QUALITY ASSURANCE IN VOCATIONAL EDUCATION AND TRAINING IN SERBIA

ETF Forum Member Institution: Qualifications Agency

March 2020

CONTENTS

1. INTRODUCTION[1]

1.1 National context

Serbia has a declining population, with about 7 million inhabitants in 2018 (*see* Table 1). The country has positive economic growth – 4.3% of gross domestic product (GDP) growth in 2018 – and is currently ranked as an upper-middle-income economy by the World Bank. The purchasing power parity GDP per capita of international $16 433 in 2017 places the country as the best performer among the Western Balkan countries[2].

Serbia was granted European Union candidate status in March 2012 and the formal negotiation process with the European Commission was initiated in December 2015.

Education-related statistics indicate progress from 2010 to 2018, shown by the increased educational attainment of the active adult population. In 2018, those with a high level of education represented 25.9% of the active adult population, those with a medium level of education accounted for 58.0%, while 16.2% had a low level of education. Employment grew from 46.7% in 2017 to 47.6% in 2018 according to Eurostat data. Unemployment decreased to 12.8% in 2018 (from 13.6% in 2017), although remaining at 29.7% among young people aged 15 to 24[3].

The economy relies largely on the service and industry sectors, which is also reflected in the structure of employment. In 2018, the service and industry sectors contributed to 51.0% and 25.9% of GDP respectively[4]. Within the service sector, trade, the increasingly strong information and communications technology (ICT) and catering fields have shown impressive growth as a direct consequence of the efforts to enhance tourism during recent years. In the case of industry, the driving sectors are construction and manufacturing, in particular rubber, machinery and chemicals.

1.2 Statistics

TABLE 1. POPULATION

	Size of population	Relative size of youth population (15–24, %)
2010	7 306 677	15.0
2014	7 146 759	14.4
2018	7 001 444	13.5

Source: Eurostat

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[1] This paper is based on the Torino Process 2018–20 Serbia national report (https://openspace.etf.europa.eu/trp/torino-process-2018-2020-serbia-national-report), and on the Progress towards the medium-term deliverables of the Riga Conclusions in the period 2015–19 Serbia report (www.etf.europa.eu/en/publications-and-resources/publications/developments-vocational-education-policy-serbia)

[2] ETF database

[3] Ibid.

[4] Ibid.

TABLE 2. EMPLOYMENT

	Employment rate (15+, %)	Employment rate of young people (15–24, %)
2010	38.0	15.3
2014	42.0	15.1
2018	47.6	21.1

Source: Eurostat

TABLE 3. EDUCATIONAL ATTAINMENT OF ACTIVE POPULATION (% AGED 15+)

	Low	Medium	High
2010	21.2	59.4	19.3
2014	17.7	59.5	22.8
2018	16.2	58.0	25.9

Note: Low – International Standard Classification of Education (ISCED) 0–2; Medium – ISCED 3–4;
High – ISCED 5–8
Source: Eurostat

TABLE 4. PARTICIPATION IN VOCATIONAL EDUCATION AND TRAINING (VET) (STUDENTS IN VOCATIONAL PROGRAMMES AS A PERCENTAGE OF TOTAL UPPER SECONDARY STUDENTS)

	Upper secondary (ISCED 3) VET
2010	76.1
2014	75.4
2017	74.4

Source: UNESCO (2010) and Eurostat

1.3   The VET system

Governance and management

The key institution responsible for governance of the education sector is the Ministry of Education, Science and Technological Development (MoESTD), which is also responsible for VET. The governance structure also involves the Council for Vocational Education and Adult Education (CVEAE) and the National Education Council.

The CVEAE is primarily an advisory body[5] established by the Law on the Foundations of the Education System[6]. It can provide guidance on the development and improvement of the quality assurance of secondary VET as well as adult education. Moreover, it contributes to the preparation of strategies in the vocational field and promotes the link between education and the labour market.

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[5] Part of the responsibilities of the CVEAE (e.g. the adoption of curricula and standards) were moved to the MoESTD in 2017.

