noted in Šumadija and Western Serbia region as well as in Belgrade region (51%, and 50,8%), respectively. In Vojvodina, it was 49% and in South Serbia region and Eastern Serbia region, it was the lowest, 45.4%. Even modest, there was, also, an increase in activity rates of those aged 20-64 as well as those 15+ during the reporting period (tables 13 and 14) and inactivity rate was 44,5% in the third quarter of 2018 which present small decrease comparing to the same period of 2017.<sup>36</sup>

The activity rate of the population aged 15 and over in the third quarter of 2018 amounted to 55,5%, where the activity rate of males was 64%, and of females 47,5%.<sup>37</sup>

**Table 13. Activity rate (% aged 20-64)**

Year	2015	2016	2017
<i>Total</i>	68,0	70,0	71,2
<i>Male</i>	76,6	78,0	78,8
<i>Female</i>	59,4	62,0	63,6

<sup>36</sup> Statistical Office of the Republic of Serbia - <http://publikacije.stat.gov.rs/G2018/XlsE/G20181328.xlsx>.

<sup>37</sup> Ibid.

Source: SORS - LFS

**Table 14. Activity rate (% aged 15+)**

Year	2015	2016	2017	3 <sup>rd</sup> Quarter 2018
<i>Total</i>	51,6	53,3	54,0	55,5
<i>Male</i>	60,3	61,8	62,2	64
<i>Female</i>	43,5	45,4	46,3	47,5

Source: SORS - LFS

In terms of employment by wide sectors, the highest percentage of employed workers is employed in the service sector (57,5%), slightly more than a quarter (25,3%) in the industry and 17,2% in the agriculture sector (SORS – LFS, 2018). The decrease in employment in the agriculture sector is probably influenced by economic restructuring and growth of new sectors (e.g. ICT sector). Also, the decrease of employment in agriculture sector should not be perceived as necessarily negative, as the agriculture sector still needs to gain efficiency, employing around 20% of the workforce but contributing just 8% to GDP (ETF, 2018a).

**Table 15. Employment by broad economic sectors (%)**

Year	2015	2016	2017
<i>Agriculture</i>	19,4	18,6	17,2
<i>Industry</i>	24,5	24,4	25,3
<i>Services</i>	56,1	57,0	57,5

Source: SORS - LFS

Of the particular significance for this report is the fact that employment rate of ISCED 3 and 4 graduates, which include VET graduates, in the total population aged 15+ increased for the last few years – from 47,4 in 2015 and 49,8.5 in 2016 to 51,3 in 2017 (table 16).

**Table 16. Employment rate by educational attainment (% aged 15+)**

Year	2015	2016	2017
<i>Total</i>	42,5	45,2	46,7
<i>LOW</i>	24,5	27,8	28,2
<i>MEDIUM</i>	47,4	49,8	51,3
<i>HIGH</i>	58,9	60,5	63,1
<i>Male</i>	50,2	52,8	54,2
<i>LOW</i>	35,1	38,0	39,0
<i>MEDIUM</i>	54,2	56,7	57,8
<i>HIGH</i>	58,9	60,6	63,7
<i>Female</i>	35,3	38,1	39,7
<i>LOW</i>	17,4	21,0	21,1
<i>MEDIUM</i>	39,5	41,7	43,8
<i>HIGH</i>	59,0	60,4	62,7

Source: SORS - LFS

Data also suggest that regional discrepancies in employment and unemployment are still very much present in Serbia because of the urban or rural environment, different attractiveness of industries offered, infrastructure and investments. Also, only 35% of those who changed their residence in 2017 from one municipality or region to another were active persons. Belgrade region and Vojvodina register positive internal migration balance, while region Šumadija and Western Serbia and Southern and Eastern Serbia region reveal a negative score, thus there is a significant risk of deepening skills shortages or oversupply in certain regions/cities (ETF, 2018a).

Bearing in mind all the above mentioned, it could be concluded that improvement of the general economic context influenced the rise in employment and consequently lower unemployment and inactivity rates. I.e. the unemployment rate of the persons 15+ in 2017 was 13.5% and in the third quarter of 2018 it was 11,3%.<sup>38</sup> Observed by regions, the lowest unemployment rate was recorded in Vojvodina (7,9%), followed by Belgrade region (10.2%) and Region of Šumadija and Western Serbia (12,5%). In Southern and Eastern Serbia regions the situation is less favourable since there was recorded the greatest unemployment rate -15,2%.

**Table 17. Unemployment rate (% aged 15+)**

Year	2015	2016	2017	3 <sup>rd</sup> Quarter 2018
<i>Total</i>	17,7	15,3	13,5	11,3
<i>Male</i>	16,8	14,6	12,8	10,5
<i>Female</i>	18,8	16,1	14,3	12,2

Source: SORS - LFS

However, and despite the improvement, the unemployment rate in Serbia is still almost twice higher than in the EU-28 (SIPRU/Government of the Republic of Serbia, 2018).

As for the unemployment rate by educational attainment, even national statistic does not present graduates from VET profiles as a separate category within a group of unemployed within the labour force, it is to assume that the majority part of those with a medium level of education are VET graduates (bearing in mind enrolment policy and annual number of VET graduates). Therefore, as visible from the table below, the unemployment rate is highest among those who completed secondary school (ISCED 3 and 4).

**Table 18. Unemployment rate by educational attainment (% aged 15+)**

Year	2015	2016	2017
<i>Total</i>	17,7	15,2	13,5
<i>LOW</i>	15,0	12,4	11,0
<i>MEDIUM</i>	19,4	16,7	14,8
<i>HIGH</i>	15,3	13,9	12,2
<i>Male</i>	16,8	14,6	12,8
<i>LOW</i>	15,8	13,6	11,1
<i>MEDIUM</i>	17,9	15,4	13,9
<i>HIGH</i>	14,1	12,8	11,0
<i>Female</i>	18,8	16,1	14,3
<i>LOW</i>	13,9	11,1	10,9
<i>MEDIUM</i>	21,6	18,6	16,0
<i>HIGH</i>	16,4	14,8	13,3

Source: SORS - LFS

Although in the course of 2017, the youth population recorded moderate growth in employment rate (table

<sup>38</sup> Statistical Office of the Republic of Serbia - <http://publikacije.stat.gov.rs/G2018/XlsE/G20181328.xlsx>.

19), the position of young people on the labour market seems still unfavourable, with a three-fold lower employment rate compared to the population aged 25 - 64. The unemployment rate among the youth in Serbia of 31.9% recorded in 2017 (table 20), was among the highest in Europe.

**Table 19. Youth employment rate (% aged 15-24)**

Year	2015	2016	2017
<i>Total</i>	16,6	19,7	20,9
<i>Male</i>	21,2	24,9	26,1
<i>Female</i>	11,7	14,2	15,3

Source: SORS - LFS

**Table 20. Youth unemployment rate (% aged 15-24)**

Year	2015	2016	2017
<i>Total</i>	43,2	34,9	31,9
<i>Male</i>	40,1	32,2	29,2
<i>Female</i>	48,2	39,5	36,3

Source: SORS - LFS

In the third quarter of 2018 the **number of unemployed was decreased** by 12,800, i.e. 18% relative to the same period last year.<sup>39</sup>

Also, it should be noted that depending on a strict or less strict definition of formal/informal employment, the **informal employment rate** in 2017 ranges from 20.7% to 27.6%, but in any case, there is a constant decrease in numbers of informal workers (e.g. in the third quarter of 2018 informal employment rate was 20,4%).<sup>40</sup> (SORS – LFS, 2018). The drop-in agriculture employment (a sector still dominated by informal contractual relationships, e.g. contributing family members) may partly explain this trend (ETF, 2018a).

**The number of young people who are not in education, employment or training (NEET) is still high.** Labour Force Survey data show a downward trend (table 21) in a number of young people who are not in education, employment or training over the past few years, this is still low in comparison to other European countries. I.e. According to Eurostat data for 2017, the NEET rate in EU28 was 11.5 percent while in Serbia in the same year it was 17,2 percent.

**Table 21. Persons not in employment, education or training-NEETs (% aged 15-24)**

Year	2015	2016	2017
<i>Total</i>	19,9	17,7	17,2
<i>Male</i>	20,2	17,2	17,1
<i>Female</i>	19,6	18,3	17,3

Source: SORS - LFS

In the third quarter of 2018 NEET rate was 16,3% in population from 15 to 25, and in the population aged from 15 to 29, NEET rate was 19%.<sup>41</sup>

The number of young people aged 18-24 whose highest level of completed education is primary education or less and who did not attend any formal or non - formal education (early school leavers) in 2017 amount 33200. Their share in the population aged 18-24 constantly decreases, from 8,3 % in 2014 to 6,2 % in

<sup>39</sup> Statistical Office of the Republic of Serbia - <http://publikacije.stat.gov.rs/G2018/XlsE/G20181328.xlsx>.

<sup>40</sup> Ibid.

<sup>41</sup> Ibid.

2017 (SORS - LFS, 2018).

The long-term unemployment rate is in continuous decline – from 11,3% in 2015 to 8,2% in 2017, which influenced that long-term unemployment ratio in 2015 was 64% while it was 60,5% in 2017.

**Table 22. Long-term unemployment rate (% aged 15+)**

Year	2015	2016	2017
<i>Total</i>	11,3	9,9	8,2
<i>Male</i>	10,6	9,5	7,9
<i>Female</i>	12,2	10,5	8,5

Source: SORS - LFS

**Table 23. Long-term unemployment ratio (% aged 15+)**

Year	2015	2016	2017
<i>Total</i>	64,0	65,1	60,5
<i>Male</i>	63,0	65,1	61,4
<i>Female</i>	65,2	65,1	59,5

Source: SORS - LFS

### B.1.2 Specific challenges and opportunities: skill mismatch

According to SEDS 2020, the Serbian VET system does not provide the qualifications necessary for improving the economy and, consequently, is not harmonised with labour market needs. Also, Economic Reform Programme for Serbia 2017-2019 underlined that Serbian graduate students are lacking functional knowledge and that it is difficult for them to get the first job as a result of the lack of practical training or practical experience.<sup>42</sup>

Recent studies that analysed school to work transition concluded that skills gained by students during their education are inadequate for the workplace and that reasons might be outdated curricula, insufficient practical learning and support prior and during transition phase (such as career guidance and counselling, internships/apprenticeships opportunities, active employment measures targeted on young graduates' needs; insufficient social services and protection for those at social risk etc.) (ETF, 2018a).

### B.1.3 Specific challenges and opportunities: migration

As a consequence of low demand or insufficiently attractive work conditions (particularly salaries), Serbia for the years experiencing high emigration of its workers, especially those with qualification and skills allowing them to easily get to work abroad, with more attractive wages (ETF, 2018a). This holds especially true for those who have completed engineering and computer science degrees. This is confirmed in the newest studies where is stated that expert from the medicine and healthcare sector, as well as engineers, information-technology experts, and qualified workers with vocational education (drivers, welders, electricians), are leaving Serbia in massive numbers. The Organisation for Economic Cooperation and Development (OECD) projects that Serbia will lose around \$9 billion as a direct result of brain drain in the science, technology, and innovation sectors. This figure is based on the number of people departing and the calculated costs of their education, as well as the fact that immigrants working in the technology sector normally earn above-average wages (European Council on Foreign Relationships, 2018).

According to the World Bank data, migrant remittance inflows in Serbia were as following - 3.371 US\$ mil.

<sup>42</sup> [http://www.mfin.gov.rs/UserFiles/File/strategije/ERP%202017%20-%202019%20final\\_Eng.pdf](http://www.mfin.gov.rs/UserFiles/File/strategije/ERP%202017%20-%202019%20final_Eng.pdf)

In 2015, 3.205 in 2016 and 3.387 in 2017.<sup>43</sup>

During February 2019, Serbian Government established Coordination body for monitoring of economic migrations in the Republic of Serbia with the aim to monitor the situation and to coordinate work of different state bodies involved in different aspects related to economic migrations. This body is going to be, also, in charge for the development of strategies and activities related to prevention of brain drain, activities dedicated to returning of migrated experts and creation of an economic environment that will attract foreign experts to Serbia.

#### B.1.4 Specific challenges and opportunities: digital transformation

Even during 2018 significant efforts in improvement of schools' ICT infrastructure and training of teachers to use ICT in teacher process were put in there is no precise data on how many schools and teachers are using ICT in their everyday job. However, at least in the area of infrastructure, this presents improvement bearing in mind data from 2016 which showed that 40% of computers in VET schools in Serbia were eight or more years old. Additionally, it should be noted that digital competencies are still explicitly recognized in vocational education only in the case of those educational profiles related to information and communication technologies. However, the final exam for 59 professional profiles includes references to the assessment and evaluation of digital skills (ETF, 2018b).

#### B.1.5 Strategic policy responses involving education and VET

One of the crucial measures for increasing the relevance of education in Serbia was the adoption of the **Law on the National Qualifications Framework** in 2018 since this law objectives are the development of qualifications standards based on the labour market demands and the society requirements. It is, also, expected that the NQFS will support the implementation of lifelong learning and labour force mobility.

Also, during 2017, **the Law on Dual Education** was adopted in order to support an increase of the scope and quality of students professional practice as well as to involve the companies in the design and implementation of the curricula – all with the aim to ensure higher employability of youth.

In 2017, the Government adopted **Strategy for Development of Information Technology Industry for 2017-2020** which, among others, assumes development of human capital and building the innovation infrastructure (Government of the Republic of Serbia, 2017).

Every year the Government of the Republic of Serbia is developing **Economic Reform Programme – ERP**. One of the strategic goals in this document is the development of qualifications oriented toward labour market needs, and consequently, development and implementation of dual education activities (e.g. establishment of analytical system for monitoring and evaluation of dual and entrepreneurship education, development of on qualification standards-based curricula, conduction of different analyses related to dual education, implementation of promotional activities related to dual education, etc.). During the first quarter of 2019, ERP 2019-2021 will be adopted by the Serbian Government and, after that, delivered to the European Commission. Also, the **Employment and Social Reform Programme (ESRP)** was adopted by the Government in 2016 as the main mechanism for dialogue on priorities in the areas of social policy, social inclusion and employment. Therefore, the European Commission monitors the Programme implementation process on an annual level through annual progress reports, meetings and conferences.

Also, the **2016 Strategic Planning Document for Human Resources and Social Development** identifies five objectives for IPA support in Serbia with a goal to improve socio-economic development in the country based on coherent links between employment, a market economy, education and social inclusion. Two of the objectives include VET and labour market reform: supporting education reform by improving the quality and relevance of education, by developing qualification standards that better meet labour market needs); and enhancement of employment and employability through targeted measures (CEDEFOP, 2017).

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<sup>43</sup> <http://www.worldbank.org/en/topic/migrationremittancesdiasporaissues/brief/migration-remittances-data>

All the mentioned strategic and policy responses are closely connected with strategic and policy documents from the other sectors, e.g. with the National Employment Action Plan and the Action Plan for the Implementation of the Strategy for Social Inclusion of Roma in the RS for the period 2019-2020.

### B.1.6 The role of VET in remedies through active labour market policies (ALMPs)

National Employment Strategy 2011-2020 and accompanied annual action plans for employment are the main strategic documents related to employment and skills development. The Ministry of Labour, Employment, Veteran and Social Affairs (MOLSV) and the National Employment Service (NES) are in charge for all the employment issues including Active labour market policy (ALMP) and in implementation of some activities they are supported by some of the institutions from the education system (e.g. MoESTD and IIE are giving accreditation to PROAE, etc.).