[6] The Law on the Foundations of the Education System (*Official Gazette*, Nos 88/17, 27/18 and 10/19).

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Besides the above-mentioned institutions, the following are also active in the area of education quality assessment and improvement: the Qualifications Agency, the National Entity for Accreditation and Quality Assurance in Higher Education, the Institute for the Improvement of Education (IIE) and the Institute of Educational Quality and Evaluation. These public institutions perform different quality assurance processes throughout the Serbian education system.

In addition, the Chamber of Commerce and Industry of Serbia, together with the MoESTD, has a leading role in the implementation of dual education, securing cooperation between employers and the education sector.

Financing

Public secondary education is financed through resources provided by central government and local municipalities. The financing system is input-based, i.e. resources are allocated according to the number of classes within each school. While the central government is responsible for providing resources for staff salaries, the local governments are responsible for other costs, for example those connected with building maintenance, teaching materials, capital expenditure and costs connected with continuing professional development (CPD) of teachers. In addition, schools at the secondary level can generate their own income.

Moreover, employers involved in dual education are asked to cover selected costs, such as student insurance, meals and transport, and personal protective equipment.

Regulatory frameworks

The following key laws frame the Serbian education system: Law on the Foundations of the Education System; Law on Secondary Education; and Law on Adult Education. Two additional laws were adopted in 2017 and 2018: Law on Dual Education and Law on National Qualifications Framework (NQF).

The reform process is supported by the Strategy for Development of Education in Serbia together with the Action Plan for its implementation, which is valid until 2020. The key objectives of the strategy, which covers VET, is the provision of high-quality education for all, an increase of students' coverage and attainment at all levels of education, and increased efficiency and relevance of education. In line with the strategy, progress can be seen, for example, in the promotion of dual education, in supporting access for vulnerable groups, and monitoring and strengthening of CPD opportunities for teachers.

The overall quality of the system is based on the following standards: student/trainee achievement standards; quality standards for institutional operations; textbook quality standards; competency standards for teachers; and competency standards for headteachers[7]. In addition, the Law on NQF introduces the institutional and methodological framework for the development of qualification standards, self-evaluation and external evaluation standards of providers in non-formal adult education.

In 2019, the Serbian government, through the MoESTD, launched work on the Education Strategy 2030.

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[7] Ibid.

Main provider institution types

VET is mainly provided by public institutions. VET is largely school-based with varying amounts of time dedicated to practical training/learning in workplaces or in school laboratories/workshops. According to the available statistics, around three-quarters of students at the upper secondary level attended VET programmes during the academic year 2017/18. More specifically, 152 723 students were enrolled in four-year programmes and 30 407 enrolled in three-year programmes[8].

In addition, the development of dual education is promoted through the Private Sector Development Project and specific bilateral and institutional agreements, for example through the cooperation between the MoESTD, the Serbian Chamber of Commerce and Industry, the Austrian Chamber of Commerce and the Austrian government. Dual education is currently offered by 84 schools (i.e. approximately a quarter of VET schools) and covers about 4 500 students[9].

Adults participate in VET programmes organised by both secondary VET schools and different provider institutions in the non-formal sector. Currently, 32 institutions providing training programmes for adults are officially recognised by the MoESTD, having passed the established accreditation procedure. In total, 132 programmes have been accredited. Moreover, the Qualifications Agency has started the accreditation of private providers according to the Law on NQF.

Main provision/programme types

Upper secondary VET is provided in vocational schools and comprises three- and four-year programmes that enable direct progression to higher education.

Three-year programmes include approximately 35% general and 65% vocational education. According to the established standard, practical classes should be one day per week during the first year of studies up to three days per week in the third year of studies. In general, practical classes take place in school workshops or through a combination of classes in school workshops and in companies. The practical classes in the workplace can be up to 25% of the total number of hours dedicated to the practical classes. For dual education, the practical classes take place exclusively in companies. Final examination takes place at the end of the study programme.

Four-year programmes include approximately 45% general and 55% vocational education. Although the time for practical classes is lower than for three-year programmes, where dual-based profiles exist, in-company training is mandatory.

For adult education, several training programmes exist to help learners acquire the necessary professional competences or qualifications based on labour market needs. Currently, 32 institutions providing 121 training programmes for adults are formally recognised and accredited.

Main qualifications according to ISCED levels

The existing three- and four-year VET programmes are provided at ISCED 3C and ISCED 3B levels, respectively.

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[8] Torino Process 2018–20 Serbia national report
[9] Ibid.

2. QUALITY ASSURANCE IN VOCATIONAL EDUCATION AND TRAINING

2.1 Overview

Ensuring quality education is one of the key goals of the country's strategy. Quality assurance is then ensured through external evaluation and school self-assessment. The standards and key evaluation areas are defined in respective regulations. In total, six key evaluation areas are recognised for which standards and indicators are developed. The assessment of quality is performed at the school level.

2.2 General information on quality assurance at VET system level

Responsibility for VET quality standards and monitoring compliance is well distributed and some of the key elements of quality assurance and monitoring are already in place. The National Agency for Qualifications hosts the European Quality Assurance in Vocational Education and Training (EQAVET) National Reference Point. It is responsible for the development of qualification standards, and can propose quality assurance measures throughout the entire education system. In addition, the IIE is involved in policy making and the development of some elements of quality assurance. Also, the Institute of Educational Quality and Evaluation contributes to the process of defining education standards and is involved in monitoring and evaluation. The MoESTD adopts VET curricula and the final examination programme. Finally, the National Education Council adopts standards of general education and monitoring and evaluation standards for all schools.

Key regulatory mechanisms related to quality assurance include:

- a national registration system for initial VET (IVET)/continuing VET (CVET) providers, including external review. Meeting provider quality standards is a legal condition of accreditation;
- a regulated accreditation system for non-formal VET providers;
- a national quality assurance framework covering formal education, including IVET and CVET providers, which prescribes mandatory self-assessment and external assessment. The approach is compatible with the EQAVET Framework and is aligned to the EQAVET quality cycle, indicative descriptors and indicators;
- quality standards for validation of non-formal and informal learning defined in the Concept Paper, which serves as a basis for the Rulebook on Validation;
- the Rulebook on Programmes for VET Matura and VET Final Examinations established in 2018. The Law on NQF was adopted in 2018.

2.3 Quality assurance related to key VET areas

Evidence – statistics, and research and development

The MoESTD is responsible for VET system monitoring. Data is collected through the unique Information System of Education and Science, Dositej, which also envisages monitoring VET graduates' progression. This open data system enables regular analysis and monitoring. Data is also collected on EU 2020 benchmarks.

The collected sets of indicators, harmonised with international statistical standards, have been defined, and registries of education/science institutions have been established. Currently, data is collected in 14 registers.

A systematic labour market information system is in place. The National Employment Agency of Serbia holds an advantageous position as it has acquired extensive expertise by rolling out annual employers' surveys and labour market analyses. Moreover, the Serbian Ministry of Labour, Employment, Veteran and Social Policy and other relevant stakeholders have initiated work on setting up the institutional and methodological framework for the development and update of national classification of occupations and occupational standards.

The labour market data is not used extensively by the education sector. There is also the need for a regular longer-term forecasting system to inform educational planning as well as better communication of existing data and research.

In 2020, the MoESTD and Statistical Office of the Republic of Serbia launched an initiative, supported by the EU and other partners, to consolidate the unified education information system. In addition, in 2019–20, the Statistical Office started to work on the development and integration of the labour market and qualifications information system. Its scope is to design and implement the first steps for the full deployment of the system that will operationalise sector skills councils and support results-based decision making, policy design and evaluation. Key partners in this endeavour are the ministries responsible for education and labour policies, the newly established Qualifications Agency and the National Employment Service.