NES support to jobseekers is tailored in accordance with a personal profile of the job seeker, but the priority in assistance is given to those who have difficulties in finding employment, young persons, redundant employees, persons with disabilities, persons with no qualifications, low-skilled persons and long-term unemployed persons. Some of the NES services and activities implemented within Active Labour Market measures offered are training, retraining, personalised counselling, subsidize employment schemes, start-up incentives, etc. Nevertheless, even some activities regarding the improvement of the quality, monitoring and evaluation of active labour market measures are done, there is still room for improvement in the area of funding and jobseekers' coverage (European Commission, 2018).

**Table 24. Participants in labour market services**

	2014		2015		2016		2017	
	No.	No. of employed	No.	No. of employed	No.	No. of employed	No.	No. of employed
<b>Participants in LM services</b>	636.762	168,700	713.759	214,799	677.435	220,361	640.646	234,031
<b>Participants in LM measures, by measures</b>	22.159	9,381	40.349	22,747	37.124	21,298	41.167	21,894
<i>Training</i>	4.922	1,242	9.821	4,222	9.687	4,391	12.426	4,716
<i>Employment incentives</i>	2.937	1,733	4.579	3,788	4.633	3,937	4.736	4,509
<i>Direct Job creation</i>	2.038	986	11.816	5,621	8.607	3,472	9.929	3,737
<i>Start-up incentives</i>	12.262	5,420	14.133	9,116	14.197	9,498	14.076	8,932
<b>Number of registered jobseekers</b>	741.905		724.094		700.947		618.826	
<b>Number of job vacancies</b>	42.281		72.390		71.851		81.156	

Source: NES

In terms of providers of non-formal adult education, in the fall of 2018, there were 100 providers accredited as publicly-recognised organizers of adult education (PROAE) implementing various adult education programmes.<sup>44</sup>

Data from National Employment Action Plan for the year 2019 stated that for implementation of planned programmes and active labour market measures in 2019, within NES financial plan, around 33,000.000 EUR is foreseen while for implementation of professional rehabilitation and encouraging employment of disabled people around 4.500.000 EUR (from separated budgetary fund) is planned to be spent. Also, 1,700.000 EUR from IPA 2013 funds as well as 7,500.000 EUR from local resources for the implementation of active labour market policies planned in accordance with local employment action plans.<sup>45</sup>

### B.1.7 Identification of skills demand and its bearing on VET provision

Labour market information system includes multiple actors and sources of data - Statistical Office of Republic of Serbia, the ministries of education and labour, National Employment Service (through annual employer surveys), research institutes and think tanks. Also, Sector skills councils are in charge of the identification of skills trends and occupational changes. It is important to note that results and findings of the employers' survey done by NES guide planning and targeting of active labour market measures (set out in the Annual Action Plan for Employment) and, hence, contributing to addressing mismatches between supply and demand of qualifications, competencies and skills and allows calculation/projection of occupational needs for the year ahead (ETF, 2018a).

The Government of the Republic of Serbia in July 2018 adopted the Decision on a unique Codex of Codes for entering and encrypting data in the records in the field of labour (Official Gazette of the Republic of Serbia, No. 57/2018). Two parts of this legal document are very important for further development of the NQFS - Codex of occupations and Codex of the level of qualifications. Codex of occupations (list of occupations with appropriate codes) was developed by the Ministry of Labour, Employment, Veteran and Social Affairs (MoLSVA) in cooperation with MoESTD and it is harmonised with ISCO – 08 standard requirements, while Codex of the level of qualifications was prepared by the MoESTD.

Also, during the last months of 2018 2018, with support of GIZ, MoLSVA developed Guide for implementation of the Unique Codex of Codes for entering and encrypting data in the records in the field of labour and started with trainings of different users of this document (employees in NES, employers, Union of Employers, CCIS, IIE, Agency for Qualifications, etc.).

However, the governance system of skills anticipation is still in development phase since there is a room for improvement in the area of application of research findings into forward-looking skills and employment policies and programmes and in ensuring continuity of such activities. E.g. MoESTD is yet to establish appropriate monitoring and evaluation systems and to establish regular graduate tracer system (ETF, 2018a).

As for the system of validation of non-formal and informal learning, and/or recognition of qualifications acquired abroad, including those of migrants and refugees, it is important to underline that Serbian education-related legislation recognise validation of non-formal and informal learning even system itself is still in development (expected to be established soon bearing in mind that the Law on NQFS is adopted), but Serbian ENIC/NARIC Centre, as the unit of MoESTD, is fully operational. ENIC/NARIC Centre Serbia provides various sorts of information on higher education recognition procedures in Serbia and, from October 2015, it is in charge of Professional recognition procedure.

For academic recognition procedure, relevant universities in co-operation with faculties in Serbia are in charge.

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<sup>44</sup> <http://www.mpn.gov.rs/obrazovanje-odraslih/>

<sup>45</sup> <https://www.minrzs.gov.rs/lat/plan-zaposljavanja.html>

## B.1.8 Supporting migrants and refugees through VET

During 2017, MoESTD established the Working Group for the support to the education for refugees and migrants, which is, apart from the representatives of relevant sectors within the Ministry, composed of representatives from the Institute for the Improvement of Education and the Institute for Education Quality and Evaluation, school management, school mentors, Danish Refugee Council, Centre for Educational Policy and UNICEF office in Serbia, and the group is active in improvement of access and implementation of migrant students' education.

As for the procedures for professional qualifications recognition, it is in the domain of ENIC/NARIC Centre Serbia, so the same centre is, also, in charge for such procedure in the case of migrants/refugees. In brief, ENIC/NARIC Centre is providing at its website general recommendations related to such procedures<sup>46</sup> but the concrete implementation is done case by case.

## B.2: Entrepreneurial learning and entrepreneurship

### B.2.1 Job creation and VET

There is no strong evidence if and, if yes, how VET in Serbia country contribute to job creation.

However, data suggest that the incidence of self-employment in 2017 decreased in total as well as for both male and female compared to 2016 (table 25). The situation is pretty much the same when it comes to the incidence of vulnerable employment (table 26).

**Table 25. Incidence of self-employment**

Year	2015	2016	2017
<i>Total</i>	30,2	31,7	30,6
<i>Male</i>	34,2	35,3	33,8
<i>Female</i>	24,7	27,0	26,4

Source: SORS - LFS

**Table 26. Incidence of vulnerable employment**

Year	2015	2016	2017
<i>Total</i>	26,3	28,2	27,2
<i>Male</i>	29,2	30,7	29,5
<i>Female</i>	22,4	25,1	24,3

Source: SORS – LFS

In analyses vulnerable employment, the Third National Report on social inclusion and poverty reduction underlined that the share of vulnerable employment in Serbia is still considerable; the share of part-time workers is 11%, but as many as 48.6% of these people are unable to find a full-time job contrary to their wishes; almost one in four paid workers are engaged in temporary forms of work (fixed-term, temporary or seasonal jobs) (SIPRU/Government of the Republic of Serbia, 2018).

Therefore, bearing in mind that the number of legal entities, entrepreneurs and small companies in The Serbian Business Registers Agency is significantly increased in 2018,<sup>47</sup> as well as data related to the incidence of self-employment and incidence of vulnerable employment in above-presented tables, it could

<sup>46</sup> <http://www.enic-naric.net/recognise-qualifications-held-by-refugees.aspx>

<sup>47</sup> <http://www.apr.gov.rs/%D0%A0%D0%B5%D0%B3%D0%B8%D1%81%D1%82%D1%80%D0%B8.aspx>

be assumed that VET has had a certain influence on job creation through self-employment of its graduates.

## B.2.2 VET policies to promote entrepreneurship

Research on graduates' transition to the labour market has been so far limited to periodical school to work transition studies, such the ones led by the International Labour Organisation, in collaboration with the Statistical Office of Serbia; or the European Commission (DG Education) study on university graduates' pathways towards employment. To date, Serbia does not have yet in place a system of regular monitoring of education outcomes (i.e. tracer studies), such as graduates' placement in employment or overall labour market status; usage of skills at a workplace; difficulties encountered during job searching phase or strategies to find employment. A pilot graduates' tracking study is currently implemented with the aim to mainstream the practice in future (ETF, 2018a) and there is an initiative of Implementation Group 2 of the Secretariat for public policies for implementation of the Government Action plan to introduce tracer study of VET graduates who had entrepreneurship during secondary school.

As it comes out of the SBA assessment, lifelong entrepreneurial learning policy is integrated into Education Strategy until 2020, Law on the Foundations of the Education System, Law on Pre-school and Primary Education, Law on Secondary Education, SME Strategy 2015-2020, Law on Dual Education, the law on Youth. At the level of education planning and implementation, the focus needs to be on clarifying the conceptual approaches and clearly distinguishing dual education and entrepreneurial learning.

Amendments to the Law on Secondary Education provide clearer support for the establishment of student cooperatives in order to encourage the development of a positive student attitude towards work and professional orientation, linking teaching with the world of work, developing an awareness of responsibility for commitments, and developing a positive attitude towards teamwork and entrepreneurship.

Also, what should be noted is that subject entrepreneurship is one of the mandatory subjects in all the VET profiles in all VET schools.

In 2018, the Rulebook on Student Cooperatives (Official Gazette of the Republic of Serbia no. 31/2018) was adopted, regulating the area of importance for the improvement of the relevance of education in Serbia. Student cooperative can carry out production, trade and service activity, that is, carry out community and humanitarian services. The activity of student cooperative is a part of educational work and its goal is to enable students to master basic elements of the processes of production and service provision; to provide professional guidance and develop entrepreneurial spirit; to create and foster positive attitude towards the work and creation; to instil work habits; raise awareness of collective work, cooperation and mutual assistance and solidarity; as well as to contribute to organization and development of school, local community and living environment.

'Student enterprise' programme is used as an extracurricular activity in over 200 vocational secondary schools. Student enterprise allows students to acquire skills in market economy and entrepreneurship through programmes of the Junior Achievement organization and to run their enterprises from their establishment to drafting of reports and closing of the enterprise. The students are guided by teacher mentors who have been trained by the above organization which is accredited by the IIE. European Commission Enterprise Directorate General recognised this programme as the best method when it comes to students' learning entrepreneurship.<sup>48</sup>

## II. 'Open floor'

A.2.1 – It is important to mention that there are also other laws and several rulebooks that are focused on the particular issues within education and more precisely regulate areas that are mentioned in laws in general terms. E.g. Law on Textbooks (Official Gazette of the Republic of Serbia, no. 27/2018); Law on students' standards (Official Gazette of the Republic of Serbia, no. 55/2013); Law on Educational Inspection (Official Gazette of the Republic of Serbia, no. 27/2018); The Rulebook on general standards of achievement for the end of general secondary education and secondary vocational education and training in the field of general education subjects (Official Gazette of Republic of Serbia, no. 117/213); The Rulebook on enrolment in secondary school (Official Gazette of the Republic of Serbia, no. 23/2018); The Rulebook on

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<sup>48</sup> <http://www.ja-serbia.org/sr/programi/programi-za-srednje-skole>

professional-pedagogical supervision (Official Gazette of the Republic of Serbia, no. 34/2012); The Rulebook on the evaluation of the quality of institutions (Official Gazette of the Republic of Serbia, no. 14/2018); The Rulebook on the continuous professional development of teachers, educators and professional associates (Official Gazette of the Republic of Serbia, no. 81/2017).

In order to precise some of the Law on dual Education requirements, during 2018 **The Rulebook on training program, detailed terms and other matters related to passing the instructor's licence examination** (Official Gazette of the Republic of Serbia, no. 70/2018), **The Rulebook on placement of students during work-based learning in dual education profiles** (Official Gazette of the Republic of Serbia, no. 102/2018) and **The Rulebook on the work method, activities and composition of the Career Guidance and Counselling Team in secondary schools that implement dual education** (Official Gazette of the Republic of Serbia, no. 2/2019), are adopted. Additionally, one of the acts of CCIS also related to dual education is developed and adopted (**The Rulebook on organisation, composition and operation of the Committee for enterprises Verification of Fulfilment of Requirements for Delivery of Work-Based Learning** - Official Gazette of the Republic of Serbia, no. 46/2018) while for two more are yet to be adopted - **The Rulebook on the implementation of training, the composition of the Committee on the exam for obtaining the instructor license, the issuance of the license and the registry of the licenses issued** and **The Rulebook on costs of training and taking the instructor examination**.<sup>49</sup>

Regarding issues mentioned under A.3.2 Migration and refugee flow, it is important to note that in the 2018 Report, the European Commission noted that Serbia played an active and constructive role in the refugee and migrant crisis, as well as having achieved effective cooperation with neighbouring countries and member states. It was concluded that the priorities for the future actions are, among others, the implementation of the new Law on Asylum and Temporary Protection, the Law on Foreigners and the Law on Border Control, as well as the adoption and implementation of the strategy and action plane for the suppression of irregular migration<sup>50</sup> but education and integration into labour market of migrants, are not mentioned as priority.

B.2.2 – During 2016/17 SIPRU supported innovative model for youth employment in Kragujevac that assumed, among other, strengthening the capacities of stakeholders in the public, private and civil sector in the creation of innovative and sustainable solutions for increasing youth employment and employability.<sup>51</sup>

### III. Summary and analytical conclusions

Between two Torino process reports, **labour market situation in Serbia improved** - employment showed positive trends and the employment rate of ISCED 3 and 4 graduates increased, activity rates increased while the long-term unemployment, inactivity rates and informal employment decreased even regional disparities are still evident. The share of employees in services is increased while the share of employed in agriculture is decreasing, but despite these trends, the number of employed in agriculture in Serbia is four times higher than the EU-28 (3.9%).

However, **the number of unemployed youths in Serbia is still high** which means that, in comparison with the general population, youth are at a disadvantaged position, with an employment rate more than twice below the general population and an unemployment rate more than twice above the overall population. Within the youth but also in population as general, **the position of women in the labour market is considerably less favourable** than their male peers – e.g. the young man employment rate was 21,5% and just 13,5 % for young women (SORS – LFS, 2018). This labour market vulnerability is, probably, triggered by an accumulation of disadvantages such as low educational attainment, poverty, living in rural areas, being a member of Roma ethnic group, disability/lower work capacity (ETF, 2018a).

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<sup>49</sup> <http://www.mpn.gov.rs/dokumenta-i-propisi/zakonski-okvir/>

<sup>50</sup> [http://www.mei.gov.rs/upload/documents/eu\\_dokumenta/godisnji\\_izvestaji\\_ek\\_o\\_napretku/izvestaji\\_ek\\_o\\_srbiji\(1\).pdf](http://www.mei.gov.rs/upload/documents/eu_dokumenta/godisnji_izvestaji_ek_o_napretku/izvestaji_ek_o_srbiji(1).pdf)

<sup>51</sup> [http://sociojalnoukljucivanje.gov.rs/wp-content/uploads/2018/10/Periodic\\_evaluation\\_of\\_the\\_local\\_youth\\_employment\\_initiative\\_programmes\\_2018.pdf](http://sociojalnoukljucivanje.gov.rs/wp-content/uploads/2018/10/Periodic_evaluation_of_the_local_youth_employment_initiative_programmes_2018.pdf)

Also, **Serbia is still suffering from an occupational mismatch and a system of skills forecast is yet to be fully developed.**

As for population statistic, there is a **strong trend of demographic decline** and a **low percentage of the youth population** in the population aged from 15 to 64 while the **trend of high emigration of qualified workers continues** which negatively influencing the social and economic situation. Serbia is, also, one of the countries refugees are just passing to their way to Western Europe countries.