Quality assurance and the qualifications cycle

The position and efforts of the government are directed to a deeper institutionalisation of the concept of learning outcomes and key competences as a starting point in the development of educational and learning programmes, a coherent quality assurance system, and dialogue between relevant actors inside and outside the education system, especially the labour market and economy.

The Law on NQF aims to support the establishment of the NQF and to integrate the existing qualifications. At the same time, it refers to the establishment of a quality assurance system in the process of planning, development, acquisition, certification and evaluation of qualifications. To support these efforts, new bodies have been established, i.e. the National Agency for Qualifications and sector skills councils. The agency oversees implementation and monitoring of the system as well as the coordination of the NQF Council. Sector skills councils, established on the principle of social partnership, act as expert and advisory bodies responsible, for example, for the identification of new qualifications and for making decisions on drafting of standards for qualifications. Currently, 12 sector skills councils are active, covering the sectors of education and the economy[10].

In February 2020, the MoESTD, the National Qualifications Agency and the related institutions presented the National Qualifications Referencing Report with the European Qualifications Framework (EQF). The purpose of the referencing is to present transparently to other countries the way Serbia has connected its levels of qualifications with the EQF. Its integral part is the Supplementary Report

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[10] http://noks.mpn.gov.rs/en/decisions-on-the-establishment-of-sector-skills-councils/

on the Self-assessment of NQF in the field of higher education compared to the Qualifications Framework in the European Higher Education Area[11].

The initiative to develop new standards for a new qualification can be submitted by the sector skills 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 or other legal entity. The initiative is then submitted to the Qualifications Agency, which prepares its pre-assessment. If the initiative is considered relevant, the agency makes a recommendation for the development of a new qualification and sends it with the accompanying study to the appropriate sector skills council.

If it is considered to be justified, the sector skills council decides on the development of qualification standards and commissions the agency to develop a proposal for it. The Qualifications Agency, within 60 days, develops a qualification standard and submits it to the NQF Council, which then passes the proposal to the MoESTD for adoption. The MoESTD adopts an act with regards to the proposed qualification standard, which is published in the *Official Gazette* and entered into the sub-register of national qualifications and the sub-register of qualification standards.

Quality assurance and VET provision/provider institutions

The MoESTD decides on the accreditation standards for VET providers, including adult education providers[12]. The MoESTD, the CVEAE and the National Education Council set quality standards for the learning environment. Standards (norms) for school equipment, teaching conditions and teacher qualifications for VET curricula are defined for every qualification by the IIE.

The MoESTD together with the Institute of Educational Quality and Evaluation conduct the external evaluation of VET providers using standardised procedures and tools. Such evaluation, which is performed at least once every six years, is based on the analysis of documents, interviews and direct class observations.

In addition, school principals are legally responsible for school self-evaluation, quality assurance and achievement of standards. Self-assessment should be performed every year in one (or more) of the key evaluation areas and overall assessment every four to five years. The measures for such self-evaluation are defined by the Rulebook on Quality Assessment of Institutions. Self-assessment is organised by a team consisting of internal and external stakeholders. The results of such assessments should then be shared with teachers, parents, the school board and any other interested parties. At the end of the process, the team prepares annual self-assessment plans for one or more evaluation areas defined by the school's quality standards. The plan describes activities, timeframe, actors, instruments and techniques. Development plans are then prepared based on self-assessment reports.

Key evaluation areas, standards and indicators are legally defined and include school programming, planning and evaluation; teaching and learning; student performance; support for students; ethos; and the organisation of the school work, human resources and material resources management.

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[11] http://noks.mpn.gov.rs/en/referencing-nqfs-with-%D0%B5qf/

[12] The Qualifications Agency is responsible for the accreditation of private providers.

Quality assurance and VET teacher/trainer qualifications standards and continuing professional development

The Centre for the Professional Development of Teachers, within the IIE, is responsible for developing standards of competences for teachers and school principals. In general, teachers of general subjects should have a higher education diploma. Teachers of vocational subjects need to have completed at least NQF/EQF level 5 when teaching practical classes and level 6 for teachers of vocational subjects. In addition, teachers of practical classes must have at least five years' experience.