**Significant steps are undertaken in the field of the country digitalisation and digital transformation of the country.**

In the field of education, still **more than 70% of students enrolling VET schools, modernisation of VET profiles continued including continuation of work on increase of number of dual education profiles and schools** that are implementing such profiles since dual education is still high at the political agenda and there is still strong donor support in the field of dual education and VET in general.

Most of the students from vulnerable groups, as well as migrant students, are enrolled in VET schools.

During the reporting period **for the first time in Serbia the Law on Dual Education and the Law on the National Qualifications Framework in Serbia are adopted** as support in processes of harmonisation of the education system to the labour market needs, implementation of lifelong learning and labour force mobility. According to the mentioned laws some of for institutions and bodies that were expected to be established a long time ago, are finally **established – NQF Council, NQF Agency and Sector Skills Councils.**

Nevertheless, even research on graduates' transition to the labour market has been so far limited to periodical school to work transition studies, according to available data, **skills gained by students during their education seem to be inadequate for the workplace** due to the still outdated curricula of a number of profiles and insufficient practical learning.

Additionally, **lifelong learning is still not recognised enough** - the number of young people who are not in education, employment or training is still high and participation in lifelong learning is decreasing. Primary education programmes are still predominant among the adult population, which emphasizes its compensational and poverty reduction role.

## C. SOCIAL ENVIRONMENT AND INDIVIDUAL DEMAND FOR VET

### C.1 Participation in VET and lifelong learning

#### C.1.1 Participation

Participation in secondary education in Serbia is still much lower among children from vulnerable groups, i.e. children from the poorest families (68.2%) and Roma (22% and only 15% of girls).<sup>52</sup>

Regarding VET, some of the VET profiles are very 'popular' among students, and within these profiles number of students that compete for one place is around 5. Mentioned profiles are mostly in the following field of work: health care and social protection, economy and tourism including some of the 3-year profiles as cook, confectioner and hair dresser. Parallely, there are profiles that constantly suffers from lack of students' interest and those profiles are from the civil engineering, agriculture and textile field of work. In general, least attractive profiles are 3-year profiles from the above-mentioned sectors, even there is certain positive progress in students' interest caused by the introduction of dual profiles in 3-year education.

Changes in the enrolment structure during the last few years is presented in table 27.

**Table 27: Structure of enrolment of students in VET schools in school years 2016/17, 2017/18 and 2018/19**

Field of work	Duration of the profile	Planned number of students – 2016	Planned number of students – 2017	Planned number of students – 2018	Difference 2018 - 2016 (%)
Economy, law and administration	4	9060	8490	8280	-8.6
Electrical engineering	3	1535	1455	1510	-1.6
	4	6694	6740	7070	5.6
Geodesy and civil engineering	3	300	345	555	85.0
	4	1768	1678	1690	-4.4
Geology, mining and metallurgy	3	160	170	160	0.0
	4	270	210	210	-22.2
Chemistry, non-metals and graphics work	3	120	80	90	-25.0
	4	2710	2532	2490	-8.1
Hydro-meteorology	4	60	60	60	0.0
Mechanical engineering and metal processing	3	3140	3206	3310	5.4
	4	4848	4606	4646	-4.2
Personal services	3	1360	1342	1330	-2.2
	4	30	30	30	0.0
Agriculture, food production and processing	3	1750	1770	1925	10.0
	4	3760	3550	3400	-9.6
Transport	3	1235	1250	1300	5.3

<sup>52</sup> UNICEF data

	4	2540	2576	2526	-0.6
Forestry and wood processing	3	270	360	270	0.0
	4	750	660	600	-20.0
Textile and leather	3	360	532	795	120.8
	4	960	780	720	-25.0
Trade, catering and tourism	3	3630	3744	3855	6.2
	4	3260	3095	3020	-7.4
Health and social protection	3	210	210	360	71.4
	4	5480	5504	5450	-0.5
Grand Total		56260	54975	55652	-1.1

Source: MPNTR

Specific challenges related to participation are occurred in rural parts of Serbia that have a very limited number of schools and profiles they offer, which negatively influencing students' enrolment choices. Later, inadequate and 'forced by circumstances' choice leads to a lot of negative consequences for students, e.g. lack of motivation and dropout and for the local labour market – oversupply of some qualifications.

Dropout rates in secondary education are particularly high in three-year vocational education, which is more often attended by students from vulnerable groups (MoESTD, 2018).<sup>53</sup>

Also, as mentioned in the previous chapters, Lifelong Learning (LLL) remains low in Serbia – only 5% compared to the EU benchmark of 15% in 2020.

### C.1.2 VET opportunities for vulnerable and marginalised groups

Law on Secondary Education (Official Gazette of the Republic of Serbia, no. 55/2013 and 101/2017, Article 12) defined students and adults from vulnerable groups as those who, because of physical or mental disabilities, specific difficulties in learning, social deprivation and other reasons need additional support in education. The goal of additional support in education is to achieve optimal inclusion of students and adults into regular educational work, independence in peer collective and their progress in education and preparation for the world of employment.

During the reporting period, Serbia has been successful in the implementation of activities that provide learning opportunities for students from vulnerable and marginalised groups. E.g. in 2017/18 school year, 1,969 students from the Roma population were enrolled (mainly in VET) secondary schools through affirmative measures. This is close to five times as high as in the school year 2015/2016 when 422 students were enrolled (MoESTD, 2018).

The Rulebook on student loans and scholarships was amended in 2017 by changes that established milder criteria for granting scholarships and loans to members of vulnerable social groups. During the 2017/2018 school year, 303 students were granted scholarships for Roma students. The Roma Education Fund, in cooperation with MoESTD, after the competition for Roma secondary school students with an average grade of 2.5-3.5, approved 500 scholarships for the school year 2017/2018. Support for inclusion, learning and advancement for these students is provided by teachers-mentors who have been trained for mentoring. Mentors provide support to students and monitor student progress, the regularity of attendance and extracurricular activities. Students who are part of the mentoring support system have improved their school success and attend school regularly. In school year 2017/2018, 201 teacher-mentor was hired to provide support to students of the Roma national minority (MoESTD, 2018).

<sup>53</sup> This MoESTD Report clearly stated that official SORS methodology for calculating the number of dropouts is not optimal and that the practice of registering the number of students by the institutions is rather unreliable, thus resulting in having no valid data on the dropout rate, and that dropout is much higher than SORS reports.

In school 2018/19 year, MoESTD granted 1,648 scholarships to secondary students from vulnerable, as well as 598 scholarships to students that enrolled educational VET profiles that are in high demand by the labour market. One of the conditions for granting such loan was signed a contract between student and company on the implementation of work-based learning. These scholarships are awarded from the state budget as well as from the budget of local self-governments as a kind of company support.

As for adult education, in order to support adults without qualifications, a model of Functional Elementary Education of Adults (FEEA) is developed and implemented in more than 70 schools in Serbia. This model assumes that the third (last) cycle of FEEA contains vocational training for simple occupations. Such training is recognised by NES and by the labour market.

### C.1.3 Policies to improve VET access and participation

The concept promoted in **SEDS 2020** is highly inclusive with a lot of strategic directions dedicated to equity and equality in education. Also, under one of its overarching principles, SEDS 2020 underlined special policies and measures to be implemented in order to support the inclusion of Roma and other students from vulnerable groups into the education system. The same approach is the foundation of the **Strategy for Social Inclusion of Roma for the 2016-2025** which is adopted in 2016.

MoESTD representatives, currently, through **Sector Reform Contract: Education Reform in Serbia – strengthening links with employment and social inclusion, IPA II (2014 – 2020)**, implementing different activities in order to achieve one of the most important expected results within this contract - improved conditions for participation of Roma pupils (boys and girls) in pre-university education (including reduction of drop-out rates).

At the same time, as mentioned above, the participation of students in VET is particularly challenging in rural parts of the country and in small municipalities, and some of the current policies and practices are rather part of the problem than of the solution. I.e. rationalisation of the educational costs that are currently implemented by national authorities results with cancelling of small classes and schools with a small number of students, which affects students in mentioned environments. At the same time, schools are usually planning educational offer in the way to secure teachers jobs rather than to plan it in accordance with the local labour market needs.

In recent years, additional attention has been dedicated to preventing students from dropping out of the education system, thus the changes of LFES from 2017 prescribed that the school should provide additional support to children and students who are at risk of dropout by the development, adoption and implementation of the individual dropout prevention plan for the students that are identified as those under risk of dropout. LFES also regulates the obligation of the school by which if the student does not attend classes, the parents should be notified, and in case of their inadequate response, also notify the local self-government and the competent social welfare service.

### C.1.4 Promoting VET access and participation for vulnerable and marginalised groups

The Law on Amendments to the Law on Secondary Education (Official Gazette of the Republic of Serbia, No. 55/2013 and 101/2017) recognizes the importance of providing additional support for students at risk of early school leaving, and that individuals or groups of people can enrol in secondary school under more favourable conditions in order to achieve full equality in the acquisition of education.

Therefore, from the school year 2017/18, enrolment of Roma students under more favourable conditions is prescribed by the Rulebook on Enrolment of students in Secondary School (Official Gazette of the Republic of Serbia, no. 38/17). The Rulebook defines that the primary school starting from the seventh grade takes measures to inform parents or guardians of students of the Roma national minority about the criteria and procedure for enrolment under more favourable conditions. Informing parents or guardians is also implemented by the National Council of the Roma National Minority.

Additionally, there are other different affirmative measures dedicated to supporting enrolment in secondary and higher education and reducing the drop-out rates of Roma and other students from vulnerable groups. The measures include:

- Introduction of pedagogical assistants;
- Development and implementation of individualised education plans;
- Development and implementation of measures of anti-discrimination, desegregation and protection from violence, abuse and neglect;
- Involvement of Roma parents in the work of educational institutions;
- Introduction of education in Roma language, study of Roma language and cultivation of Roma identity and culture;
- Provision of additional educational, health and social assistance;
- Implementation of activities related to the prevention of early school leaving;
- Provision of scholarships, loans and student residences;
- Securing free textbooks;
- Implementation of FunctionalElementary Education of Adults model.<sup>54</sup>

Career guidance and counselling activities are, also, perceived as an important type of support to all students in making a career decision and recently the role of career guidance as a mechanism for prevention of drop out of students from marginalised and vulnerable groups has been especially emphasized.

### C.1.5 Flexible VET provision in support of participation in VET

The adoption of the Law on Adult Education (Official Gazette of the Republic of Serbia No. 55/2013) and the Law on the National Qualifications Framework RS (Official Gazette of the Republic of Serbia, no. 27/18) provides a legal framework for establishing mechanisms that enable a more flexible way of acquiring competencies and qualifications through the system of non-formal education and through the process of recognition of prior learning.

A procedure has been established for the accreditation of publicly recognized adult education providers for shorter training programmes and for organizations that conduct a procedure for recognizing prior learning in accordance with established standards.

There are conditions for issuing and for the realization of partial qualifications through the process of accreditation, i.e. approval of the acquisition of the status of PROAE. The evaluation of the programme submitted by the provider for accreditation defines the type of public document that is issued to the participant after the mastered programme. Programmes are assessed in accordance with the adopted standard of qualification. The provider grants to the participant a certificate on the achieved standard of qualification as a whole, that is, the certificate on the partially achieved standard of professional competences (with clearly stated units of competence), on the prescribed form.

Non-formal adult education programmes for acquiring professional competences or qualifications are defined on the basis of estimated labour market needs, i.e. forecasted needs of employers and educational characteristics of unemployed persons, taking into account priorities and reform processes in the field of economic policy.

The decision of the Minister to approve the status of a publicly-recognized organizer of adult education activities (PROAEA) has so far been received by 32 institutions for a total of 121 training programmes for adults in order to acquire competencies and qualifications required for the labour market.

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<sup>54</sup> Base on review of the Law on the Foundations of the Education System; Law on Pre-school Education; Law on Textbooks and Teaching Aids Act; Law on Primary Education; Law on Secondary Education; Law on Higher Education; Standards for Elementary, Secondary School and University Students Act, guarantee the development of inclusive education for Roma. The Law on the Foundations of the Education System, in a number of Articles (3, 4, 6 and others) clearly states the values, goals, and methods of achieving inclusion of Roma in education. SEDS 2020, under one of its overarching principles underlined special measures for the inclusion of Roma students from early ages to the education system, in parallel with the Strategy for Social Inclusion of Roma for the 2016-2025.

As far as secondary VET schools are concerned, the status of PROAEA among the first was requested and provided by vocational schools within which the Regional Centres for Continuing Education of Adult Education function (34 programmes).

The list of accredited PROAEA is available at MoESTD website.<sup>55</sup>

### C.1.6 Validation of non-formal and informal learning

Recognition, validation and accreditation of non-formal and informal learning are foreseen in the Education Development Strategy 2020, the Adult Education Strategy, the Law on Adult Education and the Law on NQFS. However, apart from the political framework, no further assumptions have been made. In the past period, work was done to harmonize the standards of qualifications and to establish the NQF, which is the basic starting point in the establishment of the recognition of prior learning (RPL) system. Within the NQF, the qualification levels for which certification, procedures, instruments, competent bodies/institutions, legal and sub-legal regulations are possible are defined.

Pursuant to the Law on Adult Education, in the Institute for Improvement of Education, a working group was formed which worked on the development of the Concept of the system of recognition of prior learning in the Republic of Serbia and the proposal of the Rulebook on standards and method of conducting the procedure for recognition of prior learning. The working group consisted of representatives of the Institute for Improvement of Education, Ministry of Education, Science and Technological Development, National Employment Service, Serbian Chamber of Commerce and Employers' Union of Serbia. These documents are continuously improved by establishing a legal framework for their implementation.

The NQFS Law defines that qualifications can also be obtained through the process of recognition of prior learning (levels 1-3, 5 of NQFS and exceptionally level 4 of NQFS).

The NQFS Law defined the procedure for acquiring qualifications through the process of recognition of prior learning. By this procedure, qualification or its parts are getting at a PROAEA through a special procedure in which, in accordance with the standard of qualification, the knowledge, skills and attitudes acquired on the basis of work or life experience are assessed, after which an appropriate public document or certificate is issued, in accordance with the law governing adult education.

Sectoral councils have the authority to propose lists of qualifications by levels and types that can be acquired by recognizing prior learning.

There is still no case of the certification of prior learning of an individual at any NQFS level.

## C.2: Equity and equal opportunity in VET

### C.2.1 Success of learners in VET

The number of graduates for vocational education is decreasing but this should be observed in the light that the number of students enrolled in secondary education is also decreasing due to the negative demographic trends. I.e. national statistic is showing that around 98% of each generation that finalised elementary school in the last decade is continuing education at the secondary level.

**Table 28. Graduates from secondary vocational education by programme and sex**

	2014/15	2015/16	2016/17
<i>Vocational education (3-years programme)</i>	<b>8345</b>	<b>6418</b>	<b>6306</b>
Male	5788	4617	4405
Female	2557	1801	1901
<i>Vocational education (4-years programme)</i>	<b>40964</b>	<b>41620</b>	<b>37474</b>
Male	20111	20339	18419
Female	20853	21281	19055

<sup>55</sup> <http://www.mpn.gov.rs/obrazovanje-odraslih/>

Source: SORS

Nevertheless, as visible from the tables below, graduation rates decreased in the period from 2014 to 2017, even percentage of graduates in 205/16 and 2016/17 was pretty the same – around 9%, while completion rate was around 77% in 3-year profiles and around 87% in 4-year profiles.

**Table 29. Graduation rate (gross) in secondary vocational education by programme and sex (%)**

	2014/15	2015/16	2016/17
<i>Vocational education (3-years programme)</i>	<b>11,1</b>	<b>9,0</b>	<b>9,1</b>
Male	15,0	12,6	12,4
Female	7,0	5,2	5,7
<i>Vocational education (4-years programme)</i>	<b>51,9</b>	<b>55,6</b>	<b>52,4</b>
Male	49,3	52,8	50,2
Female	51,1	55,2	51,9

Source: ETF calculations based on data from SORS

**Table 30. Completion rate in secondary vocational education by programme and sex (%)**

	2014/15	2015/16	2016/17
<i>Vocational education (3-years programme)</i>	<b>78,5</b>	<b>80,0</b>	<b>77,6</b>
Male	78,1	81,1	76,1
Female	79,3	77,3	81,2
<i>Vocational education (4-years programme)</i>	<b>87,9</b>	<b>88,1</b>	<b>86,7</b>
Male	85,1	85,3	83,3
Female	90,7	91,0	90,2

Source: SORS

According to the SORS data, it seems that the percentage of early leavers from education in Serbia in 2017 was just 6,2% while the EU average in the same year was 10%. However, although SORS uses the same methodology as the countries of the European Union and Serbia (Eurostat - Labour Force Survey), the data on ESL in Serbia, for some reason, seem too optimistic when taking into account the data relating to the enrolment and dropout rate.

**Table 31. Early leavers from education (% aged 18-24)**

	2015	2016	2017
<b>Total</b>	7,4	7,0	6,2
<b>Male</b>	7,7	7,2	6,3
<b>Female</b>	7,1	6,7	6,1

Source: SORS – LFS

One of the examples of MoESTD work on a kind of graduate tracer studies is the one implemented during 2017 and related to first-generation of students who were educated within the cooperative model established through the GIZ VET project. Collected data assumed different data on students who were enrolled in eight high schools in June 2014 and took the final exam in June 2017.

Data related to number of students who successfully graduated from the mentioned profiles are presented in the tables below and show that the best result (if we compare number of students enrolled and number of students who successfully graduated) had one school that implemented one profile – industrial mechanic (82%) while 72% of successful completion happened in the case of locksmith – welder profile that was implemented in five school. The weakest result occurs in the case of electrician profile. Data for the second generation of students that enrolled the same profiles is pretty much the

same except for the profile industrial mechanic in which successfulness in graduation dramatically dropped.

**Table 32. Students who enrolled GIZ supported VET profiles in 2014 and successfully completed graduation exam in 2017**

Profile	No. of enrolled students in June 2014	Number of students who successfully completed the graduation exam in June 2017	The ratio of those enrolled and those who successfully completed education
Locksmith - welder	106	76	72%
Electrician	34	13	38%
Industrial mechanic	16	13	82%
<b>Total</b>	<b>156</b>	<b>102</b>	<b>65%</b>

Source: MoESTD

**Table 33. Students who enrolled GIZ supported VET profiles in 2015 and successfully completed graduation exam in 2018**

Profile	No. of enrolled students in June 2015	Number of students who successfully completed the graduation exam in June 2018	The ratio of those enrolled and those who successfully completed education
Locksmith - welder	153	129	84%
Electrician	49	17	35%
Industrial mechanic	51	27	53%
<b>Total</b>	<b>253</b>	<b>163</b>	<b>64%</b>

Source: MoESTD

However, the presented data require careful interpretation. In more concrete terms, in the profile electrician, out of 34 enrolled students 29 finished studies but only 13 passed graduation exam in June 2017 (e.g. in school Mihajlo Pupin in Novi Sad out of 18 students only 4 passed final examination in first round), but, according to feedback from company representative that were members of the final examination commission, reason for this is raising standards of criteria and for the first-time implementation of new model of final examination methodology. What, also, should be noted is the fact that companies involved in dual education had a professional approach and high expectations in performance and dedication from students, that might not be a case with all the other companies that cooperate informally with schools.

Therefore, 'judging' just from the presented statistic one would conclude that efficiency of the whole process is under a question mark, which is far from the truth, especially bearing in mind high number of employed students after their graduation (e.g. 74% of the first and 78% of the second generation).

Furthermore, it should also be noted that the numbers presented above do not show how students of the mentioned profiles performed in relation to their peers from the same profiles that are implemented within a school-based approach.

## C.2.2 VET learners in need of additional learning and training support

In order to support the enrolment of students with health problems and poorer previous learning outcomes, special medical commissions are formed at district enrolment commissions. These commissions are authorized, in accordance with medical documentation, to enrol in a situation where students could not be enrolled on the basis of the number of points earned during the previous education and the final exam.

Data on this are detailed in the information system of enrolment and for each student from this category, a special enrolment decision is issued by the competent district enrolment commission. On that occasion, also a decrease is made in the number of students who can be enrolled in the classroom where the student is required to provide additional educational support, in order to make the work in the department easier for teachers and other students.

In the school year 2018/19, a total of 592 decisions on privileged enrolment were issued based on the opinion of the medical and district enrolment committee. Of this, 469 (79%) were enrolled in VET schools. In the previous school year, a total of 501 students were enrolled on this basis. As a result of the above, in the school year 2018/1919, the total enrolment quota was reduced for 1925 places. VET providers do not have significant staffing and professional difficulties in providing additional support to this category of students, but financial resources and the need for adjustment of space by removing certain physical barriers are recorded as one of the occurred problems. This is equally valid for VET as well as for general secondary and primary education.

## C.2.3 Measures in support of equity in VET

Within enrolment policy, a model for support of students with developmental difficulties, handicap and for the students under risk of poverty are developed. In more concrete terms, at the level of local self-governments are established intersectoral commissions in charge of providing opinion on individualised educational, social and health support to the mentioned group of students.

An individual educational plan (IEP) is one of the instruments within Serbian education aimed to be used in the process of supporting students to achieve educational outcomes of education in accordance with the prescribed goals and principles and own abilities. According to the Law of the Foundation of Education and the Rulebook on detailed instructions for determining the right to an individual educational plan, its application and evaluation (Official Gazette of the Republic of Serbia, no. 74/2018), three types of IEPs can be established:

- IEP1 includes 'adjustments in teaching methodology, characteristics and organisation of additional assistance, and compensatory activities;
- IEP2 includes the same for IEP1 but also decreased learning outcomes and their specification ('modified programme').
- IEP3 which is developed to enrich the education programme for gifted learners.

Support for pupils in rural areas and less populated parts of Serbia is achieved by giving some schools the opportunity to be financed, even though there are fewer students in classes than prescribed by the law. Instead of 30 students, the state finances classes with a minimum of 15 students, and in some cases even below that number. This type of positive discrimination exists in the case of schools in which national minorities are educated, and especially in schools for students with disabilities where the groups are formed for 4-6 pupils on average.

All mentioned policies, although valid also for general secondary education, are largely intended for students of VET schools because members of vulnerable social groups in vast percentage (over 95%) are VET school students.

Also, in order to include children of refugees and asylum seekers in the education system, MoESTD established Working Group, tasked with providing support to the education of refugee students and asylum seekers in the institutions of the education system. Also, Expert Instructions for the inclusion of refugees/asylum seekers in the Education System have been drawn up, illustrating the procedures for the inclusion of students, provision of support and monitoring and the amendments to the legal

framework of 2017 enabled the systemic inclusion of migrants and asylum seeker students into the Serbian education system.

## C.2.4 Inclusive education and VET

In the Republic of Serbia inclusive education (IE) has been set as an education policy priority and subsequently incorporated into legislation. All the main education policies in Serbia are stating that implementation of the IE is of key significance for the realization of child and human rights, social inclusion and human capital development.

Also, through the process of European integration, the Republic of Serbia makes a strong effort in social inclusion and inclusive education. There are national and international legislation and documents which emphasize the importance of social dimension in the education. In all educational legislation, there are articles which provide equal opportunity for all students. From the Law on Foundation of the education system (LoFES) to the specific laws (e.g. Law on secondary education, Law on primary education etc.). As an illustration, one of the key tasks in Serbia's EU accession process is active participation in the European social inclusion process and reducing poverty. This implies development and enhancement of current policies, the institutional framework and methodologies for monitoring the social inclusion of individuals and social groups in Serbia. Also, the 2020 Strategy points out that the reduction of child poverty is of great importance for reducing social exclusion, particularly in the future, as investing in children creates a better, more flexible workforce to meet the needs of a productive economy.

Additional to the policies and measures described under C.1.3 and C.1.4, the Rulebook on quality standards of educational institutions (Official Gazette of the Republic of Serbia, no. 88/2017 and 27/2018), under the field related to teaching and learning, contains a set of indicators for achieving the standards of teachers' competence for adapting the work to the educational needs of students, as well as the standards for effective management of the learning process, evaluation procedures for further learning and creating a stimulating environment for students.

## C.3: Active support to employment

### C.3.1 Employability of VET graduates

In accordance with SORS LFS 2017 data, the employment rate in Serbia is raising significantly with the completion of the highest level of education (even the employment rate is almost identical for those who completed secondary schools and colleges 51,3 and 51,4%). The employment rate varies from 19% (for those without any education or with incomplete primary school education) to 75% (for those with the highest level of education). Amongst the population with completed secondary school education, the employment rate is 51%. The rates of the inactive population are reversed.

When it comes to the employment of recent graduates, in 2017, 52,1% of those aged 20-34 who completed VET programmes were employed. In the interpretation of such data, the fact that still, a large number of students after completion of secondary schools are continuing their education should be considered.<sup>56</sup>

**Table 34. Employment rate of recent graduates (% aged 20-34) by programme orientation (ISCED levels 3-4)**

	2015	2016	2017
<b>Total</b>			
<b>GENERAL &amp; VET</b>	41,5	49,2	51,4
<b>GENERAL</b>	23,9	45,2	41,2

<sup>56</sup> The last available official data published in Statistical Yearbook of the Republic of Serbia in 2017 reported that continuation rate after secondary school was 88% in 2005/16.

<b>VET</b>	42,2	49,5	52,1
<b>Male</b>			
<b>GENERAL &amp; VET</b>	49,7	56,2	58,5
<b>GENERAL</b>	24,3	59,0	31,6
<b>VET</b>	50,5	56,0	59,8
<b>Female</b>			
<b>GENERAL &amp; VET</b>	29,2	38,4	40,9
<b>GENERAL</b>	23,5	32,9	49,0
<b>VET</b>	29,6	38,9	40,2

Source: SORS - LFS

In explanation of unfavourable situation of young people in labour market referring, MoESTD in its 2018 report related do assessment of the SEDS 2020 Action Plan implementation stated that such situation is the consequence of the state of affairs in the industry but that some characteristics of the system of education, in particular, secondary vocational education and higher education are contributing as well. I.e. the problems are in the relevance of educational profiles, quality of programmes, level of professional practice, enrolment policy and readiness and capacities of all parties to work on alignment of offer and demand in terms of qualifications and competencies. The result of this is that the industry is facing problems of shortage of competent personnel, that is, the personnel whose qualifications reflect the acquired competencies (MoESTD, 2018)

At the same time, some recent studies reported that the labour market in Serbia is unable to 'absorb' young graduates within reasonable time period since the transitional period from school to first stable/satisfactory employment on average lasts almost two years (23.4 months). The duration of transition to first stable/satisfactory employment is reduced by half for young people with university education (15-29 years) when compared with the young people with secondary education, and it lasts on average 11.7 months as opposed to 24.3 months. In the case of young people with primary education, it takes on average 41 months to complete this transition (Marjanovic, 2016).

### C.3.2 Economic factors with an impact on the transition

Some recent studies, as well as data presented in the B section of this report, suggested that school to work transition could be connected with the difference between skills gained in the education system and skills needed at the labour market - e.g. insufficient practical training of graduates is often mentioned by employers. Also, one of the characteristics of the Serbian labour market is the fact that intermediate and tertiary graduates are accepting lower level positions in order to get the practical skills and work experience they are lacking. If such a situation is becoming 'regular and long term' it will further negatively impact the economic competitiveness overall. This 'overeducation' phenomena could be very much connected with low demand and/or uneven territorial distribution of labour demand or there might be an oversupply of tertiary graduates in an economic context (ETF, 2018a).

In report related to periodic evaluation of the local youth employment initiative programmes, it is stated that young people believe that the local self- government, local institutions and representatives of the business sector are working very little/insufficiently on issues faced by youth when entering the labour market and promoting youth employment. Young people particularly note a lack of interest and understanding by businesses and the private sector for the needs of youth, inaccessibility of the private sector for acquiring practical education, and being not interested to support youth in acquiring first work experiences (SIPRU/Government of the Republic of Serbia, 2018, p. 10). The findings of this evaluation, also, indicate that there are some additional barriers for youth in entering the labour market, as underdeveloped entrepreneurial tradition and culture and unstimulating regulatory framework for support of youth entrepreneurship (Social Inclusion and Poverty Reduction Unit/Government of the Republic of Serbia, 2018, p. 12).

### C.3.3 Overview of policies in support of employability and transition to employment

The Ministry of Labour, Employment, Veteran and Social Affairs and the National Employment Service are in charge of creation, development, implementation and monitoring of employment promotion policies and programmes in Serbia. Conceptual framework and main measures are underlined in the National Employment Strategy 2014-2020 and annual action plans for employment.

In the field of education policy, development of the employability skills is recognised as important for all students, but especially for VET students preparing to enter the labour market after secondary vocational schools. Also, in order to harmonise education to the labour market demands, during the enrolment plan for 2017/18 school year MoESTD reduced the total number of available places for pupils in VET schools by 2.28%. At the same time, quotas for 4-year profiles in the field of economy, law and administration are reduced by 6.29% in line with current trends in the labour market, but, quotas related to 3-year profiles in the number of sectors are increased (e.g. construction 15%, forestry and woodworking 33%, textile 47%, catering and tourism 3%) as response to the identified shortage of qualified workers in these sectors and in order to support better employment prospect of pupils after completion of education (MoESTD, 2018).

In addition to the activities planned and provided by the school career guidance team (mandatory for all secondary school by the Law on secondary education, 2013), many projects and initiatives from NGO sector are dedicated to improving employability skills for secondary school students (Virtual Internships implemented by Belgrade Open School, Youth employment project implemented by GIZ are just some of them). Foundation Tempus, through the activities of Europass and Euroguidance centres also supports the improvement of employability skills of secondary school students. Workshops for writing CV organised by Europass centre as a monthly activity since the beginning of 2018 have been attended by around 50 secondary vocational school students. This 3-hour workshop present guidelines for writing CV focusing specifically on how to present skills in the Europass format of CV which is one the common formats of CV on the European level.

In the scope of the activities of Euroguidance centre in Serbia, during the spring of 2017 and 2018 and again with the beginning of the new school year in September of 2018, webinars, presentations and individual consultations for primary and secondary school students on topics of making career choices, gathering information about career opportunities, self-evaluation of knowledge, interests, and skills, etc. were organised. More than 200 students from secondary vocational schools around Serbia attended one or more of such activities.