For dual education, one of the conditions prescribed by law is that a company must have licensed instructors. The Rulebook on the Training Programme, Conditions and Other Issues Related to the Examination of Instructors was finalised in 2018. The training should be organised by the Chamber of Commerce and Industry of Serbia, and the training programme, as developed by the IIE, should cover five areas: implementation of the legislative framework in work-based learning; planning and preparation of work-based learning; its realisation; monitoring and evaluation of competences; and supporting students' development. The Chamber started to provide such training in 2019 and currently there is a pool of trainers that have been selected and trained.

The schools are required to provide teacher induction and a mentor to new teachers, who, after completion of the induction programme and one-year teaching experience, can take the licensing examination.

The MoESTD together with the CVEAE and the National Education Council set teaching quality standards. Teacher competence standards define competences in four categories: (i) subjects and methodologies; (ii) teaching and learning;(iii) student personal development; and (iv) communication/cooperation.

CPD is mandatory for VET teachers, with the obligation of attending at least 100 hours of development programmes over five years. The Centre for the Professional Development of Teachers (within the IIE) is responsible for the accreditation of CPD programmes. The MoESTD and the IIE manage the monitoring and evaluation of the CPD programmes. The latter can also be commissioned to implement research on the effects of CPD. Currently, the quality of the training programmes is monitored at the end of each training programme, but the intention is to move to a new methodology, which is being developed under the coordination of the Institute of Educational Quality and Evaluation.

According to the Rulebook, principals are responsible for providing conditions for teachers' CPD according to the set standards. Overall, teacher and principal standards inform the self-evaluation guidelines for teachers and schools. Currently, CPD faces funding and relevance challenges.

Finally, in 2018, the quality system in the field of management of education institutions was established through the Rulebook on the Training Programme and Examination Related to the Licence for the Director of Educational Institutions. The first examination was conducted in December 2018.

3. STRENGTHS, DEVELOPMENTS, NEEDS

New developments – in progress/in the pipeline

- Qualification standards are now being developed within the new institutional and methodological framework.
- The Qualifications Agency and sector skills councils are fully operational.
- National state Matura exams, covering both general and vocational Matura, are in the development and testing phase. Implementation is planned for 2021.

Needs and challenges

Challenges in relation to improving quality assurance in VET include the need to:

- establish effective mechanisms for engagement of VET stakeholders, including a legislative framework for social partnership;
- put in place an effective labour market information system;
- progress implementation of the NQF;
- upskill teachers to support changes in VET curricula, qualifications and quality assurance requirements;
- promote further development of the EQAVET Reference Framework in the national context.

4. GOOD PRACTICE EXAMPLE: QUALITY ASSURANCE OF QUALIFICATIONS

Qualifications standards, outcome-based curricula and standards for programmes/approval of programmes for formal VET have a legal basis. The Law on the Foundations of the Education System outlines the balance between general and vocational subjects in VET profiles, with the volume of practical learning based on standards for specific qualifications. Qualification standards are used as the basis for curriculum development.

The National Curriculum Framework focuses on general and cross-curricular competences, achievement standards and learning outcomes, rather than on content. The Rulebook on Student Assessment in Secondary Education provides assessment criteria, methods and procedures for individual subjects. The assessment methods form part of curricula and teachers have discretionary power to adapt the assessment criteria.

LIST OF ACRONYMS

CPD	Continuing professional development
CVEAE	Council for Vocational Education and Adult Education
EQAVET	European Quality Assurance in Vocational Education and Training
EQF	European Qualifications Framework
ETF	European Training Foundation
EU	European Union
GDP	Gross domestic product
IIE	Institute for the Improvement of Education
ISCED	International Standard Classification of Education
MoESTD	Ministry of Education, Science and Technological Development
NQF	National qualifications framework
VET	Vocational education and training

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find out more

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