Additionally, bearing in mind that secondary education graduates are the most numerous populations within unemployed, NES is developing different programmes for this group. Among the most popular are training seminars for active job seeking, entrepreneurship training, training seminar related to the improvement of ICT skills and foreign languages.<sup>57</sup>

### C.3.4 Career guidance

Career guidance and counselling services for different target groups are well-recognized in the relevant policies in the Republic of Serbia. The major role in career guidance and counselling is given to the schools as defined by a set of reformed educational laws that have been adopted in the period between 2013 and today. These laws recognize career guidance and counselling as an integral part of school activities and introduce a career guidance programme and the role of Career Guidance Teams within schools, including secondary VET schools in general, as well as those VET schools that are offering dual profiles. Additionally, one of the latest educational laws, the Law on Dual Education (Official Gazette of the Republic of Serbia, no. 101/17) defines the development of students' career management skills as a key principle of secondary dual education. In accordance to this law, The Rulebook on the work method, activities and composition of the Career Guidance and Counselling Team in secondary schools that implement dual education is adopted (Official Gazette of the Republic of Serbia, no. 2/19).

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<sup>57</sup> Internal NES data

According to the current legislation, individual school teams are responsible for planning and implementing career guidance activities in annual cycles. On a practical level, types of activities provided within schools vary, but mainly include three general groups of services – career information, career counselling provided mainly by the professional associates and career education.

While the secondary school population is entitled to career guidance services within schools, unemployed adults in the Republic of Serbia can access numerous guidance services provided by NES, Centre for Information and Professional Counselling (CIPS) and Centres for Professional Rehabilitation. These services are available to all citizens in Serbia via the network of 34 branch offices. Services provided by the NES and the above-mentioned centres targeted at unemployed adults include professional counselling, career information, employment mediation, training programs for active job search etc.

Additionally, the measures implemented by NES periodically include different retraining programmes in accordance with the labour market needs that also include guidance as well as the support for young people looking for internship programs. One of the biggest programmes of this kind is a retraining programme for work in the IT sector coordinated by NES while training courses are provided by organisers of adult education programmes.

## II. 'Open floor'

C.1.4 - MoESTD has implemented important activities in the recent period in the field of prevention of violence in schools - Several tens of thousands of students, teachers and parents have attended numerous training events as a part of the following activities: strengthening capacities of schools for identification and reaction to incidents of child and young people trafficking; strengthening capacities of schools for prevention of digital violence; strengthening capacities of schools for prevention of violence in sports activities; prevention of gender-based violence; prevention of violence and discrimination in schools in multicultural environments; strengthening system of support to parents, students and teachers in protection of students from violence in schools (SOS telephone line for reporting violence) (MoESTD, 2018).

Also, in selected municipalities, GIZ also implements measures aiming to support Roma students to continue their education and enrol in secondary schools. These measures target Roma students from final grades of primary school and their parents/caregivers. In 2017 and 2018, 554 Roma students finishing primary school participated in these activities, 427 of them enrolled in secondary school (97 in profiles supported by GIZ). In addition to this, GIZ is implementing capacity development measures for staff and students of selected VET schools with the aim to improve inclusion of all students, prevent discrimination, violence and drop out of the students from marginalized groups.

C.2.4 - An important form of professional support for teachers in the implementation of inclusive education is the production of specialised handbooks and materials, mainly produced through numerous development projects. Some of the recent publications include: Handbook for Support Programs for Children and Students with Developmental Disabilities; Handbook for Planning, Implementing and Monitoring Measures for Preventing Student Dropouts; Guide for class teachers 'A step forward in school and parent cooperation'; How to achieve quality complementary classes; Recognize, promote and disseminate – Stories about Successful Schools; Manual for the inclusion of migrant students in the education system.

## III. Summary and analytical conclusions

**Inclusive education is one of the priorities integrated into the strategic framework** of different sectors in Serbia and various **legislation**, especially in the field of education, containing strong references to inclusive education and appropriate measures. Consequently, implementation of different measures related to easier approach, an increase of participation, prevention and reduction of dropout and early school leaving are more and more incorporated in activities of decision-makers as well activities of schools.

Nevertheless, **participation** in secondary education in Serbia **is still much lower among children from vulnerable groups, especially among Roma students**, challenges related to participation occur in rural parts of Serbia that have a very limited number of schools and profiles they offer and **dropout rates in secondary education are particularly high in three-year vocational education**, which put

decision makers in position to constantly balance between measures dedicated to efficiency (e.g. rationalisation of costs of small schools, rationalisation of school network and profiles offer, etc) and those dedicated to equity (e.g. enabling quality education to all by introducing pedagogical assistants, decreasing number of student in classes, etc.).

As for the VET offer, **some of the VET profiles are still very 'popular' among students even not needed by the labour market**, while there are, also, profiles that constantly cannot attract a sufficient number of students which, again, needs decisions if needs of economy or interests of the students are to be accommodated.

When it comes to educational outcomes, together with the increased number of students, **graduation rates recently decreased** and in the 2016/17 school year **completion rate was relatively low** - around 77% for 3-year profiles and around 87% for 4-year profiles which calls for further improvement of the education quality. Percentage of early leavers from education in Serbia in 2017 was just 6,2% but such estimation seems somewhat optimistic.

**The employment rate in Serbia is raising while inactivity rates are decreasing with the completion of the highest level of education and employment of recent graduates, in 2017, was just over the 50% of those aged 20-34 who completed VET programmes.** Also, the **transitional period from school to first stable/satisfactory employment on average lasts almost two years** even slightly less for those with university education compared to young people with secondary education.

In explanation of the unfavourable situation of young people in the labour market in Serbia the following causes are seen as possible: irrelevance of educational profiles, enrolment policy, needed but not happened alignment of offer and demand in terms of qualifications and competencies, lack of interest and understanding by the private sector for the needs of youth, inaccessibility of the private sector for acquiring practical education, and being not interested to support youth in acquiring first work experiences, underdeveloped entrepreneurial tradition and unstimulating regulatory framework for support of youth entrepreneurship.

The Ministry of Labour, Employment, Veteran and Social Affairs and the National Employment Service are in charge for creation, development, implementation and monitoring of employment promotion policies and programmes in Serbia and among most popular NES activities are training seminars for active job seeking, entrepreneurship training, training seminar related to improvement of ICT skills and foreign languages.

**Career guidance and counselling activities are, also, perceived as an important type of support to all students** in making a career decision and recently the role of career guidance as a mechanism for prevention of drop out of students from marginalised and vulnerable groups has been especially emphasized.

Unfortunately, even the legal framework exists and a pretty developed concept of the **system of validation of prior learning is still not officially established** and operational.

# D: INTERNAL EFFICIENCY AND OPERATION OF THE VET SYSTEM

## D.1: Teaching and learning environment

### D.1.1 Teaching and learning methods, including work-based learning

The Teaching and Learning Programme (TLP) consists of three main parts. General education theory (A); vocational theory (B1) and practical teaching - vocational practice (B2). The vocational part of TLP (B1 + B2) is a composition of theoretical vocational subjects and various forms of practice. The ratio of general education and vocational subjects is prescribed by the law and is approximately 35%: 65%, for three-year profiles, or 45%: 55% for four-year profiles. This relationship is less flexible depending on the specific qualification. As for the relationship between vocational theory and practice within the vocational part of the curriculum (B1: B2), it is in favour of practice in particular in the profiles that have been developed over the past three years and that are based on the dual concept of learning.

During practical training, there is a cooperation between teachers of vocational subjects and teachers of practical teaching, with the aim of linking theory and practice. Through exercises during practical classes, students are trained to master the skills necessary for work. During the practical lessons, students conduct practicum - diaries, which are evaluated by teachers.

For 3-year profiles, the currently established standard for practical classes is: during the first year of schooling 1 day per week; two days per week in the second grade and three days per week in the third grade. In a certain number of schools, practical classes take place in school workshops and cabinets, in other there is a combination of work in school workshops and cabinets and companies, and in the case of dual profiles, students have practical classes exclusively in companies with whom special contracts are signed. In more concrete terms, contracts are signed by companies and schools, as well as companies and students and their parents. According to the Law on Dual Education, the day of learning and practice in the company lasts 6 hours. Before going to practice in the company, students pass safety and occupational safety training. In the final year, in addition to practice, students also have a block teaching in enterprises, for a duration of 2 weeks, at the end of the school year.

For four-year profiles, TLP leaves less time for practice even with a few recent profiles based on the dual concept, this has changed, and in-company practice is mandatory.

TLP defines in detail the outcomes of practical teaching and practice of the related work-based learning, and schools and employers can change up to 30% of the prescribed requirements to accommodate the outcomes of education to the needs of employers.

According to the ETF teachers survey, the vast majority of teachers (almost 75%) report that they are always or nearly always guided by the national curriculum, 49% that they are always guided by what they know will be assessed and only 37% that they always or nearly always focus on skills and knowledge that are required by employers. This is also related to the fact that 50% of VET teachers never or almost never visit local workplaces in their vocational field, and thus do not have direct knowledge of what employers want (ETF, 2018c, p. 18).

Bearing in mind all the above mentioned and despite some good results presented, it seems that methods of teaching, as well as teaching and learning process in general, should be further improved (See also D.2.4.).

### D.1.2 Teaching and learning environment

Conditions for the implementation of the teaching process in VET profiles are described and regulated by few articles within laws but mainly by rulebooks that describing all the conditions school must fulfil in order to get permission to implement certain VET profile. Unfortunately, there is no legal obligation for periodical checking of equipment and school infrastructure, so it is not certain if all the schools still have adequate conditions for the implementation of teaching process after few years of getting mentioned permission. Consequently, there is no rare case that teaching and learning environment in VET schools

are assessed as inadequate by students, parents, professional and general public, especially bearing in mind that schools are stating that equipment supply and maintenance costs are one of the challenges.

Also, even local self-governments are in charge for the financing of school buildings, teaching materials, equipment and the professional development of teachers' costs, review of local self-governments budgets suggesting that allocated resources are not enough to accommodate needs of all the schools.

There is still no clear policy regarding school libraries and data about their book stacks, or conditions and all the learning materials for students, including textbooks, are expected to be purchased by the parents.

### D.1.3 Policies to improve training/teaching and learning methods in VET

Teachers' Continuous Professional Development (CPD) is still a most important and most frequent way for the improvement of teaching and learning methods, and CPD policy for teachers is articulated in several documents and is an integral part of the Serbian education policy.

Introduction of the new educational profiles through donor support still assumes activities dedicated to teachers training and improvement of teachers' capacities and competencies for implementation of modernised profiles (e.g. all the EU VET related projects and programmes, GIZ VET projects, etc.). Most of these teacher training programmes contain contentment related to modern teaching methods, the connection between theory and practice, skills needed for the work on modern technologies, etc.

Also, if a company wants to engage in the implementation of a dual education profile, one of the conditions is to have at disposal the necessary number of licensed instructors. The Rulebook on the training programme, closer conditions and other issues of relevance for taking exams for instructors (Official Gazette of the Republic of Serbia, no. 70/2018) prescribes the procedure for applying of candidates for training for instructors, the method of organization and realization of training for instructors which is, according to the Law on Dual Education, organized by the CCIS, the composition and formation of the Commission for passing the exam for the instructor's license, the content of the exam, assessing the exam, announcing the results of the exam and issuing the license for the instructor. An integral part of this Rulebook is the Training Programme for Instructors created by the Institute for Improvement of Education that contains five areas:

- Implementation of the legislative framework in work-based learning
- Planning and preparing work-based learning
- Realizing work-based learning
- Monitoring and evaluating competencies in work-based learning
- Supporting student development in work-based learning.

The training programme describes in detail the competencies, the expected outcomes of knowledge, skills and attitudes and the recommended training content.

Additionally, in order to improve teaching and learning and to strengthen quality of VET schools in general, 11 VET schools from different fields of work (proved to be among those with the highest quality) are selected to act as resource centres for other schools and granted with around 70, 000 EUR in total to be spent for organisation of training seminars, round tables, networking activities and practical workshops, etc. for employees from different schools.

### D.1.4 Improving the training and learning environment

Donors' financial support is still a most significant pillar in activities related to the improvement of schools' infrastructure, even share of financial resources in the MoESTD budget dedicated to the same purpose is increasing every year and, so far, most of the mentioned resources have been spent for VET schools. E.g. during the last two years most of the resources are spent for the supply of CNC machines, simulators and different processing equipment depending on the school's field of work.<sup>58</sup>

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<sup>58</sup> Internal MoESTD data.

Also, during the last two years, ICT equipment is distributed and renewed in all schools and broadband internet access has been secured throughout the entire education system.

## D.2: Teachers and trainers

### D.2.1 Composition of the workforce of VET teachers and trainers

There are categories of teachers and assistant teachers in schools. Within the general category of teachers, there are sub-categories of teachers of theoretical vocational subjects and teachers of practical teaching.

In the domain of the WBL, the Law on Dual Education introduced categories of instructors and coordinators of work-based learning. An instructor is a person employed by the employer, who directly ensures that the contents prescribed by the curriculum of teaching and learning are realized during the work-based learning. The instructor is responsible for attaining the competencies prescribed by the standard of qualification. The instructor must have a working experience of at least three years, have completed the instructor training and have a certificate of passed exam for the instructor.

The coordinator of work-based learning is a person employed in a secondary vocational school, that is, a teacher of practical teaching, who, in cooperation with the instructor, plans, monitors, realizes and evaluates the realization of work-based learning with the employer. The relationship between mentors and coordinators is a significant novelty in the educational system of Serbia because it indicates the concept of team work in the process of acquiring student competencies.

The position of the organizer of practical training, which exists in nearly every vocational school depending on the number of classes, is also significant in a smaller or larger extent. The task of the organizer is a comprehensive contact with the business environment of the school, providing an adequate block of teaching, support for the employment of graduate students, and the like.

There is also 'category' of a new teacher – school trainee. A trainee is a person employed in the relevant position for the first time. In this context, schools are required to select a mentor for a teacher/trainee. During the first three months, a trainee's work is directly supervised by a fully licensed teacher assigned as his or her mentor. After completion of an induction programme and one year of teaching, trainees are entitled to take the licensing examination. The Minister determines, among other things, the training programmes for mentors and the induction programmes for teachers.

Teaching licence must be renewed every five years and condition is that teacher attended a minimum 100 hours of accredited training programmes within the mentioned time.

When it comes to the composition of the teaching workforce, like in the education system in Serbia in general, considerably more female than male teachers are working in VET schools. According to the Statistical Office of the Republic of Serbia, at the beginning of 2016/17 school year, there was 15,430 (64%) female and 8811 (36%) male teachers in VET and mixed schools.

Other teaching staff characteristics in secondary education in Serbia, including teachers employed in VET schools, are presented in the following table.

**Table 35: Teaching staff in secondary schools with different roles and educational qualifications (beginning of 2017/18)**

	Gymnasiums	VET and gymnasium	VET schools	VET and art schools	Arts schools	Total	%
Teaching staff	5658	2010	19223	911	66	27868	100,00 %
Teacher (with education of VII NQF level)	5530	1781	16587	809	50	24757	88,84%
Teacher (with education of VI NQF level)	74	97	1014	14	3	1202	4,31%
Teacher of practical teaching (with education of IV NQF level)	5	3	66	8	2	84	0,30%
Teacher of practical teaching (with education of V NQF level)	0	44	589	28	0	661	2,37%
Teacher of practical teaching (with education of VI NQF level)	2	32	622	31	0	687	2,47%
Teacher of practical teaching (with education of VII NQF level)	0	7	143	20	0	170	0,61%
Class teacher (with education of IV NQF level)	28	23	83	0	0	134	0,48%
Class teacher (with education of V NQF level)	1	7	21	1	0	30	0,11%
Educator (students' dormitory) (with education of VI NQF level)	0	0	1	0	0	1	0,00%
Educator (with education of VI NQF level)	1	0	1	0	0	2	0,01%
Educator (with education of VII NQF level)	17	16	96	0	11	140	0,50%

Source: Centre for Education Policy calculation according to MoESTD data

## D.2.2 Entering the teaching profession in VET

The requirements and procedures who can be employed and work as a teacher are defined by LoFE and teacher qualifications for specific VET programmes are regulated by by-laws within each of the VET curricula. Requested qualification of the theoretical subjects' teachers is the possession of higher education diploma – BA (if employed before 2005) or MA level (EQF 7). For practical subjects, post-secondary education and 5 years of working experience are prescribed as a minimum requirement.

In the case that teachers during their initial education did not have psychological, pedagogical and didactical training, they are obliged to pass a master programme or CPD programme consisting of a package addressing pedagogical, psychological and methodical competences (understanding the processes of learning and motivation, children development, planning, assessment, evaluation, interactive teaching, etc.), which should bring 30 ECTS including 6 hours of practice in some of the schools.

Requirements for in company instructors are regulated by the Law on Dual Education and by-law on the training programme and licensing of instructors. The instructor should have at least same level of qualification as the level of the educational programme they are involved, minimum of three years of working experience and completed 40 hours of official instructors training programme. Also, after completion of the training, successful completion of the prescribed examination process is a precondition for licensing.

In the previous chapter is mentioned that a new teacher who is employed as a teacher for the first time is assigned, during a one-year induction programme, with a mentor. The Rulebook on Licensing of Teachers, Pre-School Teachers and Professional Associates (Official Gazette of the Republic of Serbia, no. 51/2008) provides more details on induction programmes and the licencing process. In order to be eligible as a mentor, a person must be a distinguished and licensed teacher or professional associate, must hold one of the required titles and must have minimum five years of relevant work experience in the field of education. A mentor is assigned by a school principal by an official document, based on an opinion of teachers' expert council for the subject area. If a school does not have a suitable individual a mentor can be assigned from another institution. A mentor inducts a trainee through 1) assistance in the preparation and delivery of teaching; 2) attendance in classes for minimum 12 hours during traineeship; 3) analysis of the trainee's educational and pedagogical work to monitor progress; 4) assistance with preparations for the examination. After one year of the traineeship, the mentor submits his/her report to the principal. During the traineeship, both trainees and mentors keep records of their work.

However, during the last few years, some of the opinions that all above-mentioned requirement are too high – e.g. that teacher of VET school has to have an MA diploma. Also, it is not unusual that schools in small and rural municipalities are not able to secure teachers that are fulfilling all the requirements bearing in mind that a small number of graduate students are going back to their hometowns.

From 2014, the engagement of new teachers at schools, that is predominantly achieved by hiring the teaching staff from the redundancy lists (rule established by the Government), resulted in a significant increase in the share of full-time teachers (in February 2017 – around 80%).

## D.2.3 Employment status of teachers in VET

For teachers and other school employees, school is institution they are closing the working contract.

For teachers in public schools, salaries are provided from the state budget and are the same at the level of the whole country, no matter if the school is in the developed or underdeveloped municipality.

It is not a rare situation in Serbia that one teacher is working part-time or that, in order to achieve a full-time norm, works in a few schools. The reason for such a situation is the fact that the working norm for every teacher is calculated every school year and depends on the number of enrolled students/formed classes.

According to MoESTD data, in 2017, in regard to the teaching staff, over 101,000 teachers were employed in primary, secondary and tertiary education in Serbia. About 54% of all employed teachers work in primary and lower secondary education, about 30% in upper secondary and about 15% in tertiary education. Out of those in primary and lower secondary education, 59% are full-time teachers. In upper secondary education, 56% are full-time teachers and in tertiary education, 89% are full-time teachers and assistants.

The situation regarding teachers in secondary schools at the beginning of the school year 2016/17 by sex and duration of working hours is presented in the following table.

**Table 36: Number of teachers in regular secondary schools at the beginning of the school year by sex and duration of working hours:**

School year 2016/17	Total	Male	Female
Total	29739	10452	19279
Full-time	16130	5466	10656

Source: SORS

According to the presented data, it is visible that almost half of the teachers in secondary education is employed without a full-time job.

Since most of the teachers need around 10% in order to achieve a full working norm, there are ideas to fulfil it by assigning such teachers with the different task within school and matters related to teaching norm are one of the trade unions focuses.

#### D.2.4 Quality of teachers and trainers in VET

With regard to the quality of teaching and learning, the results of the external evaluation of the last three school years show that, according to general quality assessments, most of the quality standards have been assessed as achieved (with obtained grades 3 or 4, where grade 4 is the highest), but that schools are performing below expectations in the evaluated field dedicated to teaching and learning.<sup>59</sup> I.e. external evaluation has shown that one of the biggest problems with teaching in secondary schools including VET schools is monitoring the students' progress, which was, for example, evaluated as insufficient and inadequate in two-thirds of schools in the school year 2016/2017. Furthermore, the lack of individualized classes and teaching combining different learning techniques was seen as one of the major problems. Also, the same analysis shows that teaching is considerably uneven at the secondary level of education. There are visible differences in the quality of teaching among the schools within individual school administrations as well as among different school administrations (IEQE, 2017). The newest survey focused on teachers in VET schools in Serbia showed that almost 40% of teachers didn't have any experience in economic sectors that corresponding to the profession they teach, but that might be due to the fact that 598 teachers of general subjects were also in the sample and did respond to this question. It is encouraging that more than 48% of teachers responded that they had more than 3 years of experience in the vocational branch, and almost 15% responded that they have between one and three years of such experience (ETF, 2018c).

Bearing in mind policies and legislation that prescribed teachers participation in CPD activities (described under D.2.6) it could be presumed that teachers regularly participate in professional development that comprises, usually, theoretical courses but also include on-the-job modules (mainly in the case of donor-driven activities).

Also, it should be noted that VET teachers are not recognised as a category of teachers with specific CPD needs and this trend is continued in the SEDS 2020, which places focus mainly on teachers of general education subjects and teachers in primary schools.

#### D.2.5 Attracting and retaining teachers and trainers in VET

There is no improvement in this area during the reporting period since there is still no strategic approach in the area of attracting and retaining teachers in general.

<sup>59</sup> Rulebook on Quality Standards of the Work of Institution in description of the Domain 2 - Teaching and Learning stipulates that: teacher applies appropriate didactic and methodical solutions in class, teacher applies a variety of learning techniques in the classroom, teacher adjusts the lesson to the educational needs of students, teacher effectively manages the learning process in the classroom, teacher uses assessment in the function of further learning and teacher creates a stimulating atmosphere for a class work.

During 2018 was an attempt to adjust teachers' salaries with other salaries in the public sectors but without concrete solutions established. Improvement is expected when Law on salary ranks will be adopted which is, despite the announcement, again postponed.

Above mentioned topics, from time to time, escalate and appear in the focus of teachers' trade unions interest and become a reason for the strike.

## D.2.6 Steering, motivating and supporting professional development

Continuous Professional Development (CPD) of teachers is teachers' legal obligation, prescribed by the LoEFS. The Law defines, among other things, the competencies related to the professional development of teachers and the process of quality assessment. It is further defined by the Rulebook on continuous professional development of teachers, educators and professional associates (Official Gazette of the Republic of Serbia, no. 81/2017), and according to the rulebook provision, each teacher, with or without license (e.g. teachers in traineeship phase), is obliged to constantly improve professional competences in order to perform more successfully and improve the educational process, in accordance with the general principles and goals of education and standards of achievement. It is foreseen that a teacher is obliged to attend at least 100 hours of professional development programmes over five years of work in order to be entitled to the promotion and to apply for a higher career rank. Teachers are obliged to attend 80 hours from the official catalogue that contains public tender-based and accredited training seminars.

The document 'Competence Standards for Teacher Profession and Their Professional Development' (Official Gazette of the Republic of Serbia, no. 5/2011) intended for all teachers, defines teacher competences classified into four categories:

- Competencies for teaching areas, subjects and teaching methodologies;
- Competencies for teaching and learning;
- Competencies for support to pupils' personality development; and
- Competencies for communication and cooperation.

CPD programmes accredited by the IIE are classified according to these competencies in the relevant programme catalogue (each programme is intended to develop one of the listed competence groups).

Local self-governments allocate finances to the schools for the CPD of teachers.

There are currently inadequate incentive measures in place when it comes to teachers' participation in CPD. The licensing requirement sets a minimum, but it does not reward participation and it does not reward teachers that make use of new competencies to give better or enhanced performance (ETF, 2018c).

## D.2.7 Ensuring the quality of teachers in VET

As mentioned, the teacher's class work performance is part of the external evaluation and it is estimated in the context of specific standards fulfilment. For each of these standards dedicated to teacher's performance, a set of performance indicators are defined. The evaluator grades teacher's performance from 1 to 4 (1- unfulfilled standard, if less than 3 indicators are present, 4 - fully achieved a standard, if all indicators met). Therefore, the advisors observe classroom practice and analyse assessment record and other documents prescribed by the Rulebook for student assessment, documents for preparation of the lesson and operational plans of teachers. The intention is that the results of this evaluation are going to be used for planning of teachers CPD.

Regarding CPD, the quality of teacher training programmes is currently assessed only immediately at the end of the training. A new methodology for ensuring the quality of the programmes has been developed by the Institute for Psychology, Faculty of Philosophy Belgrade and Institute for Evaluation of the Quality of Education but is not yet implemented.

As a part of general efforts to strengthen and improve inclusive education the Monitoring Framework for Inclusive Education in Serbia (MFIES)<sup>60</sup> has been developed by the Institute for Psychology in cooperation with the Social Inclusion and Poverty Reduction Unit (SIPRU), MoESTD, United Nations Children's Fund (UNICEF) and Open Society Foundation (OSF). MFIES presents a foundation for systemic and objective monitoring of the progress achieved in the area of inclusive education, intended to improve the implementation and promotion of inclusive education in Serbia in accordance with the collected data. Parts of the MFIES are dedicated to teachers and it addresses all levels of the educational system – national, local and school level, which may be applied either holistically or separately.

In 2018, after the first cycle of external evaluation, based on the data collected, Ministry revised standards and indicators within QA framework and introduced some mechanisms for improvement of quality specifically in the area of teaching and school management.

There is no data if these policies and measures working and delivering as planned and expected.

## D.3: Quality and quality assurance

### D.3.1 Quality and relevance of education and training content in VET

The number of active educational profiles in the formal VET system is still very high (around 200) for the level of social and economic development.

VET education programmes are defined in different ways. Despite the constant modernization, a significant number of educational profiles that are still in the system are based on programmes that were adopted mainly in the early '90s and are based on the needs of the respective occupation or group of occupations from the Unique Nomenclature of Occupations depending on the degree of professional development. These profiles, especially the four-year ones, are oriented towards the acquisition of primarily theoretical knowledge and are harmonized mainly with the degree of development of the economy of the time in which they were designed.

Employers, especially in the context of the introduction of dual education, often evaluate educational programmes as insufficient to develop the necessary competencies, whether they are new modernized programmes or old so-called 'classical' programmes. The need for a faster VET reform is certainly being imposed, which should accompany the adoption of new standards of qualification through the development of the NQFS and the work of the sectoral councils.

The assessment of the quality of the curriculum based on the employability of students who have acquired qualifications according to it is a special challenge, especially from the aspect of economic, technological and social development of the country, on the one hand. On the other hand, most students enrolled and completed four-year vocational education in order to continue their education at higher education institutions, so data on the quality of education programmes would not be quite valid even from the aspect of further education.

### D.3.2 Defining the quality of learning outcomes

SEDS 20202 cites the main principles of the quality education system in the Republic of Serbia and calls for the provision of high-quality education for all.

The Law on National Qualifications Framework in Serbia, also, refers to the establishment of a quality assurance system in the process of planning, development, acquisition, certification and evaluation of qualifications.

Additionally, the Rulebook on professional-pedagogical supervision (Official Gazette of the Republic of Serbia, no. 34/2012) regulates the manner of exercising professional-pedagogical supervision over work of schools and regulates criteria for evaluating the quality of the educational institution's work and the way of evaluation of the work of the advisors.

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<sup>60</sup> [http://www.unicef.org/serbia/Monitoring\\_Framework\\_for\\_Inclusive\\_Education\\_in\\_Serbia.pdf](http://www.unicef.org/serbia/Monitoring_Framework_for_Inclusive_Education_in_Serbia.pdf)

The Rulebook on the evaluation of the quality of the work of the institution (Official Gazette of the Republic of Serbia, no. 9/2012) is related to all pre-higher education institutions and among other things sets out the fundamentals and measures for self-assessment and external evaluation.

Set of quality standards that should be implemented on the system level is defined in LoFE and envelope a few different standards' areas:

- student achievement standards;
- standards of quality of work of the schools;
- textbook quality standards;
- standards of competence of teachers, educators and pedagogical counsellors;
- the competency standards of the school principles.

### D.3.3 Quality assurance processes in VET

**External evaluation** is performed by the inspectorate of MoESTD and the Institute for Education Quality and Evaluation. It is carried out on the basis of the analysis of reports and documents, direct inspection of teaching and talks with employees and principals.

**Self - assessment** is conducted every year in one of the key evaluation areas (school is choosing which one), and overall every four or five years. It is a joint action of the professional school bodies, parents' council, students' parliament, principal and school board, done through a combination of a diverse technique like observation, interviews, surveys, scaling, testing and documentation analysis.

The Rulebook on standards of the quality of the work of the institution (Official Gazette of the Republic of Serbia, no. 14/2018) identifies six key evaluation areas, as well as evaluation indicators and tools. Those key areas are:

1. School programmes and annual work programmes;
2. Teaching and learning;
3. Pupils' performance;
4. Support to pupils;
5. Ethos;
6. The organisation of the school work, human resources and material resources management.

For all six key evaluation areas, 24 standards are developed, and those standards are presented in the form of indicators (124 in total).

External evaluation includes the analysis of documentation the self-evaluation report, school programme, annual work plan, school development plan and report of the pedagogical advisor; direct observation of the teaching and other forms of educational work; interview with the principal, professional associate, teachers and educators, students, parents and other persons important for the school work and other necessary activities. Pedagogical advisor's school visits cover at least 40 percent of direct communication with the teachers and at least 20 minutes of class observation. After completing an external evaluation for each of the school report is to be developed, and at the end of each of school year, IQE is developing and making a publicly available summary report on results of the external evaluation conducted in the respective school year.

MoESTD is responsible for the accreditation of VET providers, both informal and non-formal sector. VET curricula are developed by IIE, verified by both councils (National Education Council and VET and Adult Education Council) and adopted by MoESTD. Providers in the non-formal sector can apply for accreditation and should fulfil all the conditions prescribed by Law on Adult Education and by-law on accreditation. The Law on National Qualification Framework gives the mandate to the NQF Agency to manage the accreditation of providers of non-formal education.

VET Centre is still responsible for the development of qualification standards to be used as a basis for VET curriculum development, for assessment criteria and for assessing the quality of learning outcomes

but with the establishment of NQF Agency and SCs new procedure of designing and reviewing of qualifications will take place.

In practice, the weak points in the development of qualification standards are related to the participation of stakeholders, lack of data on labour market needs and policies on revision and rationalization of qualifications within the educational supply.

### D.3.4 Creating and updating VET content

The initiative for the development of new programme may be submitted by any of the stakeholders (e.g. school, CCIS, company, etc.). Also, the initiative for the development and adoption of standards for a new qualification may be submitted by the Sectoral Council, the Council for Vocational Education and Adult Education, the National Education Council, the National Council for Higher Education, the National Employment Service, a higher education institution, a state body and other legal entity (corporations, PROAE, etc.). The Council shall, within 30 days from the date of receipt of the material, determine the draft standard of qualification and submit it to the ministry responsible for education. Within 30 days from the date of receipt of the proposal the ministry in charge of education issues, the act on the adoption of the standard of qualification and submits it to the Agency for entering in the Register.

During the previous years, IIE/VET Centre did a revision of the old and development of new programmes by the establishment of different working groups that, among others, involved economy representatives and higher education institutions representatives in the case of 4-year VET profiles.

Except for the development of programmes that are based on learning outcomes and competencies, training of teachers that are going to implement such profiles is of importance, especially in domain of planning of teaching and learning process and assessment of learning outcomes. Such training seminars are implemented by IIE periodically, but there is a huge need to establish them as permanent and at the system level.

### D.3.5 EU Key Competencies

LoFES defined 8 Key competencies (accordance to EU framework) as a set of integrated knowledge, skills and attitudes that each individual need for personal fulfilment and development, inclusion in social life and employment.

All the mentioned competencies have particular importance for VET, and all are included in qualification standards and curricula of all the modernised VET profiles.

The general standards of achievement for the general subjects in secondary vocational education (at the basic, intermediate and advanced level), as well as general standards for cross-curricular competencies, were developed between 2008 and 2015. Cross-curricular competencies are as following:<sup>61</sup>

- 1) Competence for lifelong learning;
- 2) Communication;
- 3) Work with data and information;
- 4) Digital competence;
- 5) Problem-solving;
- 6) Cooperation;
- 7) Responsible participation in a democratic society;
- 8) A responsible attitude towards health;
- 9) A responsible attitude towards the environment;
- 10) Aesthetic competence;
- 11) Entrepreneurship and entrepreneurial competence.

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[http://ceo.edu.rs/images/stories/obrazovni\\_standardi/Opsti\\_standardi\\_postignuca/MEDJUPREDMETNE%20KOMPETENCIJE.pdf](http://ceo.edu.rs/images/stories/obrazovni_standardi/Opsti_standardi_postignuca/MEDJUPREDMETNE%20KOMPETENCIJE.pdf)

On-line training dedicated to the implementation of general standards of achievement for the end of general secondary education and secondary vocational education by IEQE started at the end of 2016 and it is still ongoing.

Information on the quality of learning outcomes could be derived, also, from the results of the PISA studies. In 2012, Serbian students in all tested areas (reading, mathematics and science) were in the zone of low achievement and below OECD and regional average. For example, according to the results, about a third of students in Serbia can be considered functionally illiterate from the standpoint of the criteria of OECD countries (i.e. those who do not achieve the second level of achievement on the PISA scale) (table 37).

**Table 37. PISA underachievement (% aged 15)**

	2009*	2012**
<b>Reading</b>	32,8	33,1
<b>Mathematics</b>	40,6	38,9
<b>Science</b>	34,4	35,0

Source: OECD PISA database

\* Ranking 45/65 on the overall Reading scale

\*\* Ranking 43/65 on the mean score on Mathematics scale

The lack of Serbia's participation in the PISA cycle in 2015 makes it impossible to report and adequately monitor the trend of the population of children regarded as functionally illiterate at the time when compulsory education has been completed. Additionally, it makes impossible to compare Serbia with other countries when it comes to the basic competencies of students in the field of language, mathematics and science in the last years. From 2018 Serbia returns to the group of PISA participating countries, but official results are still not available.

VET centre developed a methodology for students' evaluation based on competencies that are applicable to the final and Matura exam for the profiles that are based on qualification standards. These concepts are piloted and improved through piloting phase there are some recommendations on teaching/learning methods and assessment criteria to be applied.<sup>62</sup>

### D.3.6 Policies to strengthen quality assurance

There is no systematic approach to monitoring the quality of the curriculum in terms of learning outcomes. IIE advisers who are responsible for coordinating the work of working groups that develop curricula, in accordance with their own work plan, organize consultative meetings with teachers of vocational subjects, in the framework of meetings of associations of schools when they discuss this issue. This year, for the first time, 3 qualifications were revised based on programme analysis, experience in its realization, as well as technological novelties in the field of food production and processing.

The Law on Dual Education prescribes the obligation to revise the qualification standards and programmes every five years.

In order to improve the quality framework in vocational education in Serbia, it is necessary to establish a time frame for the revision of the qualifications' standards and then the education programmes.

In order to establish a quality system in the field of management of educational institutions, the Rulebook on the Training Programme and the Passing of the Exam for the License for the Director of Education Institutions (Official Gazette of the Republic of Serbia, no. 63/2018) was adopted and the first exams for the director's licenses were conducted in December 2018.

<sup>62</sup> <http://www.zuov.gov.rs/zavrsni-ispit-i-matura/>

In 2017, Serbia formally joins the European Alliance for Apprenticeships. It is to expect that Involvement in the alliance will help Serbia to improve supply, attractiveness, relevance and quality of all existing forms of apprenticeship across all levels of its education system, including VET.<sup>63</sup>

In January 2019 the project 'Improving the quality of education by introducing examinations at the end of secondary education' financed through IPA funds has started. The overall objective of the project is improving the quality of learning outcomes and activities of the project are structured around three results to be achieved: Result 1. The education system of the Republic of Serbia is prepared for the implementation of final examinations in secondary education; Result 2. Higher education institutions are prepared for a new way of enrolment of students; Result 3. Increased understanding of the public about the relevance of introducing final examinations in secondary education and its benefits for society.

Also, projects related to support the Government in work-based learning improvement and dual education establishment - SDC projects implemented through the Private Sector Development Program and through specific bilateral and institutional cooperation, German Federal Ministry for Economic Cooperation and Development (BMZ) through project Reform of Vocational Education and Training in Serbia supports dual VET (implemented by GIZ) and joint project implemented by Serbian and Austrian chamber of commerce aim to build school and national institution capacities to implement activities dedicated to the improvement of the quality of VET and particularly work-based learning including the development of monitoring and evaluation framework, teacher training and establishment of conditions for stronger involvement of employers in the implementation of practical part of final examinations.

## II. 'Open floor'

D.1.1. - According to the ETF teachers survey (ETF, 2018c), teachers in VET schools in Serbia use ICT more for preparing the lessons and finding instructional material (77% teachers do that frequently or in almost every lesson) than students (only 48% frequently and almost in every lesson). 13% reported that their students almost never use IT for learning. Letting students practice similar tasks until every student has understood the subject matter and presenting a summary of recently learned content is the teaching approach that is most commonly used among the teachers (80% and 79% of answers 'frequently' or 'almost in every lesson'). Almost 77% of teachers in the sample say that they use differentiation frequently or almost in every lesson.

Planning lessons so that when students learn new theory or knowledge, they also apply that theory or knowledge to work-like tasks (work practice) is frequently used, according to the teachers (76% of teachers do so frequently or almost in every lesson). Also, learning theory and also using that knowledge to solve practical problems within one lesson is frequently, almost in every lesson, used by a majority of teachers (77%).

The survey suggests that teachers in VET schools don't have enough direct contact with employers and workplaces. 50% of teachers of vocational subjects never or almost never visit local workplaces and 48% of VET teachers admit that they are never asked for advice by employers when they are recruiting young workers.

D.2.7 - In 2017, MoESTD published the Digital Competence Framework - Digital Age Teacher and accompanied the Guidelines for Improvement of the role of information and communication technologies in education. The Framework recognizes the importance and role of new technologies for improving the education system and intends to help teachers in the process of self-assessing and developing their own digital skills and digital learning practices, as well as to identify the next steps for their professional development. For trainers, this document can help them to improve the quality and relevance of professional programmes, while decision-makers can use it to assess and revise existing regulation and design specific policy measures (MoESTD, 2017).

D.3.5 - For the first time in Serbia, during the PISA 2018 round, financial literacy was tested. This is particularly important bearing in mind that financial literacy is, in many ways, connected with some of the key competencies. In addition, the MoESTD has established a Financial Literacy Working Group that has designed a Financial Literacy Manual for Teachers, which should serve to practice and develop functional knowledge from this domain and to prepare students for PISA testing.

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<sup>63</sup> <https://ec.europa.eu/social/main.jsp?catId=1148&langId=en>

### III. Summary and analytical conclusions

The Teaching and Learning Program (TLP) in VET schools in Serbia consists of three main parts - general education theory, vocational theory and practical teaching - vocational practice, thus **all the learning methods including work-based learning are applied in Serbian VET schools**. The ratio of general education and vocational subjects is prescribed by the law and is approximately 35%: 65%, for 3-year profiles, or 45%: 55% for 4-year profiles. Also, when it comes to the place of implementation of practical classes, there is variation – some schools implement it exclusively in school workshops and cabinets, sometimes there is a combination, while in the case of dual education profiles practice is implemented in companies.

Regarding teaching methods, there is a room for improvement bearing in mind that seems that **part of the teachers still needs to turn to and practice innovative, more complex and differentiated approaches to students and be more focused on skills and knowledge that are required by employers** since external evaluation has shown weaknesses in these areas.

When it comes to teaching and learning environment, schools even have official permission to implement a certain profile are not always able to maintain and/or to improve teaching and learning conditions (knowing that financial resources from the local level that is in charge for this are very limited in most of the cases) thus **it is not certain if all the schools have adequate conditions for implementation of teaching process** after few years of getting mentioned permission.

Schools infrastructure improvement is mostly supported by donor organisations, even the MoESTD budget dedicated to the same purpose is increasing. Also, during the last two years, **ICT equipment is distributed and renewed in all the schools** and broadband internet access has been secured throughout the entire education system.

There are different 'categories' of teachers in Serbian schools – teachers (of teachers of theoretical vocational subjects, teachers of practical teaching, organizer of practical training, trainee teacher, mentor teacher) and assistant teachers in schools, while with the Law on Dual Education instructors and co-ordinators of work-based learning are introduced.

Among teachers, in 2016/17 school year, there was 64% female and 36% of male teachers in VET and mixed schools, and around 50% of them are full-time employed. For teachers in public schools, salaries are provided from the state budget and are the same at the level of the whole country.

The requirements and procedures who can be employed and work as a teacher are defined by LoFE and teacher qualifications for specific VET programmes are regulated by by-laws within each of the VET curricula, but in general candidates for teaching profession must have BA (if employed before 2005) or MA level. For practical subjects, post-secondary education and 5 years of working experience are prescribed as a minimum requirement. Unfortunately, there is still no strategic approach in the area of attracting and retaining teachers in general.

In the case that teachers during their initial education did not have psychological, pedagogical and didactical training, they are obliged to pass a master programme or CPD programme dedicated to improvement and gaining of the mentioned competencies.

**Teachers' CPD is still the most important and most frequent way for the improvement of teaching and learning methods.** A teaching licence is connected with CPD; thus, every teacher must attend a minimum of 100 hours of accredited training programmes within five years in order to renew the licence. CDP is a legal obligation of all teachers – with or without a licence.

One of the systemic novelties is the **introduction and regulation of the procedure for licencing of in-company instructors** in companies involved in the implementation of dual education profiles.

The first exams for the **director's licenses** were conducted in December 2018.

**However, there is no system in place in which participation in CPD activities and better performance is rewarded.**

**The main principles of the quality education system are underlined in all the main strategic and legislative framework**, and evaluation of the quality of educational institutions work (including teaching process) is done through processes of external and self – assessment.

**There is no systematic approach to monitoring the quality of the curriculum in terms of learning outcomes even employers often evaluate educational programmes as insufficient to develop the necessary competencies**, therefore the need for a faster VET reform is certainly being imposed.

**Key competencies (accordance to EU framework), as well as 11 cross-curricular competencies, are part of curricula of all the modernised VET profiles** and VET centre developed a methodology for students' evaluation based on competencies that are applicable for the final and Matura exam for the profiles that are based on qualification standards.

In order to improve the quality framework in vocational education in Serbia, it is necessary to establish a time frame for the revision of the qualifications' standards and then the education programmes.

## E: GOVERNANCE AND FINANCING OF VET

### E.1: Institutional arrangements

#### E.1.1 Effectiveness of institutional and governance arrangements

In the reporting period, certain centralisation appeared - responsibilities of the MoESTD are strengthened as a response to the identified inefficiency of different segments of the system (e.g. long-lasting procedures, disagreements between councils, etc). The changes happened are described under E.1.3 – Governance reforms.

During 2017 and 2018, it has been intensively working on the project 'Introduction of a quality management system in MoESTD as an organization'. Training seminars of employees in all organizational units for the tasks of internal assessors were completed, as well as procedures for handling all tasks performed by the organization. During January 2019, the first internal check of the functioning of the Quality System at the level of all organizational units was performed. After obtaining reports and recommendations for corrections, external verification and certification of the MoESTD will be organized as an organization dedicated to improving the quality of service delivery.

#### E.1.2 Accountability, leadership and control

The management body in the VET school is a school board. The management body has nine members - three representatives of the employees of the institution, three parents and three representatives proposed by the local self-government unit. The assembly of the local self-government appoints those representatives from the group of employers, of trade unions and other groups of stakeholders.

The principal of the institution is appointed by the minister for a period of four years and is responsible for the legality of work and for the successful performance of the institution's activities. The principal is responsible for his work to the Minister and the Managing Authority.

Some of the important duties of the VET schools directors, in accordance with legislation, are:

- a) Planning and the execution of all the activities at the level of the institution;
- b) Ensuring self-evaluation, creating conditions for conducting the external evaluation, and improving the quality of educational work;
- c) Cooperation with the local self-government, other institutions and organizations;
- d) Support in creating an environment for achieving entrepreneurial education and entrepreneurial activities of students;
- e) Monitoring of the quality of educational work and pedagogical practice;
- f) Planning and monitoring of CDP of employees;
- g) Cooperation with students and student parliaments.

The professional bodies and teams on the VET school level take care of securing and improving the quality of the educational work of the institution; monitor the delivering of the school curriculum; evaluate the results of the work of teachers and professional associates; monitor the results of the work of students; take measures for work with children, students and adults in the process of education, etc.

At the school level initiatives may be raised by individuals (including students and parents), groups of teachers, social partners, etc. These initiatives are mainly focused on innovations within curricula as well as on innovations of teaching methods, work on contemporary equipment and teaching aids.

At the system level, initiatives for innovations may be raised by MoESTD, other ministries, social partners, governmental bodies and civil society organisations. During the last few years, the number of initiatives for the establishment of the new educational profiles by companies is increased. One of the examples is profiles Technician for Logistic and Trader, that are developed and introduced in the system during 2017 and 2018 in cooperation with few Austrian companies and with the support of trade department of the Austrian Embassy, Austrian Chamber of Commerce and CCIS.

In order to carry out expert pedagogical supervision, external evaluation of the work of the VET institutions, provide support to development planning and improvement of the quality of work of institutions the Ministry establishes the school administration units - for performing these tasks outside the headquarters of the Ministry.

One of the important mechanisms for improvement of the assessment of the quality of learning outcomes is an external commission that is established for each profile in each of the schools during the implementation of final exams where one of the mandatory commission members is employers' representatives.

### E.1.3 Governance reforms

With the new 2017 legal framework, some of the responsibilities of the National Education Council and the Council for Vocational Education and Adult Education were passed on under the responsibility of the MoESTD (adoption of curricula and teaching and learning programs, adoption of standards) whereby the Councils only retained their advisory role (MoESTD, 2018). Also, the new legislation allows the Ministry to set up the commission for drafting of bylaws, if councils or institutes (IIE and IEQE) in charge for their drafting or participating in their drafting, fail to submit them within the deadline or submit documents that are not in accordance with the requirements defined by the minister. In case of failure to comply with the order of the minister or in case of untimely compliance on the part of the institute, the minister may propose to the Government to dismiss the head of such institute and/or the president and/or member of the competent council.

At the local level, the new LoFES also laid down a new procedure for the selection of the heads of educational institutions. Instead of management body (school board) that has been competent for election of the director so far, in the new solution, this has become a competence of the minister, who bases his or her decision on the grounds of reasoned list of candidates meeting the requirements and the proposal of the candidate submitted by the management body on the basis of the procedure previously carried out in accordance with the law.

In view of the increased efficiency of the system, the new LoFES pays more attention to accountability. The law has extended the responsibilities of teachers as regards the quality of teaching, assessment, and procedures concerning non-compliance with regulations, violence and discrimination. There is an increased liability in cases of such violations, with raised fines, newly introduced educational and disciplinary measures, and community and humanitarian work.<sup>64</sup>

In order to improve efficiency of the governance system, in the course of 2018, the Commission for the Development and Implementation of Dual Education was established by the Government with the tasks of coordinating activities in the implementation of dual education at the national level and monitoring and evaluation of the quality of the implementation of dual education. Members of the Commission are representatives of the Government, MoESTD, CCIS, the Standing Conference of Towns and Municipalities (STCTM), schools, employers, while the inclusion of more members is expected in the coming period.

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<sup>64</sup> [https://eacea.ec.europa.eu/national-policies/eurydice/content/national-reforms-school-education-58\\_en](https://eacea.ec.europa.eu/national-policies/eurydice/content/national-reforms-school-education-58_en)

## E.2: Involvement of non-state actors

### E.2.1 Distribution of responsibilities between state and non-state actors in VET

One of the principles of VET in Serbia is the partnership between schools and employers and also, within dual education, the partnership between MoESTD and CCIS,<sup>65</sup> as well as establishing a social partnership at the national and local level.

According to the Law on Dual Education, CCIS is responsible for checking the fulfilment of the conditions for conducting work-based learning of the employer through the work of the Commission for determining the fulfilment of the conditions for conducting work-based learning with an employer for an educational profile or group of educational profiles; it keeps a register of eligible employers for realization of work-based learning, CCIS is support to schools and the Ministry in the search of employers who will realize work-based learning. In addition to these CCIS is also in charge of keeping the register of dual education contracts, informing employers through regional chambers of commerce on dual education, conducting exams for instructors, issuing a license to instructors and keeping a register of issued instructor licenses.

Representatives of CCIS and representatives of Associations of employers are members of sectoral councils and the NQF Council in accordance with the Law on the National Qualifications Framework in Serbia (NQFS).

The establishment and work of sectoral councils are formalized by the adoption of the Law on NQFS, which was adopted in April 2018. The sectoral councils are defined by the above-mentioned Law as bodies that participate in the process of proposing and creating the qualification standards that are the basis for the development of education programmes for acquiring qualifications at all levels of education. Representatives of the economy are obligatory members of these councils.

Cooperation and joint decision-making between representatives of the Ministry, economy, local self-government and social partners are also evident in creating enrolment policy for the intake in secondary schools - the structure of enrolment in secondary vocational schools during the last school year was determined in accordance with the needs of the economy; when enrolling students in dual profiles it was taken into account that each school has adequate support from employers, which means that for each planned student there should have been a secured place for realization of work-based learning with employers.

Parents are members of each school governing board but, unfortunately, the civil society sector is still not seen as a permanent member in the governance process.

### E.2.2 Policies in support of participation of non-state actors

As mentioned, the establishment and maintenance of the social partnership are important to the pillars of the VET system in Serbia.

Even there are no incentives for the participation of non-state actors, there are legal and institutional frameworks that foreseen their involvement. Individual arrangements (e.g. VET Council, school board and sectoral councils' compositions are already described in different parts of this report).

One of the novelties that comes with Serbia EU candidate status, was the establishment of the National Convention on the EU (NCEU) that established different working groups composed by representatives of different civil society organisations and which are in charge for following of the process and dynamics of the negotiations. Therefore, NCEU plays a consultative mechanism role, institutional open dialogue role, and the role of the mechanism for monitoring of the adopted and implemented measures, during the entire accession negotiations process.<sup>66</sup>

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<sup>65</sup> Reminder - CCIS is an independent, non-governmental, business-experts and interest association of legal and natural persons who perform registered economic activity.

<sup>66</sup> <http://eukonvent.org/eng/work-methodology/>

## E.3: VET budget

### E.3.1 Expenditure planning, VET budget formation and execution

In the period since the adoption of the Strategy SEDS and its Action Plan, no significant steps have been made in order to change the system financing pre-university education even in both documents, a new model of financing per student is foreseen.

In more concrete terms, the system of financing primary and secondary education is still input-based which means that the number of teaching and non-teaching staff is determined in relation to the number of classes.

It is necessary to mention that although there are currently no mechanisms for assessing the effectiveness of all measures, any modernization in vocational education requires significant financial investments in equipment and infrastructure, teacher training for new programmes (ETF, 2017), therefore the question of financing all of these measures remain open even there is a significant inflow of foreign funds into the field of education.

Some of the attempts directed to the improvement of the financing system management are described under E.3.2.

### E.3.2 Policies to improve expenditure planning and budgeting in VET

The introduction of the Medium-term Expenditure Framework (MTEF) for the Education Sector in 2016 represents a major improvement in financial planning in education in Serbia. It serves as a tool for monitoring the implementation of the reform measures in the sector by tracking and comparing the execution of planned allocations from year to year.

The MTEF focuses on budget appropriations for education measures which have been planned in the 2017 national budget and an extended projection until 2019.

The sector MTEF for the education sector is developed to provide financial information about stated costs and source of financing for main stakeholders involved in the education sector for the current year and projections for the next two years with a clear link with objectives, measures and results from relevant strategic documents.

Financial plans that are presented in MTEF for forthcoming years are at this point projections which will be seriously considered during the preparation of annual budgets, and they will not necessarily be approved in foreseen amount. This will depend on annual budget calculations for each year and priorities identified.

The matrix that MoESTD uses has been developed by the Ministry of Finance and was designed to enable an easy 'read across'. In the first sheet of the Matrix, on the left side of the table are the priority programmes and programme activities for the implementation of strategic/action document. The middle column shows the budgetary funding, national and external, planned (as stated in the Law on Budget for that year) and executed, and then planned as stated in the Law on Budget for next year, with projections for following two years. The last column to the right side shows the link of actions with specific reform objectives, measures and results in the education sector strategic documents.

The sector MTEF is taking into account all sources of funding, whether the national budget and/or external/donor support, although paying particular attention to the budgetary resources, including the Sector Budget Support (SBS) provided by the EU.

## E.4: Mobilisation of resources for VET

### E.4.1 Sources and mechanisms of funding for VET

Public secondary education in Serbia is funded from central government level, local level and from own income of secondary education schools.

The vast majority of all secondary education institutions are public, and education is therefore mostly funded through public sources (central government and local municipalities).

Central government funds are allocated for staff salaries from the central budget, while the maintenance costs for school buildings, as well as for teaching materials and equipment, students' and teachers' transportation, capital expenditures, protection and safety of children and students and the professional development of teachers, is funded by the local governments.

16,4% of total expenditure for education from the republic level is allocated for pre-primary education, 43,2% for primary education, 14,5% for higher education, and 18,8% for secondary education (SIPRU/Government of the Republic of Serbia, 2018).

Data on public expenditure on vocational education (as a percentage of GDP and total public expenditure) do not exist, but the last available data on public expenditure on education are presented in table 38.

**Table 38. Public expenditure on education**

	2010	2011	2012	2013	2014	2015	2016
<b>% of GDP</b>	4,6	4,5	4,5	4,3	4,3	4,0	3,9
<b>% of total public expenditure</b>	10,5	10,6	9,6	9,4	9,1	9,6	/

Source: SORS (% of GDP, received); UNESCO (% of total public expenditure)

The budget of the autonomous province provides funds for the work of the institution, for a part of the economic price, in accordance with the law regulating the financing of institutions in the territory of the autonomous province.

The VET institutions may, through the participation of a unit of local government, donor, sponsor or extended activity and parents (voluntary) provide funds for higher quality in the field of preschool, primary and secondary education.

According to the Law on Dual education law, from 2019/20 school year employers engaged in dual education have to provide the following support to students pursuing work-based learning:

- 1) personal occupational protective means and equipment;
- 2) reimbursement of the cost of transportation from the school to the location of work-based learning and vice versa,
- 3) reimbursement of the cost of meals, in conformity with the employer's internal by-law;
- 4) insurance against injury during work-based learning at the employer.

Employers may also cover the costs of students' accommodation and meals at a hall of residence.

Students pursuing work-based learning shall be entitled to compensation for work-based learning. Compensation for work-based learning shall be paid by employers, per hour spent in work-based learning, in the net amount not lower than 70% of the minimum wage set in conformity with the law.

In conclusion, total public expenditure per student has risen in the recent years at all levels of education, mostly as a consequence of the reduction of the student population but these funds have not been invested in the development of education but have been used for financing the existing number of employees (MoESTD, 2018).

## E.4.2 Diversification and mobilisation of funding for VET

There are currently no subsidies for employers entering dual education, although meetings of representatives of the Ministry of Education, Science and Technological Development, the Ministry of Finance and the Chamber of Commerce are expected in relation to this topic.

The next few months will be important, since from September 2019 the full-time dual education law should enter into force. There is already a fear that employers' obligations to have signed contracts with students in the upcoming period and to allocate financial compensation for work-based learning, will reduce their interest in participation. Soon more will be known when the next round of planning for enrolment of secondary school students is completed. In line with the development of the situation, adequate measures will be implemented in cooperation of the CCIS, Standing Conference of Towns and Municipalities and MoESTD.

## E.5: Allocation and use of resources in VET

### E.5.1 Patterns of resource allocation

Under E.4.1 is explained how the resources for VET are typically allocated, but when it comes to issues with the resource allocations, the area that is insufficiently covered is the financing of teaching aids and equipment. The decrease in spending usually negatively influence the quality of teaching which, consequently, negatively influence on the acquirement of vocational competencies. This situation is more common in municipalities that have a budget below the Republic average.

The Law on the Budget for 2018 envisaged to redefine and improve the structure of secondary schools in line with the development of science and technology, the needs of the economy and demographic challenges while respecting the educational needs of vulnerable groups. As obstacles to quality work, in relation to the above mentioned, it is stated that teachers do not undergo adequate professional development programmes and that it is expressed by the problem of ensuring the quality of the practical part of teaching in school and out of school.

A network of secondary schools is still not completely aligned with the trends of enrolment and wishes of students, so there are great discrepancies in the usage of space. There is a big number of schools with a surplus of space: on the other hand, gymnasiums and several types of vocational secondary schools suffer from a shortage of space.

### E.5.2 Policies to ensure adequacy of resources for VET and equity in their allocation

During 2017, the Feasibility Study for the Optimization of the School Network and the Activity of School Mapping in Serbia was prepared and based on the analysis of the legal framework and statistical data, different models of optimization have been proposed, whereas the final goal of this new pre-university school network is to improve its efficiency and effectiveness without losing sight of the quality and equity of education that is, preventing possible negative effects on equity. Therefore, in March 2018, the Regulation on Criteria for Adoption of Enactment on Network of Public Secondary Schools was adopted. Nine criteria have been defined: economic, criteria of equality, availability, organizational, status, demographic, cultural and optimization criteria. The defined criteria allow for the creation of an optimized network of secondary schools, merging of small schools into one institution (minimum number of students has been set to be conditionally 200), and creation of educational centres. A fieldwork analysis of the network of secondary schools has been prepared and the Enactment on Network of Public Secondary Schools in Serbia is being prepared as well as the Decision on Dismantling Old and Founding of New Secondary Schools (38 secondary schools in 19 pairs in horizontal optimization).

There is an assumption that describes activities related to school network optimisation will improve distribution and equity in the allocation of resources.

## II. 'Open floor'

E.1.3 - At the end of 2018, after many years of postponement, the process of passing exams for school director licenses started. So far, 362 directors of schools and preschool institutions have acquired the requirement for passing a licensing exam, which is about 20% of the total number of directors. Among those who had already obtained the condition for taking the exam, the condition was that in the previous external evaluation cycle as school managers were rated the highest grade, there are about 50 directors of VET schools.

### III. Summary and analytical conclusions

**The new legal framework strengthened the responsibilities of the MoESTD**, thus some of the responsibilities of the National Education Council and the Council for Vocational Education and Adult Education were passed on under the responsibility of the MoESTD (adoption of curricula and teaching and learning programs, adoption of standards) whereby the Councils only retained their advisory role. There is also a new procedure for the selection of the heads of educational institutions - instead of the school board, this has become competence of the minister.

Parallely, **legislation pays more attention to accountability** determining in more details the responsibility of all the actors involved in the education process.

In order to improve the efficiency of the governance system, in the course of 2018, **the Commission for the Development and Implementation of Dual Education was established by the Government**.

At the school level, the management body is still a school board

**One of the principles of VET in Serbia is establishing a social partnership at the national and local level**, e.g. sectoral councils are formalized by the adoption of the Law on NQFS, representatives of CCIS and representatives of Associations of employers are members of sector skills councils and the NQF Council, MoESTD, economy representatives, local self-government and social partners are jointly creating enrolment policy, etc. However, the civil society sector is still not seen as a permanent member in the governance process.

In the period since the adoption of the Strategy SEDS and its Action Plan, **no significant steps have been made in order to change the system financing pre-university education** even in both documents, a new model of financing per student is foreseen - financing is still input-based.

**The introduction of the Medium-term Expenditure Framework (MTEF) for the Education Sector in 2016 represents a major improvement in financial planning** in education in Serbia. It serves as a tool for monitoring the implementation of the reform measures in the sector by tracking and comparing the execution of planned allocations from year to year.

Public secondary education in Serbia is funded from central government level, local level and from own income of secondary schools. **18,8% of the total expenditure on education from the central government is allocated for secondary education**.

**There are currently no subsidies for employers entering dual education**, but according to the Law on Dual education law, from 2019/20 school year employers engaged in dual education **will be in charge for reimbursement of different cost of students and will pay students per hour spent in work-based learning in the net amount not lower than 70% of the minimum wage** set in conformity with the law.

**Total public expenditure per student has risen** in the recent years at all levels of education, mostly as a consequence of the reduction of the student population **but these funds have not been invested in the development of education** but have been used for financing the existing number of employees.

Recently, **activities related to the school network optimisation took place**, so improvement in distribution and equity in the allocation of resources is expected.

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# ANNEXES

## Annex 3: Benchmarking - Serbia and EU targets in education and employment

	SERBIA		EUROPEAN UNION		EU OBJECTIVE
	2010	2017	2010	2017	2020
Early leavers from education and training	8,2	6,2	13,9	10,6	< 10
Tertiary educational attainment	20,5	31,4	33,8	39,9	≥ 40
Employment rate	51,2	61,4	68,6	72,1	≥ 75
Adult participation in lifelong learning	4,0	4,4	9,1	10,9	≥ 15
PISA - Underachievement in reading	32,8	33,1	19,7	19,7	< 15
PISA - Underachievement in mathematics	40,6	38,9	22,3	22,2	< 15
PISA - Underachievement in science	34,4	35,0	17,8	20,6	< 15
Employment rate of recent graduates (age group 20-34)	39,1	56,9	77,4	80,2	≥ 82

Source: SORS, Eurostat, OECD

\* PISA results refer to 2009 and 2012